# EPA REGISTRATION NUMBER 524-330 – VOLUME 1

Note to File:

At the Next Agency action, Please ask Registrant to Delet instructions Prohibiting the Reformulation or Repackaging of their product. That Statement is unenforceable

S. Morrill
10/27/91

Note to File:

At the Next Agency action, Please ask Registrant to Delet instructions Prohibiting the Reformulation or Repackaging of their product. That Statement is unenforceable

S. Morrill
10/27/91

221893

Please Read All Instructions Before Completing This Form *(Form must be typed)* Form Approved. OMB No. 2070-0044. Approval Expires 1-31-95

EPA

United States Environmental Protection Agency
Office of Pesticide Programs (H7505C)
401 M Street SW
Washington, DC 20460

# Notice of Supplemental Distribution of a Registered Pesticide Product

## *Instructions*

After a registrant has obtained final registration for the basic product, the registrant may then supplementally distribute his/her product. One form must be submitted for each distributor product and must be signed by the distributor involved. The basic registration number and the distributor company number must be shown.

If a registrant has a potential distributor who does not have a company number assigned, she/he should have the distributor apply, on letterhead stationary, to the Registration Division to have a number assigned prior to submitting this form to the agency.

This Notice of Supplemental Distribution must be submitted by the basic registrant. The completed form must have the concurrence and signature of both the registrant and the distributor.

| EPA Registration Number of Product | Distributor Company Number |
|---|---|
| 9 524-330 1 | 6 59144 |

**Note: Do not submit distributor product labels**

| Name of Registered Product *(basic product name accepted by EPA)* | Distributor Product Name |
|---|---|
| Roundup L.G. Ready-to-Use Grass & Weed Killer | Green Charm Eliminator Ready-To-Use Systemic Weed & Grass Killer |

**Name and Address of Distributor** *(Type; include ZIP code)*

Gro Tec, Inc.
P.O. Box 290
Madison, GA 30650

***Read All Conditions Before Signing***

1. The distributor product must have the same composition as the basic product.
2. The distributor product must be manufactured and packaged by the same person who manufactures and packages the registered basic product.
3. The labeling for the distributor product must bear the same claims as the basic product, provided, however, that specific claims may be deleted if by doing so, no other changes to the label are necessary.
4. The product must remain in the manufacturer's unbroken container.
5. The label must bear the EPA registration number of the basic product, followed by a hypen and the distributor's company number.
6. Distributor product labels must bear the name and address of the distributor qualified by such terms as "packed for...,"distributed by..."; or sold by..." to show that the name is not that of the manufacturer.
7. All conditions of the basic registration apply equally to distributor products. It is the responsibility of the basic registrant to see that all distributor labeling is kept in compliance with requirements placed on the basic product.

**Distributor**

*We intend to market our product under the Distributor Product Name specified above, subject to the conditions specified on this Notice.*

| Signature and Title of Distributor | | Date |
|---|---|---|
| J Matt Kelly | Consultant | 3-21-94 |

**Registrant**

*I agree that the distributor named above may distribute and sell the Distributor Product specified above, subject to the conditions specified on this Notice.*

| Signature and Title of Registrant | | Date |
|---|---|---|
| Katherine A Barton | REGISTRATION SPECIALIST | 4/4/94 |

EPA Form 8570-5 (Rev. 2-92) Previous editions are obsolete.

5·24·94

## Paperwork Reduction Act Notice

The annual respondent burden for the Notice of Supplemental Distribution of a Registered Pesticide Product is estimated to average 15 minutes per response, including time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information. Send comments regarding this burden, to chief, Information Policy Branch, PM 223, U.S. Environmental Protection Agnecy, 401 M Street, S.W., Washington, DC 20460; and to Paperwork Reduction Project (OMB No. 2070-0044), Office of Management and Budget, Washington, DC 20503, Marked "Attention Desk Officer for EPA."

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

JAN - 7 1988

MEMORANDUM

SUBJECT: EPA Registration No. 524-330
Shackle Herbicide

FROM: Deloris F. Graham DFG 1/4/88 F 1/14/88
Technical Support Section
Fungicide-Herbicide Branch
Registration Division (TS-767C)

TO: Robert J. Taylor, PM 25
Fungicide-Herbicide Branch
Registration Division (TS-767C)

APPLICANT: Monsanto Company
1101 17th Street NW.
Washington, DC 20036

ACTIVE INGREDIENTS:
Isopropylamine salt of glyphosate . . . . . 0.96%
INERT INGREDIENTS: . . . . . 99.04%

BACKGROUND:

Submitted Acute Inhalation Study under Agency miscellaneous data code (400). Study conducted Monsanto Company Environmental Health Laboratory, St. Louis, Missouri. Data under EPA MRID No. 402486-01. Method of support not indicated.

RECOMMENDATION:

1. FHB/TSS finds this study acceptable to support conditional registration of this product.
2. The toxicity category based upon this study alone is IV - CAUTION.

LABEL:

No precautionary labeling required in regard to acute inhalation.

REVIEW:

(1) Acute Inhalation Toxicity Study: Monsanto Company; Reference No.: EHL 86148; March 31, 1987; EPA MRID No. 402486-01.

PROCEDURE:

Five male and five female rats were exposed for four hours to a 8.9 mg/l concentration of test material. Nominal concentration reported to be 169 mg/l. Mass median aerodynamic diameter reported to be 4.0 microns. Mean temperature and relative humidity reported to be 24°C and 97% respectively. Observations made for 14 days postexposure. Necropsy performed on all animals.

RESULTS:

No deaths, toxic signs or abnormalities at necropsy reported.

STUDY CLASSIFICATION: Core Guideline Data

TOXICITY CATEGORY: IV - CAUTION

# Monsanto

Monsanto Company
Suite 1100
700 14th Street, N.W.
Washington, D.C. 20005

October 12, 1993

Document Processing Desk (AMEND)
Office of Pesticide Programs
U.S. Environmental Protection Agency
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

CSF
Filed not
acknowledged or routed

Attention: Ms. Vicky Walters
Office of Product Manager (25)

**Subject: ROUNDUP® L&G READY-TO-USE GRASS & WEED KILLER (EPA Reg. No. 524-330, originally SHACKLE™)**

Replacement of CSF Approved 30 September 1993 - Typographical Error

Dear Ms. Walters:

**ROUNDUP® L&G READY-TO-USE GRASS & WEED KILLER** (EPA Reg. No. 524-330), a ready-to-use L&G liquid formulation containing 0.96% isopropylamine salt of glyphosate, was registered by the Agency on March 23, 1987 as an additional brand name to Shackle™ herbicide (approved July 30, 1979). On September 30, 1993 the Agency approved a new Confidential Statement of Formula which supersedes all previous versions of the CSF for all brand names under this registration. In reviewing the approved CSF, Monsanto has identified a typographical error and is submitting a replacement CSF.

On this CSF an extraneous and incorrect additional alternate brand name had been listed under item 3 (Product Name). This name is now deleted on the replacement CSF.

If there are any questions regarding this request, please contact Dr. Russell P. Schneider at (202) 783-2460.

Sincerely,

Darryl E. Brock
Senior Registration Specialist

cc: R. P. Schneider - 1920

enclosure

TELEPHONE: (202) 783-2460 FACSIMILE: (202) 783-2468

Requires No Mixing

# Roundup® L&G

READY-TO-USE

by Monsanto

# Grass & Weed Killer

- SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION
- KILLS LABELED WEEDS AND GRASS, ROOTS AND ALL
- DOES NOT HAVE SOIL ACTIVITY
- SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES, WALKS AND SPOT TREATMENT IN LAWNS

Read the entire label before using this product.
Use only according to label instructions.
NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

Keep out of reach of children.

CAUTION! See back panel for Precautionary Statements and Directions for Use.

This product is protected by U.S. Patents No. 3,799,758, No. 4,405,531 and No. 4,840,650. Other patents are pending. No license granted under any non-U.S. patent(s).

ACTIVE INGREDIENTS:

| | |
|---|---|
| *Glyphosate, N-(phosphonomethyl) glycine in the form of its isopropylamine salt | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

* Trademark of Monsanto Company

©MONSANTO COMPANY 1990

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

NET 1 GAL

EPA Reg. No. 524-330

897.09-000.28-1

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

Keep out of reach of children.

**CAUTION!** If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water when disposing of equipment washwaters.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup® L&G Ready-To-Use herbicide is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of labeled tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE: Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

For more product information, call toll-free 1-800-225-2883.

## Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.


(6) (L)

EPA Est. 56100-LA-001; 524-LA-1

Superscript corresponds to the first letter of the lot number printed on bottom.

MONTSANO COMPANY AGRICULTURAL PRODUCTS ST. LOUIS, MISSOURI 63167 U.S.A.

897.09-000.28-2X2

SEP 30 1993

Mr. Daryl E. Brock
Monsanto Company
700 14 th Street, N.W., Suite 1100
Washington, D.C. 20005

Dear Mr. Brock:

Subject: Roundup L & G Ready-To-Use Grass & Weed Killer (Updated CSF)
EPA Registration No. 524-330
Your Application Dated August 16, 1993

The scientific review and evaluation of the updated confidential statement of formula submitted above have been completed. The request CSF is acceptable and our records have been modified accordingly.

Sincerely.

Robert J. Taylor
Product Manager 25
Fungicide-Herbicide Branch
Registration Division (H7505C)

SUBMISSION REVIEW RECORD G

| 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED (MO / DAY / YR) |
|---|---|---|
| 524 - 330 | | 08 / 18 / 93 |

| 3. 3CIO PUBLICATION NECESSARY | 4. PETITION NO. | 5. RECEIVED PM TEAM (MO / DAY / YR) |
|---|---|---|
| ☐ YES ☐ NO | | |

| 6. METHOD OF SUPPORT | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN (MO / DAY / YR) |
|---|---|---|---|
| ☐ 2A ☐ 2B ☐ 2C | | | |

| 9. DATE PULLED | 10. DATE PUBLISHED | 11. ACTION TYPE | CODE | 12. OUTGOING DATE (MO / DAY / YR) |
|---|---|---|---|---|
| 9/28/93 | | Updated CSF 345 | | |

| REV. SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED (MO / DAY / YR) |
|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | |
| | F | PRODUCT MANAGER | | B/KCW | NAC | 09/28/93 |
| | G | INTERAGENCY REFERRAL | | | | |
| | H | COST-BENEFIT REVIEW | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | |
| | S | | | | | |
| | T | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 6570-13 (3-75)

# Monsanto

Monsanto Company
Suite 1100
700 14th Street, N.W.
Washington, D.C. 20005

August 16, 1993

Document Processing Desk (AMEND)
Office of Pesticide Programs
U.S. Environmental Protection Agency
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

**Subject: ROUNDUP® L&G READY-TO-USE GRASS & WEED KILLER (EPA Reg. No. 524-330, originally SHACKLE™)**

Request for approval of updated Confidential Statement of Formula

Dear Mr. Taylor:

**ROUNDUP® L&G READY-TO-USE GRASS & WEED KILLER** (EPA Reg. No. 524-330), a ready-to-use L&G liquid formulation containing 0.96% isopropylamine salt of glyphosate, was registered by the Agency on March 23, 1987, as an additional brand name to Shackle™ herbicide (approved July 30, 1979). The last CSF (dated February 16, 1987) was approved March 23, 1987. Monsanto now wishes to update the CSF to reflect current suppliers and to present components and certified limits in a more consistent fashion.

**This updated CSF will supersede all previous versions of the CSF for all brand names under this registration.**

The majority of changes in this update are minor and are made simply to conform with the recently approved CSF for the active ingredient source, MON-0139, a 62% solution of isopropylamine salt of glyphosate. This CSF was approved April 1, 1993. These changes are:

- Provide most recent surfactant supplier names and addresses
- Present new active ingredient certified limits based on the nominal concentration being considered as the target concentration (0.96%).

One other minor change is deletion of the excess isopropylamine, phosphoric acid and organic acid lines in the CSF (previously listed as 0.012, .002 and .035%, respectively). Classified as by-products and neutralizing agents, these components are more properly considered constituents of the 62% isopropylamine salt of glyphosate (active ingredient). Their separate listing is redundant. The percent water is adjusted to more accurately reflect the composition.

TELEPHONE: (202) 783-2460 FACSIMILE: (202) 783-2468

**Inert ingredient information may be entitled to confidential treatment**

**Product ingredient source information may be entitled to confidential treatment**



The last change is addition of a third alternative for antimicrobial. This is [redacted] It will be used at the same low level as the current [redacted] and is not likely to change toxicity or toxicity categories for the formulation.

In support of this request, Monsanto is submitting the following items:

- Revised CSF (dated August 12, 1993) reflecting these changes
- Letter of authorization & MSDS from [redacted]

If there are any questions regarding this request, please contact Dr. Russell P. Schneider at (202) 783-2460.

Sincerely,

Darryl E. Brock

Darryl E. Brock
Senior Registration Specialist

cc: R. P. Schneider - 1920

enclosures (3)

SEP 30 1993

Mr. Daryl E. Brock
Monsanto Company
700 14 th Street, N.W., Suite 1100
Washington, D.C. 20005

Dear Mr. Brock:

Subject: Roundup L & G Ready-To-Use Grass & Weed Killer (Clarify and Streamline Label)
EPA Registration No. 524-330
Your Application Dated August 20, 1993

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable. Please submit five (5) copies of your final printed labeling before you release the product for shipmet. A stamped copy of labeling is enclosed for your records.

Sincerely.

Robert J. Taylor VRW
Product Manager 25
Fungicide-Herbicide Branch
Registration Division (H7505C)

FRONT PANEL

**Roundup®**
**L&G**
**READY-TO-USE**
**by Monsanto**
**Grass & Weed Killer**

ACCEPTED
SEP 30 1993

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

*[graphics of weeds dying in 1-7 days]*

- READY-TO-USE, ~~REQUIRES~~ NO MIXING. COVERS XX SQ. FT. *(varies with container size)*
- SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION
- KILLS ~~LABELED~~ UNWANTED WEEDS AND GRASSES, ROOTS AND ALL.
- GUARANTEED RESULTS WITH ONE APPLICATION
- SATISFACTION GUARANTEED OR YOUR MONEY BACK
- DOES NOT HAVE SOIL ACTIVITY
- ~~SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES, WALKS AND SPOT TREATMENT IN LAWNS~~
- SPRAY WEEDS IN AND AROUND FENCES, TREES, DRIVEWAYS, FLOWER BEDS, WALKWAYS, SHRUBS, AND FOR LAWN RENOVATION. *(This "lawn renovation" phrase not for 24 oz container size.)*
- THIS 24 OZ BOTTLE CAN BE REFILLED WITH ONE TABLET OF ROUNDUP® QUIK STIK GRASS & WEED KILLER!. SEE STORAGE AND DISPOSAL SECTION FOR MORE INFORMATION. *(This optional statement is for 24 oz container size only.)*

---

~~Read the entire label before using this product. Use only according to label instructions.~~ *(moved to back panel)*

~~NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.~~ *(moved to back panel)*

**Keep out of reach of children.**
CAUTION!

~~See back panel for Precautionary Statements and Directions for Use.~~
Read precautions and directions on back label.

~~EPA Reg. No. 524-330~~ *(moved to back panel)*

~~MONSANTO COMPANY~~
~~AGRICULTURAL PRODUCTS~~
~~ST. LOUIS, MISSOURI 63167 U.S.A.~~ *(moved to back panel)*

ACTIVE INGREDIENT:

| | |
|---|---|
| *Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt ..... | 0.96% |
| INERT INGREDIENTS ..... | 99.04% |
| | 100.00% |

*(deleted items below are moved to back panel)*
~~This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non U.S. patent(s).~~

~~®Trademark of Monsanto Company~~
~~©MONSANTO COMPANY 1992~~

NET 24 fl oz
~~(1 pt 8 oz)~~ *(deleted)*

~~A 000.26 1~~ *(print plate number)*

BACK PANEL

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

~~Keep out of reach of children.~~
CAUTION~~!~~: If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. ~~Keep children and pets off treated area until spray is thoroughly dry.~~ (*moved to "IMPORTANT" below*) In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.
[*Picture of telephone receiver*]

### ENVIRONMENTAL HAZARDS

Do not apply directly to water.~~ to areas where surface water is present, or to intertidal areas below the mean high water mark.~~ Do not contaminate water when disposing of equipment washwaters.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

**READ THE ENTIRE LABEL BEFORE USING THIS PRODUCT. USE ONLY ACCORDING TO THE FOLLOWING DIRECTIONS AND OBSERVE ALL PRECAUTIONS.**

~~STORAGE AND DISPOSAL~~
(this section moved)

~~Do not contaminate water, foodstuffs, feed or seed by storage or disposal.~~

~~STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.~~

~~DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.~~

~~DO NOT REUSE SPRAY BOTTLE EXCEPT FOR REFILL IN ACCORDANCE WITH THE ROUNDUP® QUIK STIK GRASS & WEED KILLER LABEL. If NOT refilled, rinse thoroughly before discarding in trash.~~

Roundup® L&G Ready-To-Use Grass & Weed Killer ~~herbicide is a nonselective labeled grass and weed killer which,~~ when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of ~~labeled~~ tough annual and perennial ~~grasses and broadleaf~~ weeds and grasses. ~~This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation.~~ Roundup is broken down in the soil by microbes. Once in contact with soil, it has no weed killing activity and will not move in or on the soil to affect nearby vegetation. ~~It is formulated for "spot" application to kill weeds around trees, shrubs, fences, patios, walks, and in flower gardens, and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.~~

HOW TO USE: *(this paragraph is moved up from below)*
**IMPORTANT:** This product is an all-purpose weed and grass killer which can injure or kill all plants ~~vegetation~~ contacted. APPLY ONLY WHEN THE AIR IS CALM. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. If necessary, shield desirable plants to prevent contact with spray. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Rainfall within 6 hours could affect performance. ~~Do not apply when rainfall is expected within 24 hours.~~ Avoid mowing, cutting or otherwise disturbing ~~treated~~ sprayed vegetation for at least 7 days. ~~Keep children~~ People and pets should stay off ~~treated~~ sprayed area until ~~spray is~~ thoroughly dry to ensure that product is not tracked into areas where desirable plants are growing.

~~How To Use:~~ For spot application adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from ~~the~~ weeds, grasses, and undesirable plants, and apply ~~to~~ until completely covered. ~~the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds.~~ Sprayed plants usually show effects within one week with complete kill in 2 to 4 weeks. For best results, apply to actively growing weeds, grasses and

undesirable plants in warm sunny weather. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Sprayed ~~treated~~ areas ~~in lawns~~ can be reseeded or replanted, 7 or more days after application.

**WEEDS CONTROLLED:** Roundup Ready-To-Use will completely kill most tough annual weeds, grasses and any undesirable plants found in and around fences, trees, driveways, flower beds, walkways and shrubs.
[*PICTURES OF 4-5 COMMON WEEDS*]

Bahiagrass, Barnyardgrass, Bermudagrass, Blackberry~~ies~~, ~~Canada~~ Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, ~~Field Sandbur,~~ Foxtail, Johnsongrass, Kentucky Bluegrass, Kudzu, Lambsquarter~~s~~, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass,~~—Red~~ Clover Shepherdspurse, ~~Smooth Bromegrass, Sowthistle, White Clover~~ and Yellow Nutsedge and many other annual and perennial grasses, weeds, sedges and brush.

~~**IMPORTANT:** This product is an nonselective weed killer which can injure or kill all plants contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.~~ (*moved above*)

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**STORAGE AND DISPOSAL**
(*moved from above*)

~~Do not contaminate water, foodstuffs, feed or seed by storage or disposal.~~

STORAGE: ~~USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area.~~ Store this product only in its original container and in a secured storage area. Protect ~~product~~ container from freezing.

PRODUCT DISPOSAL:

- Monsanto is committed to responsible environmental practices and recommends that all of the product be used up, carefully following all label directions and precautions.

- If necessary to dispose of ~~unused product,~~ partially filled product container, then securely wrap ~~original container~~ it in several layers of newspaper and discard in trash. ~~In case of SPILL or LEAK, soak up with paper towels and discard in trash~~ (sentence moved to below)

EMPTY CONTAINER:

(*text for 24 oz container size*)

- DO NOT REUSE SPRAY BOTTLE EXCEPT FOR REFILL IN ACCORDANCE WITH DIRECTIONS ON THE ROUNDUP® QUIK STIK GRASS & WEED KILLER LABEL. ~~If NOT refilled, rinse thoroughly before discarding in trash.~~ If NOT used for refill, securely wrap empty container in several layers of newspaper and discard in trash. *(Refill language is optional)*

(*text for other container sizes.*)

- Do not reuse container. Securely wrap empty container in several layers of newspaper and discard in trash.

SPILL OR LEAK: In case of spill or leak, soak up with paper towels and discard in trash.

For more product information or questions, call toll-free 1-800-225-2883, 8:30 am - 5:00 pm Central Time. MONDAY-FRIDAY [*Picture of telephone receiver*]

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*(moved from front panel)*

**NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.**

**This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).**

*Trademark of Monsanto Company
*MONSANTO COMPANY1992 *(year of copyright)*

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

EPA Reg. No. 524-330

~~EPA Est. 56100-LA-001~~

EPA Est. (G)56100-LA-001;(L)524-LA-1;(I)239-IA-3;(M)239-MO-1
Lot number prefix G,L,,II or M indicates apropriate establishment number.

~~A-000.26-2~~ *(print plate number)*

Proof-of-purchase

| SUBMISSION REVIEW RECORD G | 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED |
|---|---|---|---|
| | 3 2 4 - 3 3 0 | | MO 0 8 DAY 2 3 YR 9 3 |

| 3. IOIO PUBLICATION NECESSARY | 4. PETITION NO. | 5. RECEIVED PM TEAM |
|---|---|---|
| ☐ YES ☐ NO | | MO DAY YR |

| 6. METHOD OF SUPPORT | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN |
|---|---|---|---|
| ☐ 2A ☐ 2B ☐ 2C | | | MO DAY YR |

| 9. DATE PULLED | 10. DATE PUBLISHED | 11. ACTION TYPE | CODE | 12. OUTGOING DATE |
|---|---|---|---|---|
| 9/28/93 | | Reuse of Label Language + reformating 300 | | MO DAY YR |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO | DAY | YR |
|---|---|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | | | |
| | F | PRODUCT MANAGER | | UKW | NAC | 09 | 28 | 93 |
| | G | INTERAGENCY REFERRAL | | | | | | |
| | H | COST-BENEFIT REVIEW | | | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | | | |
| | S | | | | | | | |
| | T | | | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

# Monsanto

Monsanto Company
Suite 1100
700 14th Street, N.W.
Washington, D.C. 20005

August 20, 1993

Document Processing Desk (AMEND)
Office of Pesticide Programs
U.S. Environmental Protection Agency
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

**Subject: ROUNDUP® L&G READY-TO-USE GRASS & WEED KILLER (EPA Reg. No. 524-330)**

Submission of Draft Container Labels Amended to Enhance Consumer Readability

Dear Mr. Taylor:

**ROUNDUP® L&G READY-TO-USE GRASS & WEED KILLER** (EPA Reg. No. 524-330), a ready-to-use L&G liquid formulation containing 0.96% isopropylamine salt of glyphosate, was registered by the Agency on March 23, 1987 as an additional brand name to Shackle™ herbicide (approved July 30, 1979) and was last amended July 13, 1992. Monsanto now wishes to amend the registration to clarify and streamline text to promote consumer understanding and familiarity with label information. These changes are essentially identical to those in Agency amendment approvals of March 15, 1993 and August 11, 1993 for *Roundup L&G Ready-To-Use Fast Acting Formula Grass & Weed Killer* (EPA Reg. No. 524-451), another 0.96% formulation. In developing a more "user-friendly" label, Monsanto hopes to encourage users to read and carefully follow all label directions and precautions.

**Proposed Label Amendments**

Several minor additions, rephrasings, rearrangements and deletions occur throughout the label. The more significant ones are:

FRONT PANEL

1. Graphic is added of weeds dying over several days.

2. BULLET POINTS - changes and deletions include addition of a container-specific coverage statement (particularly for lawn renovation or turf clearance for small gardens) and an application statement (to communicate product effectiveness based on extensive field tests).

TELEPHONE: (202) 783-2460 FACSIMILE: (202) 783-2468

BACK PANEL

3. HAZARDS - the phrase *Keep children and pets off treated area until spray is thoroughly dry* is moved to HOW TO USE (under DIRECTIONS FOR USE, also on the back panel) and the statement is expanded to clarify its intent. The HAZARDS section is intended to identify medical hazards, their practical treatment and emergency contact information. The advisory to keep off treated areas was originally added to the label to prevent injury to desirable plants by minimizing tracking of the sprayed product to other vegetation. In moving the phrase to a more relevant portion of the label, the statement is also broadened to include *all* people in the advisory.

4. STORAGE AND DISPOSAL - this section is moved to after DIRECTIONS FOR USE so as to promote better understanding of use directions and to encourage their adherence.

5. DIRECTIONS FOR USE: The first extended paragraph is rewritten to excise redundant statements and to replace use of technical terms (e.g., leach, formulated) with language more familiar to the user. The paragraph IMPORTANT is moved to HOW TO USE to more readily acquaint the user with important use practices to gain best results. A new sentence advising shielding of desirable plants from sprays is added to minimize accidental plant injury.

6. WEEDS CONTROLLED - a graphic of several labeled weeds is added.

7. STORAGE AND DISPOSAL - Monsanto is committed to responsible product stewardship and wishes to discourage undesirable disposal of pesticide products (e.g., pouring down drains or sewers). Numerous telephone calls to the Monsanto Residential Products 1-800 Consumer Help-line reveal that users find current Storage and Disposal statements confusing and potentially contradictory. Monsanto believes succinct, consistent and more "user-friendly" instructions will promote responsible environmental practices by users.

   a) According to PR Notice 83-3, the statement "Do not contaminate water, food, or feed by storage or disposal" is not required on household products. An equivalent Monsanto statement was inadvertently added to previous versions of this label and is now deleted.

   b) DISPOSAL - the first two sentences of the second paragraph are combined to reduce redundancy.

   c) DISPOSAL is clarified with specific headings and short sections on PRODUCT DISPOSAL, disposal of EMPTY CONTAINER and SPILL OR LEAK instructions. An explicit recommendation is added encouraging the consumer to use up all product so that disposal will not be necessary.

   d) EMPTY CONTAINER - Calls received on the 1-800 Consumer Help-line indicate consumers are confused by product disposal statements. Requiring (landfill) disposal of *partially filled* containers but rinsing of *empty* containers does not seem consistent to the user. The result is that a half full container need not be rinsed, but if a few drops are present, rinsing is required. Monsanto agrees that this appears contradictory and is potentially confusing. PR Notice 83-3 provides for Agency consideration of alternate disposal language proposals. Monsanto proposes to delete the empty container rinsing re-

BACK PANEL (continued)

requirement and replace it with the instruction to wrap the *empty* container in newspaper prior to disposal. This provides consistent disposal instructions for both product and empty containers, while promoting responsible practices.

e) EMPTY CONTAINER refill statement - a qualifier is added clarifying that use of this statement in final printed labels is optional.

8. EPA ESTABLISHMENT NO. - additional establishment numbers are added.

Monsanto is submitting five (5) copies the 24 fl oz container label for Agency review and approval. In these draft labels, all deletions are lined through and additions of new text are highlighted to aid the reviewer. The label drafts are accompanied by a completed *Application for Pesticide Registration* (EPA Form 8570-1) and a *Certification with Respect to Citation of Data.*

If there are any questions regarding this request, please contact Dr. Russell P. Schneider at (202) 783-2460.

Sincerely,

Darryl E. Brock

Darryl E. Brock
Senior Registration Specialist

cc: R. P. Schneider - 1920

enclosures (7)

# Monsanto

Monsanto Company
Suite 1100
700 14th Street, N.W.
Washington, D.C. 20005

September 7, 1993

Document Processing Desk (AMEND)
Office of Pesticide Programs
U.S. Environmental Protection Agency
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention: Ms. Vicky Walters
Office of Product Manager 25

**Subject: ROUNDUP® L&G READY-TO-USE GRASS & WEED KILLER (EPA Reg. No. 524-330)**

Correction of Error in 8/20/93 Amendment Submission

Dear Ms. Walters:

Review of our proposed amendment submitted recently on August 20, 1993 revealed a minor error which we would like to correct. In one location on the cover letter we indicated the incorrect EPA Reg. No. for **ROUNDUP® L&G READY-TO-USE GRASS & WEED KILLER** (EPA Reg. No. 524-330). It was referred to incorrectly as EPA Reg. No. 524-451, which is a different 0.96% glyphosate product.

Enclosed is an annotated copy clearly indicating the error; a corrected replacement page is also enclosed so that the record will be accurate.

We hope this has not caused undue inconvenience. If there are any questions regarding this request, please contact Dr. Russell P. Schneider at (202) 783-2460.

Sincerely,

Darryl E. Brock

Darryl E. Brock
Senior Registration Specialist

cc: R. P. Schneider - 1920

enclosures (2)

TELEPHONE: (202) 783-2460 FACSIMILE: (202) 783-2468

*Please read Instructions on reverse before completing form.*

Form Approved. OMB No. 2070-0060. Approval expires 11-30-93

(A) EPA

United States Environmental Protection Agency
Office of Pesticide Programs (H7505C)
Washington, DC 20460

**Application for Pesticide:**

[ ] Registration
[ ] Amendment
[X] Other

OPP Identifier Number: 190615

## Section I

1. Company/Product Number: 524-330
2. EPA Product Manager: Robert J. Taylor
3. Proposed Classification: [X] None [ ] Restricted
4. Company/Product (Name): Roundup® L&G READY-TO-USE Grass and Weed Killer
   PM#: 25
5. Name and Address of Applicant *(Include ZIP Code)*
   Monsanto Company
   700 14th Street, N.W., Suite 1100
   Washington, D.C. 20005
   [ ] *Check if this is a new address*
6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:
   EPA Reg. No. _____
   Product Name _____

## Section II

[ ] Amendment - Explain below
[ ] Resubmission in response to Agency letter dated _____
[X] Notification - Explain below.
[ ] Final printed labels in response to Agency letter dated _____
[ ] "Me Too" Application.
[ ] Other - explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

NOTIFICATION

Provide information accompanying labelled product regarding detached sprayer device.
(This is to certify that this notification meets every requirement of PR Notice 88-6)

## Section III

1. **Material This Product Will Be Packaged In:**

| Child-Resistant Packaging | Unit Packaging | Water Soluble Packaging | 2. Type of Container |
|---|---|---|---|
| [ ] Yes* | [ ] Yes | [ ] Yes | [ ] Metal |
| [ ] No | [ ] No | [ ] No | [ ] Plastic |
| | If "Yes," Unit Package wgt. / No. per container | If "Yes," Package wgt. / No. per container | [ ] Glass |
| | | | [ ] Paper |
| | | | [ ] Other (Specify) _____ |

* ***Certification must be submitted.***

3. Location of Net Contents Information: [ ] Label [ ] Container
4. Size(s) of Retail Container
5. Location of Label Directions: [ ] On Label [ ] On Labeling accompanying product
6. Manner In Which Label Is Affixed To Product: [ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other ( _____ )

## Section IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

| Name | Title | Telephone No. (Include Area Code) |
|---|---|---|
| Dr. Russell P. Schneider | Agricultural Regulation Director | (202) 783-2460 |

**Certification**

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature: Darryl E. Brock
3. Title: Senior Registration Specialist
4. Typed Name: Darryl E. Brock
5. Date: 18 August 1993



EPA Form 8570-1 (Rev. 12-90) Previous editions are obsolete. White - EPA File Copy (original) Yellow - Applicant copy

# PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

**PAPERWORK REDUCTION ACT NOTICE:** Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

**INSTRUCTIONS:** This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper or a mockup of the proposed label. If prepared as a mockup, it should be constructed in such a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.
**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

**SPECIFIC INSTRUCTIONS:** Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.
**Block A** - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your **Company Number**, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the **Product Number**.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.
**Subject of Submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; general label revision of use directions." Attach a separate page if additional space is needed.

**SECTION III (Packaging and Container Information)** - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product label is attached to retail container.

**SECTION IV (Contact Point)** - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.
1-5. Self-explanatory.
6. EPA Use Only.

524-330 Roundup® L+G Ready-To-Use Grass + Weed Killer

Requires No Mixing

# Roundup® L&G

READY-TO-USE

by Monsanto

# Grass & Weed Killer

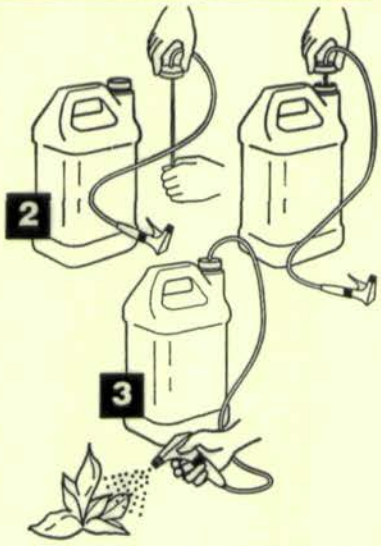
## SPRAYER PREPARATION

1. Remove the sprayer from this bag and open the nozzle by turning the white nozzle tip 1/2 to 3/4 of a turn.
2. Remove the blue cap from the bottle. Uncoil and straighten the plastic tube and insert it in the bottle. After making sure that the tube is fully submerged in the Roundup, screw the white cap onto the bottle.
3. Begin your Roundup application by aiming the sprayer at a target weed or grass.

   ■ Hold the sprayer **BELOW THE CONTAINER AND PUMP IT 10-15 TIMES** until it is fully primed.

   ■ Rotate the nozzle tip to obtain the desired spray pattern — stream or spray.

   ■ Remember to allow the trigger to recover fully after each stroke or the sprayer may not work.



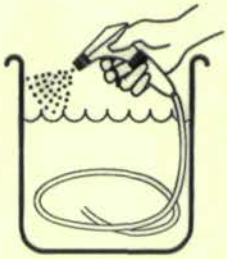

## SPRAYER PROBLEMS

**IF YOUR SPRAYER DOESN'T WORK... TRY THE FOLLOWING:**

■ Make sure that the nozzle tip is not in the off position.

■ Remove the white cap and make sure that the plastic tube is submerged in the Roundup.

■ Remove the sprayer from the bottle. Flush it by spraying clean water through it.



## STORAGE

Rotate the nozzle tip to the **OFF** position. Store the sprayer so that it is **ABOVE** the level of the liquid in the bottle to make sure that the Roundup is not siphoned out.

To extend sprayer life, remove the sprayer from the Roundup and pump clean water through it. Replace the blue cap on the bottle.

**ANY QUESTIONS OR COMMENTS ABOUT ROUNDUP? CALL 1-800-225-2883.**

897.09-000.50

# Monsanto

Monsanto Company
Suite 1100
700 14th Street, N.W.
Washington, D.C. 20005

August 18, 1993

Document Processing Desk (AMEND)
Office of Pesticide Programs
U.S. Environmental Protection Agency
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

**Subject: ROUNDUP® L&G READY-TO-USE GRASS & WEED KILLER (EPA Reg. No. 524-330)**

Notification of Information Regarding Sprayer Device

Dear Mr. Taylor:

**ROUNDUP® L&G READY-TO-USE GRASS & WEED KILLER** (EPA Reg. No. 524-330), a ready-to-use L&G liquid formulation containing 0.96% isopropylamine salt of glyphosate, was registered by the Agency on March 23, 1987 as an additional brand name to Shackle™ herbicide (approved July 30, 1979). This registration was last amended July 13, 1992. Monsanto is notifying the EPA of information regarding the sprayer device which separately accompanies the retail product.

Three refill containers sizes for this product, 1/2, 1 and 2 gallons, may be sold with an optional-use auxiliary sprayer device contained in an attached plastic bag. In this notification, Monsanto is providing you a copy of the sprayer bag and its information about the sprayer device.

Monsanto is submitting this notification under the form *Application for Pesticide Registration* (EPA Form 8570-1). If there are any questions regarding this request, please contact Dr. Russell P. Schneider at (202) 783-2460.

Sincerely,

Darryl E. Brock

Darryl E. Brock
Senior Registration Specialist

cc: R. P. Schneider - 1920

attachments (2)

TELEPHONE: (202) 783-2460 FACSIMILE: (202) 783-2468

Please read Instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval expires 11-30-93

(A) EPA

United States Environmental Protection Agency
Office of Pesticide Programs (H7505C)
Washington, DC 20460

**Application for Pesticide:**

[ ] Registration
[x] Amendment
[ ] Other

OPP Identifier Number: 190622

## Section I

1. Company/Product Number: 524-330
2. EPA Product Manager: Robert J. Taylor
3. Proposed Classification: [x] None [ ] Restricted
4. Company/Product (Name): Roundup® L&G READY-TO-USE Grass & Weed Killer
PM#: 25
5. Name and Address of Applicant *(Include ZIP Code)*
Monsanto Company
700 14th Street, N.W.
Suite 1100
Washington, D.C. 20005
[ ] *Check if this is a new address*
6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:
EPA Reg. No._____
Product Name_____

## Section II

[x] Amendment - Explain below
[ ] Resubmission in response to Agency letter dated_____
[ ] Notification - Explain below.
[ ] Final printed labels in response to Agency letter dated_____
[ ] "Me Too" Application.
[ ] Other - explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.) MODIFICATIONS TO CLARIFY AND STREAMLINE LABEL FOR USERS: 1) DIRECTIONS FOR USE: Rewrite to clarify (per 8/11/93 approval of 524-451 RTU registration). Add sentence on shielding desirable plants. Relocate "stay off sprayed areas" advisory to "How-To-Use" to prevent injury. 2) Storage and Disposal: Relocate and revise to promote stewardship. 3) Front panel bullets: Add coverage and lawn renovation statements.

## Section III

1. **Material This Product Will Be Packaged In:**

| Child-Resistant Packaging | Unit Packaging | Water Soluble Packaging | 2. Type of Container |
|---|---|---|---|
| [ ] Yes* [ ] No | [ ] Yes [ ] No | [ ] Yes [ ] No | [ ] Metal [ ] Plastic [ ] Glass [ ] Paper [ ] Other (Specify)_____ |
| * *Certification must be submitted.* | If "Yes," Unit Package wgt. / No. per container | If "Yes," Package wgt. / No. per container | |

3. Location of Net Contents Information: [ ] Label [ ] Container
4. Size(s) of Retail Container
5. Location of Label Directions: [ ] On Label [ ] On Labeling accompanying product
6. Manner In Which Label Is Affixed To Product: [ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other (_____)

## Section IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

| Name | Title | Telephone No. (Include Area Code) |
|---|---|---|
| Dr. Russell P. Schneider | Agricultural Regulation Director | (202) 783-2460 |

**Certification**

*I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.*

2. Signature: Darryl E. Brock
3. Title: Senior Registration Specialist
4. Typed Name: Darryl E. Brock
5. Date: 20 August 1993
6. Date Application Received (Stamped)



EPA Form 8570-1 (Rev. 12-90) Previous editions are obsolete. White - EPA File Copy (original) Yellow - Applicant copy

# PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

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1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper or a mockup of the proposed label. If prepared as a mockup, it should be constructed in such a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.
**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

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**Block A** - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your **Company Number**, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the **Product Number**.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. **Subject of submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; general label revision of use directions." Attach a separate page if additional space is needed.

**SECTION III (Packaging and Container Information)** - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product label is attached to retail container.

**SECTION IV (Contact Point)** - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

1-5. Self-explanatory.
6. EPA Use Only.

United States Environmental Protection Agency
Washington, DC 20460

# EPA Certification with Respect to Citation of Data

Form Approved
OMB No. 2070-0060
Approval Expires 11-30-93

| Applicants Name and Address | EPA File Symbol/Registration Number |
|---|---|
| Monsanto Company<br>700 14th Street, N.W.<br>Suite 1100<br>Washington, D.C. 20005 | 524-330 |
| | Product Name: Roundup® L&G READY-TO-USE Grass & Weed Killer |
| | Date of Application: 20 August 1993 |

**NOTE:** If your product is a 100% repackaging of another EPA-registered product that you purchase, and is labeled for the same uses, you do not need to submit this form. You must submit the Formulator's Exemption Statement (EPA Form 8570-27).

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of apropval of this application. (Check the appropriate boxes, in items 2 and 3 below, that pertain to your application.)

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study,

   |x| I am the original submitter*; or

   | | I have obtained the written permission of the original data submitter to cite that study*

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

   a. |x| I am the original data submitter*; or

   | | I have obtained the written permission of the original data submitter to cite that study*; or

   b. | | I have notified in writing the companies that have submitted data I have cited to support this application and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA); and (b) Commence negotiations to determine which data are subject to the compensation requirement of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

   | | All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (cite-all method or cite-all option under Selective Method*). (Also, sign the General Offer Statement below.)

   | | Those companies that have submitted the studies which I have cited (Selective method*).

   * A Data Matrix identifying these studies is attached. (Note: a Data Matrix is not required under the cite-all method.)

| Signature | Name and Title | Date |
|---|---|---|
| Darryl E. Brock | Darryl E. Brock<br>Senior Registration Specialist | 20 August 1993 |

**General Offer to Pay:** I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required.

| Signature | Name and Title | Date |
|---|---|---|
| | | |

EPA Form 8570-29 (Rev-7-91)

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to 1.0 hours per response, including time for reviewing instructions, certifying the existence of the appropriate data, and completing and mailing this form. Send comments regarding the burden estimate or any other aspect of this certification process including suggestions for reducing the burden to:

Chief, Information Policy Branch, PM-223
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

and to

Office of Management and Budget
Paperwork Reduction Project (2070-0060)
Washington, DC 20503

AUG 11 1993

Ms. Sherri D. Schuette
Monsanto Company
700 14 th Street, NW Suite 1100
Washington, D.C. 20005

Dear Ms. Schuette:

Subject: JAN/SAN II Herbicide (Revise Environmental and Physical or Chemical Hazards Statement)
EPA Registration No. 524-330
Your Letter Dated June 22, 1993

The labeling referred to above submitted in connection with registration, under the Federal Insecticde, Fungicide, and Rodenticide Act, as amended is acceptable. A stamped copy of labeling is enclosed for your records.

Sincerely,

VKW

Robert J. Taylor
Product Manager 25
Fungicide-Herbicide Branch
Registration Division (H7505C)

# JAN/SAN™ II

ACCEPTED
AUG 11 1993
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

HERBICIDE BY **Monsanto**

Keep out of reach of children.

## CAUTION!

Read the entire label before using this product. Use only according to label instructions. Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened. REFORMULATION OR REPACKAGING IS PROHIBITED.

ACTIVE INGREDIENT:

| | |
|---|---|
| Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**CAUTION!** If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night (314) 694-4000.

### Environmental Hazards

**Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.**

### Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette, or other ignition source.

This product is protected by U.S. Patents No. 3,799,758, No. 4,405,531 and No. 4,840,650. Other patents pending. No license is granted under any non-U.S. patent(s).

™Trademark of Monsanto Company.

EPA Est. 524-LA-1
EPA Reg. No. 524-330

© 1990

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

**NET GAL**

GPL-002.01

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This product is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

**HOW TO USE:** Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

**WEEDS CONTROLLED:** Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

**IMPORTANT:** This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

## Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**STORAGE:** Store this product in its original container and in a secured storage area.
**DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed.

Do not reuse container. Triple rinse container. Then puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

| SUBMISSION REVIEW RECORD G | 1. REGISTRATION NUMBER: 524-330 | CYCLE | 2. DATE RECEIVED: MO 06 DAY 23 YR 93 |
|---|---|---|---|
| 3. 3CID PUBLICATION NECESSARY ☐ YES ☐ NO | 4. PETITION NO. | | 5. RECEIVED PM TEAM: MO DAY YR |
| 6. METHOD OF SUPPORT ☐ 2A ☐ 2B ☐ 2C | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN: MO DAY YR |
| 9. DATE PULLED: 8/3/93 / 10. DATE PUBLISHED | 11. ACTION TYPE: ~~Che~~ JAN/SAN II - Revise Envir & Chemical/Phys Hazard St 300 | CODE | 12. OUTGOING DATE: MO DAY YR |

| REV. SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO | DAY | YR |
|---|---|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | | | |
| | F | PRODUCT MANAGER | | VKW | NAC | 08 | 03 | 93 |
| | G | INTERAGENCY REFERRAL | | | | | | |
| | H | COST-BENEFIT REVIEW | | | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | | | |
| | S | | | | | | | |
| | T | | | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

*Please read Instructions on reverse before completing form.*

Form Approved. OMB No. 2070-0060. Approval expires 11-30-93

(A) EPA

United States Environmental Protection Agency
Office of Pesticide Programs (H7505C)
Washington, DC 20460

**Application for Pesticide:**

[ ] Registration
[X] Amendment
[ ] Other

OPP Identifier Number: 185072

## Section I

| | | |
|---|---|---|
| 1. Company/Product Number: 524-330 | 2. EPA Product Manager: Robert Taylor | 3. Proposed Classification: [X] None [ ] Restricted |
| 4. Company/Product (Name): JAN/SAN™ II Herbicide | PM#: 25 | |
| 5. Name and Address of Applicant *(Include ZIP Code)*: Monsanto Company, 700 14St., NW - Suite 1100, Washington, DC 20005 [ ] *Check if this is a new address* | 6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No.____ Product Name____ | |

## Section II

[X] Amendment - Explain below
[ ] Resubmission in response to Agency letter dated____.
[ ] Notification - Explain below.
[ ] Final printed labels in response to Agency letter dated____.
[ ] "Me Too" Application.
[ ] Other - explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

1. Change in Environmental Hazards Statement
2. Change in Physical or Chemical Hazard Statement

## Section III

**1. Material This Product Will Be Packaged In:**

| Child-Resistant Packaging | Unit Packaging | Water Soluble Packaging | 2. Type of Container |
|---|---|---|---|
| [ ] Yes* [X] No | [X] Yes [ ] No | [ ] Yes [X] No | [ ] Metal [ ] Plastic [ ] Glass [ ] Paper [ ] Other (Specify)____ |
| | If "Yes," Unit Package wgt. / No. per container | If "Yes," Package wgt. / No. per container | |

***Certification must be submitted.***

| 3. Location of Net Contents Information | 4. Size(s) of Retail Container | 5. Location of Label Directions |
|---|---|---|
| [ ] Label [ ] Container | | [ ] On Label [ ] On Labeling accompanying product |

6. Manner In Which Label Is Affixed To Product: [ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other (____)

## Section IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

| Name | Title | Telephone No. (Include Area Code) |
|---|---|---|
| Dr. Russell P. Schneider | Agricultural Regulation Director | 202-783-2460 |

**Certification**

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

| 2. Signature | 3. Title | 4. Typed Name | 5. Date |
|---|---|---|---|
| Sherri D. Schuette | State Registration Specialist | Sherri D. Schuette | 6/22/93 |



EPA Form 8570-1 (Rev. 12-90) **Previous editions are obsolete.** White - EPA File Copy (original) Yellow - Applicant copy

# PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

**PAPERWORK REDUCTION ACT NOTICE:** Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

**INSTRUCTIONS:** This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper or a mockup of the proposed label. If prepared as a mockup, it should be constructed in such a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.
**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

**SPECIFIC INSTRUCTIONS:** Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.
**Block A** - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your **Company Number**, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the **Product Number**.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. **Subject of submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; general label revision of use directions." Attach a separate page if additional space is needed.

**SECTION III (Packaging and Container Information)** - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product label is attached to retail container.

**SECTION IV (Contact Point)** - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

1-5. Self-explanatory.
6. EPA Use Only.

# Monsanto

Monsanto Company
Suite 1100
700 14th Street, N.W.
Washington, D.C. 20005

June 22, 1993

Office of Pesticide Programs
Document Processing Desk (AMEND)
U.S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 266A
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: JAN/SAN™ II Herbicide (EPA Reg. No. 524-330)
Amendment to the Environmental Hazard Statement
(Amendment addendum)

Dear Sir:

JAN/SAN II Herbicide was accepted by the Agency as an additional product name for Roundup L&G Ready to Use Grass & Weed Killer on October 31, 1988. In an effort to keep uniformity in our labels, we are submitting label amendments in the Environmental Hazard statement as well as the Physical or Chemical Hazard statement. Please note that this change has been made and implemented in our other glyphosate labels.

Monsanto requests that the Agency approve this label. Attached are 5 copies of the label and a signed EPA form 8570-1. If you have any questions regarding this amendment, please contact Dr. Russell Schneider at our Washington office or me at 314-694-3273. Thank you.

Sincerely,

Sherri D. Schuette

Sherri D. Schuette
State Registration Specialist

/ss

Attached

TELEPHONE: (202) 783-2460 FACSIMILE: (202) 783-2468

ATTACHED NOTIFICATION

TO: PM File Room

FROM: 25 REG. SUPPORT BR.

match-85

NO NEW LABEL ____

EPA REG. NO. 524-330

NEW LABEL ATTACHED ✓

COMPANY NAME _____

NEW CSF ATTACHED ____

**********

____ THIS IS AN ADDITIONAL BRAND NAME

____ THIS IS A CSF PERMITTED UNDER PR NOTICE 88-6

✓ THIS IS A LABEL CHANGE PERMITTED UNDER PR NOTICE 88-6

**********

✓ THIS WAS SENT TO SIG FOR CODING AND/OR MICROFICHING

____ FILE IN JACKET

*Please read Instructions on reverse before completing form.*

Form Approved. OMB No. 2070-0060. Approval expires 11-30-93

(A) EPA

United States Environmental Protection Agency
Office of Pesticide Programs (H7505C)
Washington, DC 20460

**Application for Pesticide:**

[ ] Registration
[ ] Amendment
[X] Other

OPP Identifier Number: 156933

## Section I

1. Company/Product Number: 524-330
2. EPA Product Manager: Robert J. Taylor
3. Proposed Classification: [X] None [ ] Restricted
4. Company/Product (Name): JAN/SAN™ II Herbicide
   PM#: 25
5. Name and Address of Applicant *(Include ZIP Code)*:
   Monsanto Company
   700 14th Street, N.W., Suite 1100
   Washington, D.C. 20005
   [ ] *Check if this is a new address*
6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:
   EPA Reg. No._____
   Product Name_____

## Section II

[ ] Amendment - Explain below
[ ] Resubmission in response to Agency letter dated_____.
[X] Notification - Explain below.
[ ] Final printed labels in response to Agency letter dated_____.
[ ] "Me Too" Application.
[ ] Other - explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

Notification: Update Environmental Hazard statement (wetlands).

## Section III

**1. Material This Product Will Be Packaged In:**

| Child-Resistant Packaging | Unit Packaging | Water Soluble Packaging | 2. Type of Container |
|---|---|---|---|
| [ ] Yes* | [ ] Yes | [ ] Yes | [ ] Metal |
| [ ] No | [ ] No | [ ] No | [ ] Plastic |
| | If "Yes," Unit Package wgt. / No. per container | If "Yes," Package wgt. / No. per container | [ ] Glass |
| | | | [ ] Paper |
| | | | [ ] Other (Specify)_____ |

** Certification must be submitted.*

3. Location of Net Contents Information: [ ] Label [ ] Container
4. Size(s) of Retail Container
5. Location of Label Directions: [ ] On Label [ ] On Labeling accompanying product
6. Manner In Which Label Is Affixed To Product: [ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other (_____)

## Section IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

| Name | Title | Telephone No. (Include Area Code) |
|---|---|---|
| Dr. Russell P. Schneider | Agricultural Regulation Director | (202) 783-2460 |

**Certification**

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received **(Stamped)**

2. Signature: [signature]
3. Title: Registration Manager
4. Typed Name: Lydia A. Suba
5. Date: 7/9/92



EPA Form 8570-1 (Rev. 12-90) **Previous editions are obsolete.** White - EPA File Copy (original) Yellow - Applicant copy

# PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

**PAPERWORK REDUCTION ACT NOTICE:** Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

**INSTRUCTIONS:** This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper or a mockup of the proposed label. If prepared as a mockup, it should be constructed in such a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.
**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

**SPECIFIC INSTRUCTIONS:** Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.
**Block A** - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your **Company Number**, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the **Product Number**.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a <u>specific EPA-registered product</u>. This section is <u>not to be</u> used for a new application for registration.

1. **Subject of submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; general label revision of use directions." Attach a separate page if additional space is needed.

**SECTION III (Packaging and Container Information)** - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product label is attached to retail container.

**SECTION IV (Contact Point)** - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

1-5. Self-explanatory.
6. EPA Use Only.

★U.S.GPO:1992-0-6[illegible]57/41065

# JAN/SAN™ II

HERBICIDE BY **Monsanto**

Keep out of reach of children.

## CAUTION!

Read the entire label before using this product. Use only according to label instructions. Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened. REFORMULATION OR REPACKAGING IS PROHIBITED.

ACTIVE INGREDIENT:

| | |
|---|---|
| Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**CAUTION!** If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night (314) 694-4000.

### Environmental Hazards

**Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.**

### Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette, or other ignition source.

This product is protected by U.S. Patents No. 3,799,758, No. 4,405,531 and No. 4,840,650. Other patents pending. No license is granted under any non-U.S. patent(s).

™Trademark of Monsanto Company.

EPA Est. 524-LA-1
EPA Reg. No. 524-330

© 1990

NET: 1 GAL

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

GPL-002.01

DATE: JUL 17 1992
NOTIFICATION
LABEL NOT REVIEWED
PER PR NOTICE 92-6

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This product is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

**HOW TO USE:** Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

**WEEDS CONTROLLED:** Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

**IMPORTANT:** This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

## Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**STORAGE:** Store this product in its original container and in a secured storage area.

**DISPOSAL:** *Wastes resulting from the use of this product that cannot be used or chemically reprocessed should* be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed.

Do not reuse container. Triple rinse container. Then puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond *the control of this Company, including, but not limited to, incompatibility with products other than those set forth* in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

*Buyer and all users are deemed to have accepted the terms of this* LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

# Monsanto

Monsanto Company
Suite 1100
700 14th Street, N.W.
Washington, D.C. 20005

July 9, 1992

Office of Pesticide Programs
Document Processing Desk
U.S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 266A
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: JAN/SAN™ II Herbicide
EPA Reg. No. 524-330
Notification to update the Environmental Hazard Statement

Dear Sir:

JAN/SAN II Herbicide was accepted by the Agency as an additional product name for Roundup L&G Ready to Use Grass & Weed Killer on October 31, 1988. The final printed label was submitted on March 26, 1991. The accession number assigned by the Agency was 248438 for the studies supporting the original submission which was then called Shackle.

At this time, Monsanto is notifying the Agency that in anticipation of the new wetlands statement which the EPA would require in the near future, the first sentence under Environmental Hazards has been replaced with the text shown below.

> **Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark.**

Attached are five (5) copies of the draft label for your files with the changed text highlighted in yellow in one of the copies. If you have any questions regarding this notification, please contact Dr. Russell Schneider at our Washington office or me at 314-694-2124.

Sincerely,

Lydia A. Suba
Registration Manager

TELEPHONE: (202) 783-2460 FACSIMILE: (202) 783-2468

JUL 13 1992

Mr. Darryl E. Brock
Monsanto Company
700 14th Street NW., Suite 1100
Washington, DC 20005

Dear Mr. Brock:

Subject: Roundup L&G Ready to Use Grass and Weed Killer
(Modify Label to Allow Refill with Another
Glyphosate Product)
EPA Registration No. 524-330
Your Application Dated June 12, 1992

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. Please submit five (5) copies of your final label before you release the product for shipment. A stamped copy of labeling is enclosed for your records.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

56091:I:WP50:Taylor:WP25-7:KEVRIC:07/08/92:08/08/92

CONCURRENCES

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL | H7505C | | | | | | | |
| SURNAME | VKWalker | | | | | | | |
| DATE | 7/13/92 | | | | | | | |

EPA Form 1320-1 (12-70)

OFFICIAL FILE COPY

# Monsanto

Monsanto Company
Suite 1100
700 14th Street, N.W.
Washington, D.C. 20005

June 12, 1992

Document Processing Desk (AMEND)
Office of Pesticide Programs
U.S. Environmental Protection Agency
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

**Subject:** **ROUNDUP® L&G READY-TO-USE GRASS & WEED KILLER (EPA Reg. No. 524-330)**

Submission of Draft Container Labels Amended to Provide for Product Refill

Dear Mr. Taylor:

**ROUNDUP® L&G READY-TO-USE GRASS & WEED KILLER** (EPA Reg. No. 524-330), a ready-to-use L&G liquid formulation containing 0.96% isopropylamine salt of glyphosate, was registered by the Agency on March 23, 1987 as an additional brandname to **Shackle™ Herbicide**. The registration was amended September 11, 1987 and February 26, 1990 to meet glyphosate registration standard terminology on active ingredients and to modify the environmental hazards wash waters disposal statement per Agency requirements. Monsanto now wishes to amend the registration to provide a refill alternative for the consumer to promote recycling of containers in order to reduce the flow of solid material to landfills.

**Proposed Label Amendments**

1. Front panel, BULLET POINTS - an additional point has been added stating *This 24 fl oz bottle can be REFILLED with one tablet of Roundup® Quik Stik Grass & Weed Killer! See Storage and Disposal section for more information.*

2. Back panel, STORAGE AND DISPOSAL - the statement *Do not reuse container* is being replaced with a reuse section directing the user not to reuse the container except as a refill for Roundup Quik Stik Grass & Weed Killer.

3. Back panel, ENVIRONMENTAL HAZARDS - unrelated to the refill concept, this section is modified to reflect current Agency hazards language.

TELEPHONE: (202) 783-2460 FACSIMILE: (202) 783-2468

This refill program is specifically designed to encourage recycling of containers and to promote reduction of solid waste at landfills. By reusing the Roundup RTU spray bottle, the user will not need to purchase and dispose several spray bottles throughout the season. Monsanto anticipates this refill program will replace up to two (2) million spray bottles annually.

Specifics of this refill program and a detailed rationale for its value are contained in the amendment proposal of this date concurrently submitted for **ROUNDUP QUIK STIK GRASS & WEED KILLER** (EPA Reg. No. 524-452). Please evaluate this Roundup RTU submission in concert with the Roundup Quik Stik proposal.

This is Monsanto's initial attempt to develop a refill program, using a Roundup tablet product, in an effort to meet consumer stewardship interests and Agency policies. We believe these goals to be worthwhile and ask the Agency to carefully consider our program. Should the Agency find some aspects of this proposal unacceptable, we ask that they work with us to develop a more satisfactory proposal. We are interested in advancing this project quickly and would be pleased to meet with the Agency for that purpose, as necessary.

Monsanto is submitting five (5) copies of the 24 fl oz container label for Agency review and approval. In these draft labels, all deletions are lined through and additions of new text are indicated to aid the reviewer. The label drafts are accompanied by a completed *Application for Pesticide Amendment* and a *Certification with Respect to Citation of Data*.

If there are any questions regarding this request, please contact Dr. Russell P. Schneider at (202) 783-2460.

Sincerely,

Darryl E. Brock

Darryl E. Brock
Registration Specialist

attachments (7)

cc: R. P. Schneider - 1920
K. F. Cannon - B2SH

Requires No Mixing

Roundup®

READY-TO-USE

by Monsanto

# Grass & Weed Killer

- SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION
- KILLS LABELED WEEDS AND GRASS, ROOTS AND ALL
- DOES NOT HAVE SOIL ACTIVITY
- SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES, WALKS AND SPOT TREATMENT IN LAWNS

Read the entire label before using this product. Use only according to label instructions.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

Keep out of reach of children.

CAUTION!

See back panel for Precautionary Statements and Directions for Use.

EPA Reg. No. 524-330

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

ACTIVE INGREDIENT:
*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt ..... 0.96%
INERT INGREDIENTS ... 99.04%
100.00%

This product is protected by U.S. Patents ~~No. 3,799,758~~; No. 4,405,531 ~~and No. 4,940,650~~. Other patents pending. No license granted under any non-U.S. patent(s).

* Trademark of Monsanto Company

©MONSANTO COMPANY ~~1988~~ 1992

NET 24 fl. oz.
(1 pt. 8 oz.)

(Delete periods in abbreviations)

~~807-00-000-26-1~~

A-000.26-1

ACCEPTED

JUL 13 1992

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

This 24 fl oz bottle can be REFILLED with one tablet of Roundup* Quik Stik Grass & Weed Killer! See Storage and Disposal section for more information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Keep out of reach of children.

**CAUTION!** If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

ENVIRONMENTAL HAZARDS

~~Do not apply directly to water or wetland (swamps, bogs, marshes or pot, holes).~~ Do not contaminate water when disposing of equipment washwaters.

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup® L&G Ready-To-Use herbicide is a nonselective labeled grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of labeled tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

WEEDS CONTROLLED Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

WARNING This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

For more product information, Call toll-free 1-800-225-2883.

or questions,

STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

~~Do not reuse container. Rinse thoroughly before discarding in trash.~~

DO NOT REUSE SPRAY BOTTLE EXCEPT FOR REFILL IN ACCORDANCE WITH THE ROUNDUP® QUIK STIK GRASS & WEED KILLER LABEL. If NOT refilled, rinse thoroughly before discarding in trash.

EPA Est. 56100-LA-001

~~097-09-000.26-2~~

0 70183 50030 7

A-000.26-2

(Move below "violation" statement)

| SUBMISSION REVIEW RECORD G | 1. REGISTRATION NUMBER: 524-330 | CYCLE | 2. DATE RECEIVED: MO 06 DAY 17 YR 92 |
|---|---|---|---|
| 3. 3CID PUBLICATION NECESSARY ☐ YES ☐ NO | 4. PETITION NO. | | 5. RECEIVED PM TEAM: MO DAY YR |
| 6. METHOD OF SUPPORT ☐ 2A ☐ 2B ☐ 2C | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN: MO DAY YR |
| 9. DATE PULLED: 6/29/92 / 10. DATE PUBLISHED | 11. ACTION TYPE: Reinstrup L+G Ready-to Use - allow for refill from another glyphosate prod. 300 | CODE | 12. OUTGOING DATE: MO DAY YR |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO | DAY | YR |
|---|---|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | | | |
| | F | PRODUCT MANAGER | | VKW | NAC | 06 | 29 | 92 |
| | G | INTERAGENCY REFERRAL | | | | | | |
| | H | COST-BENEFIT REVIEW | | | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | | | |
| | S | | | | | | | |
| | T | | | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

*Please read Instructions on reverse before completing form.*

Form Approved. OMB No. 2070-0060. Approval expires 11-30-93

(A) EPA

United States Environmental Protection Agency
Office of Pesticide Programs (H7505C)
Washington, DC 20460

**Application for Pesticide:**

[ ] Registration
[X] Amendment
[ ] Other

OPP Identifier Number: 156913

## Section I

1. Company/Product Number: 524-330
2. EPA Product Manager: Robert J. Taylor
3. Proposed Classification: [X] None [ ] Restricted
4. Company/Product (Name): Roundup L&G Ready-To-Use Grass & Weed Killer
   PM#: 25
5. Name and Address of Applicant *(Include ZIP Code)*
   Monsanto Company
   700 14th Street, N.W., Suite 1100
   Washington, D.C. 20005
   [ ] *Check if this is a new address*
6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:
   EPA Reg. No. _____
   Product Name _____

## Section II

[X] Amendment - Explain below
[ ] Resubmission in response to Agency letter dated _____.
[ ] Notification - Explain below.
[ ] Final printed labels in response to Agency letter dated _____.
[ ] "Me Too" Application.
[ ] Other - explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

1. Modify storage and disposal section and "Bullet Points" to inform user that this product may be refilled with Roundup® Quik Stik Grass & Weed Killer.
2. Change to new Environmental Hazards statement.
3. Delete now inapplicable patent numbers.

## Section III

1. **Material This Product Will Be Packaged In:**

| Child-Resistant Packaging | Unit Packaging | Water Soluble Packaging | 2. Type of Container |
|---|---|---|---|
| [ ] Yes* | [ ] Yes | [ ] Yes | [ ] Metal |
| [ ] No | [ ] No | [ ] No | [ ] Plastic |
| | If "Yes," Unit Package wgt. / No. per container | If "Yes," Package wgt. / No. per container | [ ] Glass |
| | | | [ ] Paper |
| | | | [ ] Other (Specify) _____ |

** Certification must be submitted.*

3. Location of Net Contents Information: [ ] Label [ ] Container
4. Size(s) of Retail Container
5. Location of Label Directions: [ ] On Label [ ] On Labeling accompanying product
6. Manner In Which Label Is Affixed To Product: [ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other ( _____ )

## Section IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

| Name | Title | Telephone No. (Include Area Code) |
|---|---|---|
| Russell P. Schneider, Ph.D. | Agricultural Regulation Director | (202) 783-2400 |

**Certification**

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature: Darryl E. Brock
3. Title: Registration Specialist
4. Typed Name: Darryl E. Brock
5. Date: June 12, 1992



EPA Form 8570-1 (Rev. 12-90) **Previous editions are obsolete.** White - EPA File Copy (original) Yellow - Applicant copy

# PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

**PAPERWORK REDUCTION ACT NOTICE:** Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

**INSTRUCTIONS:** This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper or a mockup of the proposed label. If prepared as a mockup, it should be constructed in such a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.
**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

**SPECIFIC INSTRUCTIONS:** Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.
**Block A** - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your **Company Number**, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the **Product Number**.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. **Subject of submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; general label revision of use directions." Attach a separate page if additional space is needed.

**SECTION III (Packaging and Container Information)** - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product label is attached to retail container.

**SECTION IV (Contact Point)** - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

1-5. Self-explanatory.
6. EPA Use Only.

★U.S.GPO:1992-0-61[illegible]7/41065

United States Environmental Protection Agency
Washington, DC 20460

EPA

# Certification with Respect to Citation of Data

Form Approved
OMB No. 2070-0060
Approval expires 9-30-90

| Applicant's Name and Address | EPA File Symbol/Registration Number |
|---|---|
| Monsanto Company<br>700 14th Street, N.W.<br>Suite 1100<br>Washington, D.C. 20005 | 524-330 |
| | Product Name: Roundup L&G Ready-To-Use Grass & Weed Killer |
| | Date of Application: June 12, 1992 |

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I am the original data submitter, or have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

----> I am the original data submitter; or I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support this application and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirement of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: *(Check one)*

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (cite-all method or cite-all option under Selective Method). *(Also sign the General Offer to Pay Statement below.)*

☐ Those companies who have submittted the studies which I have cited (Selective method).

| Signature | Name and Title | Date |
|---|---|---|
| Darryl E. Brock | Darryl E. Brock<br>Registration Specialist | June 12, 1992 |

**General Offer to Pay:** I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

| Signature | Name and Title | Date |
|---|---|---|
| Darryl E. Brock | Darryl E. Brock<br>Registration Specialist | June 12, 1992 |

EPA Form 8570-29 (7-86)

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to 1.0 hours per response, including time for reviewing instructions, certifying the existence of the appropriate data, and completing and mailing this form. Send comments regarding the burden estimate or any other aspect of this certification process including suggestions for reducing the burden to:

Chief, Information Policy Branch, PM-223
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

and to

Office of Management and Budget
Paperwork Reduction Project (2070-0060)
Washington, DC 20503

# JAN/SAN™ II

HERBICIDE BY **Monsanto**

NOT REVIEWED
In Accordance with PR Notice 82-2.
Pesticide Draft Labeling Dated 5/8/90

Keep out of reach of children.

## CAUTION!

Read the entire label before using this product. Use only according to label instructions. Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened. REFORMULATION OR REPACKAGING IS PROHIBITED.

ACTIVE INGREDIENT:

| | |
|---|---|
| Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**CAUTION!** If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night (314) 694-4000.

### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water when disposing of equipment washwaters.

### Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette, or other ignition source.

This product is protected by U.S. Patents No. 3,799,758, No. 4,405,531 and No. 4,840,650. Other patents pending. No license is granted under any non-U.S. patent(s).

™Trademark of Monsanto Company.

55

EPA Est. 524-LA-1
EPA Reg. No. 524-330

© 1990

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

**NET GAL**

GPL-002.01

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This product is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

**HOW TO USE:** Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

**WEEDS CONTROLLED:** Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

**IMPORTANT:** This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

## Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**STORAGE:** Store this product in its original container and in a secured storage area.
**DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed.

Do not reuse container. Triple rinse container. Then puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 6-30-90.

United States Environmental Protection Agency
Office of Pesticide Programs (TS-767)
Washington, DC 20460

EPA

# Application for Pesticide: [ ] Registration [X] Amendment

OPP Identifier Number: 140860

## Section I

| 1. Company/Product Number | 2. Date | 3. Product Manager | 4. Proposed Classification |
|---|---|---|---|
| Monsanto / 524-330 | March 26, 1991 | Robert J. Taylor (25) | [X] General [ ] Restricted |

5. Name and Address of Applicant *(Include ZIP Code)*

Monsanto Company
700 14th Street, N.W., #1100
Washington, D.C. 20005

[ ] Check if this is a new address

6. Product Name

JAN/SAN II Herbicide

## Section II - Amendment Information

1. Subject

[ ] Resubmission in response to Agency letter [X] Final printed label in response to Agency letter [ ] Other *(explain below)*

Date of Letter: 5/8/90

## Section III

1. Material This Product Will Be Packaged In

| Child-Resistant Packaging | Unit Packaging | Water-Soluble Packaging |
|---|---|---|
| [ ] Yes [ ] No | [ ] Yes [ ] No | [ ] Yes [ ] No |
| | If "Yes," Unit package wgt / No. per container | If "Yes," Package weight / No. per container |

2. Type of Container: [ ] Metal [ ] Plastic [ ] Glass [ ] Paper [ ] Other *(Specify)*

3. Location of Net Contents Information: [ ] Label [ ] Container

4. Size(s) of Retail Container

5. Location of Label Directions: [ ] On Label [ ] On material accompanying product

6. Manner in Which Label Is Affixed To Product: [ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other *(Specify)*

## Section IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application).*

Name: Dr. Kevin F. Cannon

Title: Manager, Agricultural Affairs

Telephone No. *(Include Area Code)*: (202) 783-2460

6. Date Application Received *(Stamped)*

**Certification**

I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature: Roy G. Danhaus

3. Title: Registration Manager

4. Typed Name: Roy G. Danhaus

5. Date Signed: 26 March 91

EPA Form 8570-1 (Rev. 4-88) Previous editions are obsolete.

# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to average of 0.85 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## Instructions

### General

This form is to be used for all applications for new and amended registrations for pesticide products.

In order to process an application for new registration submitted on this form, the following material must accompany the application:

1. Offer to Pay Statement (EPA Form 8570-27, -28, -29). (If not exempted by 40 CFR 162.9-1(b).)
2. Confidential Statement of Formula (EPA Form 8570-4).
3. Five copies of draft labeling.
4. Three copies of any data submitted.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8 1/2 x 11 inch paper or as a mockup of the proposed label. If prepared as a mockup it should be constructed in such a way as to facilitate storage in an 8 1/2 x 11 inch file. Mockup labels significantly smaller than 8 1/2 x 11 inches should be mounted on 8 1/2 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A , for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, Section I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

**Amendment Information**

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

**Packaging and Container Information**

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product labeling is attached to retail container.

**Contact Point**

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

1-5. Self-explanatory.

6. EPA Use Only.

# Monsanto

Monsanto Company
Suite 1100
700 14th Street, N.W.
Washington, D.C. 20005

March 26, 1991

Document Processing Desk
Office of Pesticide Programs - H7504C
U.S. Environmental Protection Agency
Crystal Mall #2, Room 226A
1921 Jefferson Davis Highway
Arlington, Virginia 22202

Attention: Robert J. Taylor (25)

Subject: GLYPHOSATE
JAN/SAN II Herbicide
524-330
Final Printed Labels

Dear Sir,

On May 8, 1990, the Agency approved supplemental labeling for JAN/SAN II Herbicide reflecting changes in the patent statement, active ingredient statement, and addition of the Physical Chemical Hazards section regarding hydrogen formation. As required by that approval, we are submitting five (5) copies of the container label version GPL-002.01 for your files.

If you have any questions, please contact me or Dr. Kevin F. Cannon.

Sincerely,

Roy G. Danhaus

Roy G. Danhaus
Registration Manager

RGD:kes

cc: K. F. Cannon
R. P. Schneider

TELEPHONE: (202) 783-2460 FACSIMILE: (202) 783-2468

MAY - 8 1990

Mr. Roy G. Danhaus
Monsanto Company
700 14th Street, N.W. Suite #1100
Washington, DC 20005

Dear Mr. Danhaus:

Subject: Jan/San II Herbicide (Revise Active Ingredient and Patent Statements)
EPA Registration No. 524-330
Your application dated April 11, 1990

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (H7505C)

58900:I:A-4:Walters:T-13:KENCO:5/4/90:6/4/90:EK:VO:CL

CONCURRENCES

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL | H7505C | | | | | | | |
| SURNAME | VKWalters | | | | | | | |
| DATE | 5/8/90 | | | | | | | |

EPA Form 1320-1 (12-70)

OFFICIAL FILE COPY

# JAN/SAN™ II

ACCEPTED

MAY - 8 1990

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

HERBICIDE BY **Monsanto**

Keep out of reach of children.

## CAUTION!

Read the entire label before using this product. Use only according to label instructions. Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened. REFORMULATION OR REPACKAGING IS PROHIBITED.

ACTIVE INGREDIENT:

| | |
|---|---|
| Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**CAUTION!** If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night (314) 694-4000.

### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water when disposing of equipment washwaters.

### Physical or Chemical Hazards

Mix, store or apply this product ONLY in stainless steel, aluminum, fiberglass plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. Use of this product in such containers could result in the formation of an explosive hydrogen gas mixtures which could flash or explode if ignited by open flames or any other ignition source.

This product is protected by U.S. Patents No. 3,799,758, No. 4,405,531 and No. 4,840,640. Other patents pending. No license is granted under any non-U.S. patent(s).

™Trademark of Monsanto Company.

EPA Est. 524-CA-1
EPA Reg. No. 524-330

© 1990

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

**NET GAL**

GPL-002.01

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This product is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

**HOW TO USE:** Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

**WEEDS CONTROLLED:** Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

**IMPORTANT:** This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

## Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**STORAGE:** Store this product in its original container and in a secured storage area.

**DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed.

Do not reuse container. Triple rinse container. Then puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

| SUBMISSION REVIEW RECORD G | 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED |
|---|---|---|---|
| | 524 - 330 | | MO 04 DAY 16 YR 90 |
| 3. 3CID PUBLICATION NECESSARY ☐ YES ☐ NO | 4. PETITION NO. | | 5. RECEIVED PM TEAM MO 04 DAY 23 YR 90 |
| 6. METHOD OF SUPPORT ☐ 2A ☐ 2B ☐ 2C | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN MO DAY YR |
| 9. DATE PULLED 5/1/90 / 10. DATE PUBLISHED | 11. ACTION TYPE Renewal/Label (AI statement etc) 300 | CODE | 12. OUTGOING DATE MO DAY YR |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO | DAY | YR |
|---|---|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | | | |
| | F | PRODUCT MANAGER | | VKW | NAC | 05 | 01 | 90 |
| | G | INTERAGENCY REFERRAL | | | | | | |
| | H | COST-BENEFIT REVIEW | | | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | | | |
| | S | | | | | | | |
| | T | | | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

Please read instructions and notice on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 6-30-90.

United States Environmental Protection Agency
Office of Pesticide Programs (TS-767)
Washington, DC 20460

EPA

# Application for Pesticide: [ ] Registration [X] Amendment

OPP Identifier Number 127902

## Section I

| 1. Company/Product Number | 2. Date | 3. Product Manager | 4. Proposed Classification |
|---|---|---|---|
| 524-330 | 11 April 1990 | R. J. Taylor (25) | [X] General [ ] Restricted |

5. Name and Address of Applicant *(Include ZIP Code)*

[ ] Check if this is a new address

6. Product Name

JAN/SAN II Herbicide

## Section II - Amendment Information

1. Subject

[ ] Resubmission in response to Agency letter [ ] Final printed label in response to Agency letter [X] Other *(explain below)*

Date of Letter 11 April 1990

1. Change active ingredient expression
2. Insert "Physical or Chemical Hazards Section."
3. Changes in Patent Statements

## Section III

1. Material This Product Will Be Packaged In

| Child-Resistant Packaging | Unit Packaging | Water-Soluble Packaging |
|---|---|---|
| [ ] Yes [ ] No | [ ] Yes [ ] No | [ ] Yes [ ] No |
| | If "Yes," Unit package wgt / No. per container | If "Yes," Package weight / No. per container |

2. Type of Container: [ ] Metal [ ] Plastic [ ] Glass [ ] Paper [ ] Other *(Specify)*

3. Location of Net Contents Information: [ ] Label [ ] Container

4. Size(s) of Retail Container

5. Location of Label Directions: [ ] On Label [ ] On material accompanying product

6. Manner in Which Label Is Affixed To Product: [ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other *(Specify)*

## Section IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application).*

| Name | Title | Telephone No. *(Include Area Code)* | 6. Date Application Received *(Stamped)* |
|---|---|---|---|
| Dr. Kevin F. Cannon | Manager, Agricultural Affairs | (202) 783-2460 | |

**Certification**

I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

| 2. Signature | 3. Title | 6. Date Application Received *(Stamped)* |
|---|---|---|
| Roy G. Danhaus | Registration Manager | |
| 4. Typed Name: Roy G. Danhaus | 5. Date Signed: 11 April 1990 | |

EPA Form 8570-1 (Rev. 9-88) Previous editions are obsolete.

# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to average of 0.85 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## Instructions

### General

This form is to be used for all applications for new and amended registrations for pesticide products.

In order to process an application for new registration submitted on this form, the following material must accompany the application:

1. Offer to Pay Statement (EPA Form 8570-22, -23, or -24). (If not exempted by 40 CFR 162.9-1(b).)
2. Confidential Statement of Formula (EPA Form 8570-4).
3. Five copies of draft labeling.
4. Three copies of any data submitted.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8 1/2 x 11 inch paper or as a mockup of the proposed label. If prepared as a mockup it should be constructed in such a way as to facilitate storage in an 8 1/2 x 11 inch file. Mockup labels significantly smaller than 8 1/2 x 11 inches should be mounted on 8 1/2 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A , for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, Section I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

#### Amendment Information

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

#### Packaging and Container Information

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product labeling is attached to retail container.

#### Contact Point

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

1-5. Self-explanatory.

6. EPA Use Only.

CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-330 Date of Application 11 April 1990

Name of Product JAN/SAN II Herbicide

Applicant's Name and Address Monsanto Company
Suite 1100
700 14th Street N. W.
Washington, D. C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is <u>not</u> an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; <u>or</u>

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

[ ] All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). <u>(Also sign the General Offer to Pay Statement below)</u>.

[X] Monsanto Company has submitted the studies which I have cited (Selective Method).

Date 11 April 1990 Signature Roy S. Darling

Title Registration Manager

<u>General Offer to Pay</u>: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date 11 April 1990 Signature Roy S. Darling

Title Registration Manager

# Monsanto

Monsanto Company
Suite 1100
700 14th Street, N.W.
Washington, D.C. 20005

11 April 1990

Office of Pesticide Programs
Document Processing Desk (AMEND)
U.S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 266A
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: JAN/SAN™ II Herbicide
EPA Reg. No. 524-330
Submission of Amended Draft Labeling

Dear Sir:

The JAN/SAN II Herbicide label was submitted to the Agency on 8 August 1988 as a notification of our intent to segment the ROUNDUP L&G READY-TO-USE GRASS & WEED KILLER label to create a product targeted for use in the institutional maintenance industry.

We are now submitting a draft label which has only three changes:

1. The active ingredient statement has been changed to the expression prescribed by the Glyphosate Registration Standard, i.e., "Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt.....0.96 %"

2. The Physical or Chemical Hazards section has been added which warns the user against mixing or storing the product or solutions of the product in galvanized steel or unlined steel containers because of the possibility of generation of hydrogen gas. This statement has already been incorporated and approved on the JAN/SAN Herbicide label and on other glyphosate products.

3. The patent statement has been updated as requested by the Monsanto Legal Department.

We are submitting five (5) copies of the draft label for your review and for stamping. Also enclosed is a completed Application for Pesticide Amendment.

TELEPHONE: (202) 783-2460 FACSIMILE: (202) 783-2468

Please call Dr. Kevin Cannon at (202) 783-2460 if there are any questions regarding this submission.

Sincerely,

Roy G. Danhaus

Roy G. Danhaus
Registration Manager

cc. J. Higgins M2C
D. M. Fee-White C2SD
N. L. Yates- Parker

R. Daylor
2/1/90

ATTACHED NOTIFICATION

TO: PM_____

FROM: REG. SUPPORT BR.

NO NEW LABEL _____

EPA REG. NO. 524-330

NEW LABEL ATTACHED _____

COMPANY NAME_____

NEW CSF ATTACHED _____

**********

_____ THIS IS AN ADDITIONAL BRAND NAME

_____ THIS IS A CSF PERMITTED UNDER PR NOTICE 88-6

✓ THIS IS A LABEL CHANGE PERMITTED UNDER PR NOTICE 88-6

**********

_____ THIS WAS SENT TO SIG FOR CODING AND/OR MICROFICHING

✓ FILE IN JACKET

Owen

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

December 11, 1989

Office of Pesticide Programs
U.S. Environmental Protection Agency
Document Processing Desk (DIST)
1921 Jefferson Davis Highway
Crystal Mall #2, Room 266A
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Notification of Supplemental Registration of Distributor
JAN/SAN II Herbicide EPA Reg. No. 524-330

Dear Sir:

Monsanto has agreed to have State Chemical Manufacturing Company of Cleveland, Ohio distribute JAN/SAN II Herbicide (EPA Reg. No. 524-330), a product containing 0.96% isopropylamine salt of glyphosate, under the name, STATE QUICKDRAW READY-TO-USE HERBICIDE.

Enclosed is the completed form, Notice of Supplemental Registration of Distributor (8570-5) for the Agency records.

If there are any questions, please contact Dr. Kevin Cannon of our Washington, D.C. office.

Sincerely,

Roy G. Danhaus
Registration Manager

cc. K. F. Cannon
M. N. Cline M2C
N. L. Yates-Parker
S. D. Schuette
D. M. Fee C2SD

Form Approved. OMB No. 2070-0044.
Approval expires 3-31-89.

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDE PROGRAMS (TS - 767)
WASHINGTON, DC 20460

# EPA NOTICE OF SUPPLEMENTAL REGISTRATION OF DISTRIBUTOR

*(Please read instructions before completing)*

| EPA REGISTRATION NO. OF PRODUCT | DISTRIBUTOR COMPANY NUMBER |
|---|---|
| 524-330 | 1685 |

NAME AND ADDRESS OF BASIC REGISTRANT *(print or type; include ZIP code)*

Monsanto Agricultural Company
800 N. Lindbergh Blvd.
St. Louis, Missouri 63167

NAME OF REGISTERED PRODUCT *(basic product name accepted by EPA)*

JAN/SAN II Herbicide

DISTRIBUTOR PRODUCT NAME

State Quickdraw Ready-to-Use Herbicide

NAME AND ADDRESS OF DISTRIBUTOR *(print or type; include ZIP code)*

State Chemical Manufacturing Company
3100 Hamilton Ave
Cleveland, OH 44114

**DISTRIBUTOR**

We intend to market under the Distributor Product Name and Number specified above, subject to the conditions specified on this form.

| SIGNATURE AND TITLE OF DISTRIBUTOR | DATE |
|---|---|
| Tammy Westerman Technical Director | 10/17/89 |

**REGISTRANT**

It is requested that the Registration Record of this jacket include the Distributor Product specified above, subject to the conditions specified on this form.

| SIGNATURE AND TITLE OF REGISTRANT | DATE |
|---|---|
| Roy J. Dahlman Registration Manager | 11 Dec 1989 |

**INSTRUCTIONS**

After a registrant has obtained final registration for the basic product, the registrant may then supplementally register and distribute his/her product. One form must be submitted for each distributor brand and must be signed by the distributor involved. The form must state the basic registration number and the distributor company number.

If a registrant has a potential distributor who does not have a company number assigned, she/he should have the distributor apply, on letterhead stationary, to the Registration Division to have a number assigned prior to submitting a Distributor Notification to the Agency.

Notification forms must be submitted by the basic registrant. They must have the concurrence and signature of both the registrant and the distributor.

When submitting several forms for the same basic product, submitting them together will facilitate processing.

**NOTE: DO NOT** submit distributor product labels.

**CONDITIONS**

1. The distributor product must have the same composition as the basic registered product.
2. The distributor brand product must be manufactured and packaged by the same person who manufactures and packages the registered basic product.
3. The labeling for the distributor product must bear the same claims as the basic product, provided, however, that specific claims may be deleted if by doing so no other changes are necessary.
4. The product must remain in the manufacturer's unbroken container.
5. The label must bear the EPA registration number of the basic registered product, followed by a hyphen and the distributor's company number.
6. Distributor products must bear the name and address of the distributor qualified by such terms as "packed for . . .," "distributed by . . .", or "sold by . . ." to show that the name is not that of the manufacturer.
7. All conditions of the basic registration apply equally to distributor brand products. It is the responsibility of the basic registrant to see that all distributor labeling is kept in compliance with requirements placed on the basic product.

RECEIVED BY EPA REGISTRATION DIVISION ON THIS DATE STAMPED BELOW

EPA Form 8570-5 (Rev. 4-83) Previous editions are obsolete.

**APPLICANT** — Send only original to EPA — Retain copies

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

FEB 26 1990

Mr. Roy G. Danhaus
Monsanto Company
1101 17th Street, N.W.
Washington, DC 20036

Dear Mr. Danhaus:

Subject: Roundup L&G Ready-to-Use Grass & Weed Killer (Change in Active Ingredient Statement and Other Editorial Changes)
EPA Registration No. 524-330
Your application dated November 20, 1989

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable. Please submit five (5) copies of your final printed labeling incorporating these changes before you release the product for shipment. A stamped copy of labeling is enclosed for your records.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (H7505C)

58883:I:Walters:T-3:KENCO:2/16/90:3/21/90:dg:sw:dd:dg

CONCURRENCES

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL | H7505C | | | | | | | |
| SURNAME | VKWalters | | | | | | | |
| DATE | 2/26/90 | | | | | | | |

EPA Form 1320-1 (12-70)

OFFICIAL FILE COPY

| SUBMISSION REVIEW RECORD G | 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED |
|---|---|---|---|
| | 324 - 330 | | MO 11 DAY 22 YR 89 |
| 3. 3CID PUBLICATION NECESSARY ☐ YES ☐ NO | 4. PETITION NO. | | 5. RECEIVED PM TEAM MO DAY YR |
| 6. METHOD OF SUPPORT ☐ 2A ☐ 2B ☐ 2C | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN MO DAY YR |
| 9. DATE PULLED 2/13/90 / 10. DATE PUBLISHED | 11. ACTION TYPE Reversion of AT & other Editorial 300 | CODE | 12. OUTGOING DATE MO DAY YR |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO | DAY | YR |
|---|---|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | | | |
| | F | PRODUCT MANAGER | | VKW | NAC | 02 | 13 | 90 |
| | G | INTERAGENCY REFERRAL | | | | | | |
| | H | COST-BENEFIT REVIEW | | | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | | | |
| | S | | | | | | | |
| | T | | | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

Requires No Mixing

# Roundup®

## READY-TO-USE

by Monsanto

# Grass & Weed Killer

- SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION
- KILLS WEEDS AND GRASS, ROOTS AND ALL
- DOES NOT HAVE SOIL ACTIVITY
- SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES, WALKS AND SPOT TREATMENT IN LAWNS

Read the entire label before using this product.
Use only according to label instructions.
NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

Keep out of reach of children.

CAUTION! See back panel for Precautionary Statements and Directions for Use.

ACTIVE INGREDIENTS:
*Isopropylamine salt of glyphosate ..... 0.96%
INERT INGREDIENTS ..... 99.04%
100.00%

*Contains N-(phosphonomethyl) glycine

NET 64 fl. oz. (2 qts.)

® Trademark of Monsanto Company

EPA Reg. No. 524-330

897.09-000.27-1

Add:

Labeled

Change to:

Glyphosate, N-(phosphono-methyl) glycine, in the form of its isopropyla-mine salt

Delete:

ACCEPTED
FEB 26 1990
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

Keep out of reach of children.

**CAUTION!** If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water ~~in cleaning of equipment or disposal of wastes.~~

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup® L&G Ready-To-Use herbicide is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough ~~annual and perennial grasses and broad-~~leaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE: Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

### Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.

Product protected by U.S. Pat No. 3,799,758 and 4,405,531 Other patents are pending. ©MONSANTO COMPANY ~~1980~~

G L

EPA Est 56100—LA-01 524-LA-1

Superscript corresponds to the first letter of the lot number printed on bottom.

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

897.09-000.27-2X2 0 70183 50031 4

Add:

For more product information, call toll-free 1-800-225-2883.

Add:

Labeled

Change to:

when disposing of equipment wash waters.

Add:

No license granted under any non-U.S. patent.

Change to:

1989

Please read instructions and notice on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 6-30-90.

United States Environmental Protection Agency
Office of Pesticide Programs (TS-767)
Washington, DC 20460

EPA

# Application for Pesticide: [ ] Registration [X] Amendment

OPP Identifier Number 122882

## Section I

| 1. Company/Product Number | 2. Date | 3. Product Manager | 4. Proposed Classification |
|---|---|---|---|
| Monsanto / 524-330 | November 20, 1989 | Robert J. Taylor (25) | [X] General [ ] Restricted |

5. Name and Address of Applicant *(Include ZIP Code)*

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036

[ ] Check if this is a new address

6. Product Name

Roundup L&G Ready-To-Use Grass & Weed Killer

## Section II - Amendment Information

1. Subject

[ ] Resubmission in response to Agency letter [ ] Final printed label in response to Agency letter [X] Other *(explain below)*

Date of Letter

Change in active ingredient statement.
Change in Environmental Hazards statement regarding disposal of equipment washwaters.

## Section III

1. Material This Product Will Be Packaged In

| Child-Resistant Packaging | Unit Packaging | Water-Soluble Packaging |
|---|---|---|
| [ ] Yes [ ] No | [ ] Yes [ ] No | [ ] Yes [ ] No |
| | If "Yes," Unit package wgt / No. per container | If "Yes," Package weight / No. per container |

2. Type of Container

[ ] Metal
[ ] Plastic
[ ] Glass
[ ] Paper
[ ] Other *(Specify)*

3. Location of Net Contents Information

[ ] Label [ ] Container

4. Size(s) of Retail Container

5. Location of Label Directions

[ ] On Label
[ ] On material accompanying product

6. Manner in Which Label Is Affixed To Product

[ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other *(Specify)*

## Section IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application).*

Name: Dr. Kevin F. Cannon

Title: Manager, Agricultural Affairs

Telephone No. *(Include Area Code)*: (202) 452-8880

6. Date Application Received *(Stamped)*

**Certification**

I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature: Roy G. Danhaus

3. Title: Registration Manager

4. Typed Name: Roy G. Danhaus

5. Date Signed

EPA Form 8570-1 (Rev. 9-88) Previous editions are obsolete.

# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to average of 0.85 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## Instructions

### General

This form is to be used for all applications for new and amended registrations for pesticide products.

In order to process an application for new registration submitted on this form, the following material must accompany the application:

1. Offer to Pay Statement (EPA Form 8570-22, -23, or -24). (If not exempted by 40 CFR 162.9-1(b).)
2. Confidential Statement of Formula (EPA Form 8570-4).
3. Five copies of draft labeling.
4. Three copies of any data submitted.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8 1/2 x 11 inch paper or as a mockup of the proposed label. If prepared as a mockup it should be constructed in such a way as to facilitate storage in an 8 1/2 x 11 inch file. Mockup labels significantly smaller than 8 1/2 x 11 inches should be mounted on 8 1/2 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A , for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, Section I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

**Amendment Information**

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

**Packaging and Container Information**

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product labeling is attached to retail container.

**Contact Point**

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

1-5. Self-explanatory.

6. EPA Use Only.

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

November 20, 1989

Office of Pesticide Programs
U.S. Environmental Protection Agency
Document Processing Desk (AMEND)
1921 Jefferson Davis Highway
Crystal Mall #2, Room 266A
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: ROUNDUP L&G Ready-To-Use Grass & Weed Killer
EPA Reg. No. 524-330
Submission of Amended Labeling

Dear Sir:

Roundup L&G Ready-To-Use Grass & Weed Killer was approved as an additional brandname for Shackle™ Herbicide (EPA Reg No. 524-330) on 23 March 1987. We are now submitting draft container labels for the 1 pt. 8 oz., 2 quart and 1 gallon containers. The major changes in the labels are as follows:

1. The active ingredient statement has been changed to express the AI as "Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt." This terminology is prescribed by the glyphosate registration standard.

2. Under ENVIRONMENTAL HAZARDS, we have adopted the Agency prescribed statement "Do not contaminate water when disposing of equipment wash waters."

3. We have added the qualifier "labeled" to the claims of weed species killed by this product.

4. We have added a toll-free product information number.

We are enclosing a completed Application For Pesticide Amendment (EPA Form 8570-1) and five (5) copies of the draft labeling for your approval and files.

Please contact Dr. Kevin Cannon at (202) 452-8880 if there are any questions regarding this submission.

Sincerely,

Roy G. Danhaus

Roy G. Danhaus
Registration Manager

cc. K. F. Cannon
N. L. Yates-Parker
D. M. Fee C2SD
P. A. Green C2SD

Requires No Mixing

Roundup®

READY-TO-USE

by Monsanto

# Grass & Weed Killer

- SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION
- KILLS WEEDS AND GRASS, ROOTS AND ALL
- DOES NOT HAVE SOIL ACTIVITY
- SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES, WALKS AND SPOT TREATMENT IN LAWNS

Read the entire label before using this product.

Use only according to label instructions.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

Keep out of reach of children.

CAUTION!

See back panel for Precautionary Statements and Directions for Use.

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

ACTIVE INGREDIENT:

~~*Isopropylamine salt of~~ glyphosate* ..... 0.96%

INERT INGREDIENTS ... 99.04%

100.00%

~~*Butanoic—N-(phosphonomethyl) glycine~~

Product protected by U.S. Pat No. 3,799,758 and 4,405,531 Other patents are pending.

® Trademark of Monsanto Company

©MONSANTO COMPANY ~~1988~~ 1989

NET 24 fl. oz.
(1 pt. 8 oz.)

EPA Reg. No. 524-330

897.09-000.26-1

Add:

Labeled

Change to:

Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt

Delete:

Add:

No license granted under any non-U.S. patent.

Change to:

ACCEPTED

FEB 26 1989

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**Keep out of reach of children.**

CAUTION! If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water ~~by cleaning of equipment or disposal of wastes.~~

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup® L&G Ready-To-Use herbicide is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE: Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

**STORAGE AND DISPOSAL**

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.

(6)

EPA Est. 56100-LA-01

Superscript corresponds to the first letter of the lot number printed on bottom.

897.09-000.26-2X1

70183 50030

Change to:

When disposing of equipment wash waters.

Add:

Labeled

Add:

For more product information, call toll-free 1-800-225-2883.

Roundup®

Requires No Mixing

READY-TO-USE

by Monsanto

# Grass & Weed Killer

- SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION
- KILLS WEEDS AND GRASS, ROOTS AND ALL
- DOES NOT HAVE SOIL ACTIVITY
- SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES, WALKS AND SPOT TREATMENT IN LAWNS

Read the entire label before using this product.
Use only according to label instructions.
NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

Keep out of reach of children.

CAUTION! See back panel for Precautionary Statements and Directions for Use.

Product protected by U.S. Pat No. 3,799,758 and 4,405,531 Other patents are pending.

ACTIVE INGREDIENTS:
~~*Isopropylamine salt of glyphosate~~ ..... 0.96%
INERT INGREDIENTS ..... 99.04%
100.00%

~~*Contains N-(phosphonomethyl) glycine~~

* Trademark of Monsanto Company
© MONSANTO COMPANY ~~1988~~

NET 1 GAL

EPA Reg. No. 524-330

897.09-000.28-1

Add:

Labeled

Delete:

Change to:

Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt

Add:

No license granted under any any non-U.S. patent.

Change to:

1989

ACCEPTED

28 26 1990

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

Keep out of reach of children.

**CAUTION!** If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water ~~by cleaning of equipment or disposal of wastes~~.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup® L&G Ready-To-Use herbicide is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

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WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, [illegible]asses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, [illegible]rdgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sow-[illegible]tle, White Clover and Yellow Nutsedge.

[illegible]PORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CON-[illegible]TACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

### Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.

G L

EPA Est 56100—LA-01 524-LA-1

Superscript corresponds to the first letter of the lot number printed on bottom.

897.09-000.28-2X2

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

0 70183 50032 1

Add:

For more product information, call toll-free 1-800-225-2883.

Add:

Labeled

Change to:

when disposing of equipment wash waters.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

JAN 3 1990

PRODUCT NAME: ROUNDUP L&G READY-TO-USE GRASS & WEED KILLER
COMPANY NAME: MONSANTO COMPANY
APPLICATION NO: 122882
EPA REG. NO: 524-330
EPA RECEIPT DATE: 11/22/89

SUBJECT: Amendment

TO: Robert Taylor

This application has completed the Front End Review.

Sincerely,
F. W.
Frances Wrice
Front End Processing Staff

12/27/89

Product Name: ROUNDUP L&G READY-TO-USE GRASS & WEED KILLER
Company Name: MONSANTO COMPANY
Application No.: 122882
EPA Reg. No.: 524-330
EPA Receipt Date: 11/22/89

Subject: Front End Screen for an Amendment

Dear Sir or Madam:

Your application for registration has been received by the Office of Pesticide Programs and has passed a preliminary screen for completeness. It will be placed in line for review to determine its acceptability. The application will be processed in chronological order of receipt.

Although the 1988 FIFRA amendments mandate EPA to review applications for expedited registration or amendments within 90 days, this turnaround time will not be met immediately due to the backlog of applications received before December 24, 1988. However, EPA is increasing human and automated resources and making necessary procedural changes in order to eliminate the backlog and to meet the 90-day response time as soon as possible.

If you have any questions, you may contact Robert Taylor, Product Manager 25 at (703)-557-1800.

Sincerely

Donald Stott

Team Leader
Front End Processing Staff
Registration Support Branch
Registration Division (H7504C)

H7505C
F Hrice
12-27-89

Please read instructions and notice on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 6-30-90.

United States Environmental Protection Agency
Office of Pesticide Programs (TS-767)
Washington, DC 20460

EPA

**Application for Pesticide:** [ ] Registration [X] Amendment

OPP Identifier Number 122802

## Section I

| 1. Company/Product Number | 2. Date | 3. Product Manager | 4. Proposed Classification |
|---|---|---|---|
| 524-330 | March 16, 1989 | Robert J. Taylor (25) | [X] General [ ] Restricted |

5. Name and Address of Applicant *(Include ZIP Code)*

Monsanto Agricultural Company
800 N. Lindbergh Blvd.
St. Louis, Missouri 63167

Notification file

[ ] Check if this is a new address

6. Product Name

Roundup® L&G Ready-to-Use Grass and Weed Killer

## Section II - Amendment Information

1. Subject

[ ] Resubmission in response to Agency letter [ ] Final printed label in response to Agency letter [X] Other *(explain below)*

Date of Letter

Notification of reformatting of label to fit the small 2 ounce free sample.

## Section III

1. Material This Product Will Be Packaged In

| Child-Resistant Packaging | Unit Packaging | Water-Soluble Packaging |
|---|---|---|
| [ ] Yes [ ] No | [ ] Yes [ ] No | [ ] Yes [ ] No |
| | If "Yes," Unit package wgt / No. per container | If "Yes," Package weight / No. per container |

2. Type of Container: [ ] Metal [ ] Plastic [ ] Glass [ ] Paper [ ] Other *(Specify)*

3. Location of Net Contents Information: [ ] Label [ ] Container

4. Size(s) of Retail Container

5. Location of Label Directions: [ ] On Label [ ] On material accompanying product

6. Manner in Which Label Is Affixed To Product: [ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other *(Specify)*

## Section IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application).*

Name: Dr. Kevin F. Cannon

Title: Manager, Agricultural Affairs

Telephone No. *(Include Area Code)*: (202) 452-8880

6. Date Application Received *(Stamped)*

**Certification**

I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature: Roy G. Danhaus

3. Title: Senior Registration Specialist

4. Typed Name: Roy G. Danhaus

5. Date Signed: 17 March 89

EPA Form 8570-1 (Rev. 9-88) Previous editions are obsolete.

# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

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3. Five copies of draft labeling.
4. Three copies of any data submitted.

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**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

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**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters.

   An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

**Amendment Information**

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

**Packaging and Container Information**

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product labeling is attached to retail container.

**Contact Point**

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

1-5. Self-explanatory.

6. EPA Use Only.

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

March 17, 1989

Director
Registration Division (TS767C)
Office of Pesticide Programs
U.S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 245
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup Lawn & Garden Ready-To-Use Grass & Weed Killer
EPA Reg. No. 524-330
Notification of Label Format Change Needed
for 2 Ounce Free Sample

Dear Sir:

Monsanto is planning a direct-mail distribution of a 2 ounce spray bottle of Roundup L&G R. T. U. Grass & Weed Killer. Kevin Cannon has, over the last few months, previewed with your office some of the printed material that may accompany this product and thus be considered labeling. We appreciate the advice that you have given to help us develop a reformatted label that will fit this rather small container and still meet the labeling regulations.

Monsanto is now submitting the following draft labeling and related printed material that will accompany this product as it reaches the user. We consider that the changes constitute reformatting of the product label and therefore, we are submitting them as changes that require notification, but not approval, as provided for in 40CFR 142.46 published in Federal Register May 4, 1988. Five copies of each of the following labels or related material are being sent for your file.

1. A final printed bottle label for the 2 ounce free sample. Copies of this bottle label were submitted for your file on February 7, 1989.

2. A flat facsimile of the box which will surround the 2 ounce bottle.

3. A facsimile of the pamphlet which contains full Directions for Use. This pamphlet will be folded into a one inch wide size and placed over the top of the bottle in a horse shoe shape inside the box. One full color pamphlet is included to show how it is folded for insertion into the box.

4. A facsimile of the mailer folder which will accompany this product. We do not consider this mailer "labeling" but it is included for your information.

Please note that the bottle label contains Signal Words, Precautionary Statements, Active Ingredient Statement, EPA Registration Number and Storage and Disposal information. The box contains the above information but not the Storage and Disposal information. The pamphlet contains all of the label elements listed above for the box plus full directions for use. The repetition of label elements is thought to be needed to quickly inform the recipient that the package contains a pesticide product, and to provide easy access to all the required elements of the label.

A completed form for Amendment of Pesticide Registration is included.

Please call D. Kevin Cannon if there are any questions regarding these labels and related materials.

Sincerely,

Roy G. Danhaus
Sr. Registration Specialist

cc. G. B. Fuller
K. F. Cannon
M. N. Cline M2C
D. M. Fee C2SD

FREE SAMPLE

# Roundup®. Nothing kills weeds better... easier.

Use the free sample to prove it to yourself. Select an easy-to-observe area with undesirable grasses or weeds. Spray on Roundup® Grass and Weed Killer according to directions. Watch yellowing occur in 3-7 days. Complete browning follows, indicating roots and all are dead. Reapply Roundup whenever new weed seeds occur. Available at most nearby stores selling quality lawn and garden care products.

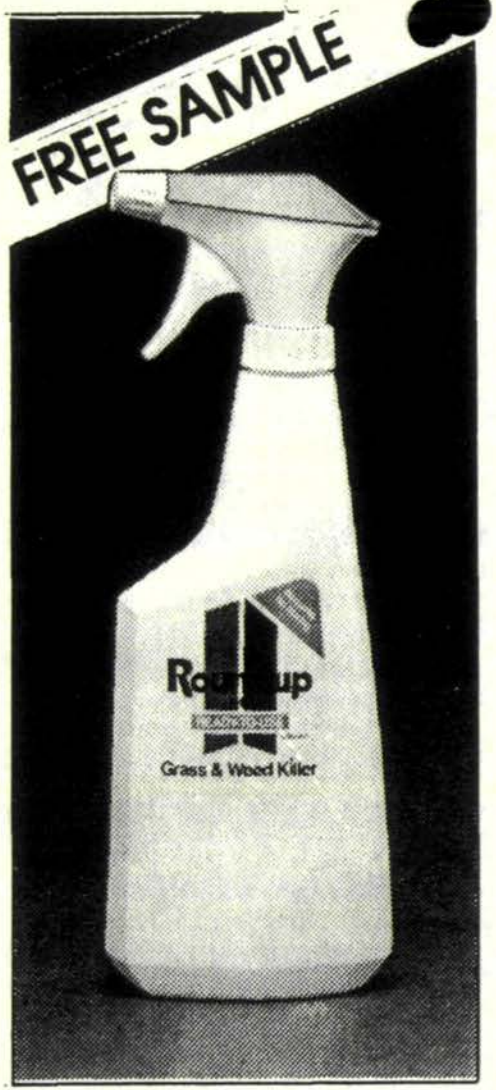
**Always read and follow label directions.**

Roundup® is a registered trademark of Monsanto Company. ©Monsanto Company 1989.

136-89-L102

MAILER

Hughes Advertising Inc.
Client: Monsanto
Date: 01/31/89, Revised 2-13-89, Revised 2-17
Job No.: MONS-046
Disk: Monsanto-3 File: MONS046Card
Ft. 18, 17, 101,102 Dress: 11




Product Sample
1000 Donnelley Drive
Elm City, NC 27822

BULK RATE
U.S. POSTAGE
PAID
PERMIT NO. 101
ELM CITY, NC

Postal Service Regulations require that the address card be delivered together with its accompanying postage paid sample. If you should receive this card without its accompanying sample, please notify your local postmaster.

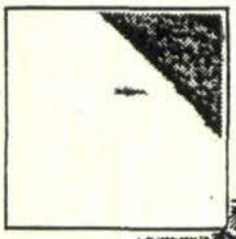
MAILER

Hughes Advertising Inc.
Client: Monsanto
Date: 01/31/89 Job No.: M
Disk: Monsanto-3 File: MO
Ft. 101,102 Dress: 10

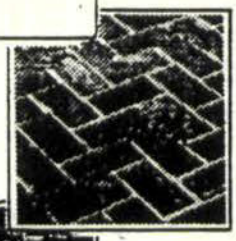
PAMPHLET OUTSIDE

## Roundup® is the easy way to kill actively growing weeds, roots and all...

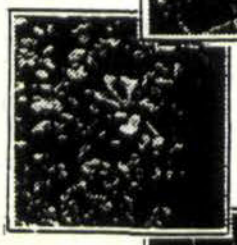
Around Decks • Trees • Rock Beds • Pools • Lamp Posts • Mowing Obstacles • Pine Islands • Flower Beds • Curbs



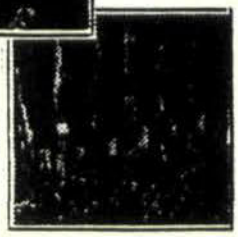
In sidewalk cracks



On patios



In mulched beds

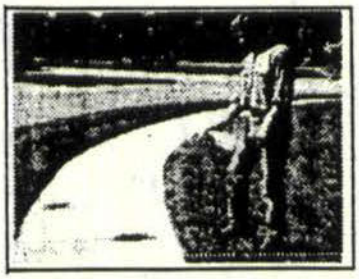


Along fences

## Just aim and spray. Apply only to unwanted weeds.

Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most weeds.

Roundup is ideal for use on weeds in shrub and flower beds. It won't move through the soil to harm the roots of nearby plants.



Roundup is more effective than hand-pulling, because it kills the whole weed, roots and all. Re-apply Roundup whenever growth results from new weed seeds.

## There's a Roundup® Grass and Weed Killer that's right for every type of weeding job.

Ready-to-Use

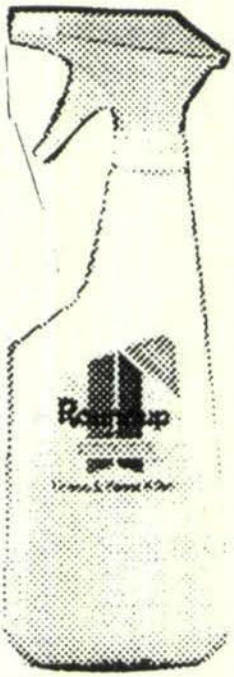
Concentrate

Super Concentrate

Brush Killer

136-89-L98

## Nothing kills weeds better than Roundup®



**See directions for use inside.**

FRONT



Revised 2-7-89 Revised 2-13-89 Revised 2-17-89

PAMPHLET INSIDE

# Roundup® L&G READY-TO-USE by Monsanto

## Grass & Weed Killer

**SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION**

**Keep out of reach of children.**

# CAUTION!

**ACTIVE INGREDIENTS:**

| | |
|---|---|
| *Isopropylamine salt of glyphosate | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

*Contains N-(phosphonomethyl) glycine

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

CAUTION! If swallowed, may cause gastro-intestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of emergency involving this product, call collect, day or night, (314) 694-4000.

### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water by cleaning of equipment or disposal of wastes.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup L&G Ready-To-Use is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE: Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed stopping just before the spray begins to drip or run off. One application will control most listed weeds.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

**See storage and disposal directions on bottle label.**

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Roundup® is a registered trademark of Monsanto Company.
EPA Reg. No. 524-330
897.09-000.19

BACK



Hugh
Client
Date:
Job
Disk:

BOX LABEL

FREE SAMPLE

Roundup®

Grass & Weed Killer

## Keep out of reach of children.

# CAUTION!

ACTIVE INGREDIENTS:
*Isopropylamine salt of glyphosate.....0.96%
INERT INGREDIENTS....99.04%
100.00%

*Contains N-(phosphonomethyl) glycine

Read the entire label before using this product. Use only according to label instructions.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

### PRECAUTIONARY STATEMENTS

**Hazards to Humans and Domestic Animals**

CAUTION! If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of emergency involving this product, call collect, day or night (314) 694-4000.

**For complete information see both bottle label and insert inside carton.**

**See for yourself. A simple spray of Roundup® helps you take the hard work out of weeding.**

- **In sidewalk and driveway cracks**

- **In patios and brick pathways**
- **Anywhere you don't want grasses and weeds**

**Roundup is...**
- **Economical**
- **Easy-to-use**
- **Effective**
- **Environmentally compatible**

FREE SAMPLE

# Roundup.® Nothing kills weeds better... easier.

**See for yourself. A simple spray kills unwanted grasses and weeds, roots and all, in hard-to-weed places.**

- **Mulched areas and rock beds**

- **Along fences and hard-to-mow areas**
- **Anywhere you don't want grasses and weeds**

**Roundup is available in ready-to-use spray applicator bottles and tank-mix concentrates.**

©Monsanto Company 1989
St. Louis, MO 63167

Roundup® is a registered trademark of Monsanto Co.

136-89-S99

**Keep out of reach of children.**

**CAUTION!** Precautions on back panel.

ACTIVE INGREDIENTS:
*Isopropylamine salt of glyphosate .....0.96%
*INERT INGREDIENTS*.....99.04%
100.00%

*Contains N-(phosphonomethyl) glycine

EPA Reg. No. 524-330
897.09-000.20HP
EPA Est. 56100-LA-01

FREE SAMPLE

Roundup®

Grass & Weed Killer

es Advertising Inc.
t: Monsanto
01/11/88, Revised 1-25-89, Revisions 1-31-89, Revised 2-7-89, Revised 2-13-89, Revised 2-17-89
No.: MONS-046
Monsanto-2 File: MONS046Box
01,102 Dress: 10

Read the entire label before using this product. Use only according to label instructions.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

## PRECAUTIONARY STATEMENTS
### Hazards to Humans and Domestic Animals

**CAUTION!** If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of emergency involving this product, Call Collect, day or night, (314) 694-4000.

### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water by cleaning of equipment or disposal of wastes.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

### Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**STORAGE:** USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

**DISPOSAL:** To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash. Do not reuse container. Rinse thoroughly before discarding in trash.

(See pamphlet for Complete Directions for Use)

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EPA Reg. No. 524-330 EPA Est. 56100-LA-01 897.09-000.12HP

Roundup L&G® READY-TO-USE by Monsanto

# Grass & Weed Killer

• SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION

Keep out of reach of children.

**CAUTION!** See back panel for Precautionary Statements

ACTIVE INGREDIENTS:

| | |
|---|---|
| *Isopropylamine salt of glyphosate | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

*Contains N-(phosphonomethyl) glycine

**SAMPLE** NOT FOR SALE

Read the entire label before using this product. Use only according to label instructions.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals

CAUTION! If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of emergency involving this product, Call Collect, day or night, (314) 694-4000.

Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water by cleaning of equipment or disposal of wastes.

DIRECTIONS FOR USE

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Storage and Disposal

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(See pamphlet for Complete Directions for Use)

®Trademark of Monsanto Company, St. Louis, Missouri 63167 U.S.A. ©1988

EPA Reg. No. 524-330 EPA Est. 56100-LA-01 897.09-000.12HP

Roundup L&G® READY-TO-USE by Monsanto

Grass & Weed Killer

• SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION

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Hazards to Humans and Domestic Animals

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Environmental Hazards

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DIRECTIONS FOR USE

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EPA Reg. No. 524-330 EPA Est. 56100-LA-01 897.09-000.12HP

Roundup L&G® READY-TO-USE by Monsanto

Grass & Weed Killer

• SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION

Keep out of reach of children.

CAUTION! See back panel for Precautionary Statements

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PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals

CAUTION! If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of emergency involving this product, Call Collect, day or night, (314) 694-4000.

Environmental Hazards

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DIRECTIONS FOR USE

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(See pamphlet for Complete Directions for Use)

®Trademark of Monsanto Company, St. Louis, Missouri 63167 U.S.A. ©1988

EPA Reg. No. 524-330 EPA Est. 56100-LA-01 897.09-000.12HP

Roundup L&G® READY-TO-USE by Monsanto

Grass & Weed Killer

• SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION

Keep out of reach of children.

CAUTION! See back panel for Precautionary Statements

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### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water by cleaning of equipment or disposal of wastes.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

## Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**STORAGE:** USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

**DISPOSAL:** To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash. Do not reuse container. Rinse thoroughly before discarding in trash.

(See pamphlet for Complete Directions for Use)

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EPA Reg. No. 524-330 EPA Est. 56100-LA-01 897.09-000.12HP

# Roundup LG®

READY-TO-USE

by Monsanto

## Grass & Weed Killer

• SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION

Keep out of reach of children.

**CAUTION!** See back panel for Precautionary Statements

ACTIVE INGREDIENTS:

| | |
|---|---|
| *Isopropylamine salt of glyphosate | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

*Contains N-(phosphonomethyl) glycine

**SAMPLE** NOT FOR SALE

## Roundup® is the easy way to kill actively growing weeds, roots and all...

Around Decks • Trees • Rock Beds • Pools • Lamp Posts • Mowing Obstacles • Pine Islands • Flower Beds • Curbs

In sidewalk cracks

On patios

In mulched beds

Along fences

## Just aim and spray. Apply only to unwanted weeds.

Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most weeds.

Roundup is ideal for use on weeds in shrub and flower beds. It won't move through the soil to harm the roots of nearby plants.

Roundup is more effective than hand-pulling, because it kills the whole weed, roots and all. Re-apply Roundup whenever growth results from new weed seeds.

## There's a Roundup® Grass and Weed Killer that's right for every type of weeding job.

Ready-to-Use

Concentrate

Super Concentrate

Brush Killer

136-89-L98

## Nothin kills weed bette than Round

See direction for use inside.

# Roundup® L&G READY-TO-USE

by Monsanto

## Grass & Weed Killer

**SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION**

**Keep out of reach of children.**

# CAUTION!

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| | |
|---|---|
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## PRECAUTIONARY STATEMENTS

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### Environmental Hazards

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Roundup L&G Ready-To-Use is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

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IMPORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

**See storage and disposal directions on bottle label.**

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EPA Reg. No. 524-330
897.09-000.19

BOX LABEL

FREE SAMPLE

Roundup®

Grass & Weed Killer

## Keep out of reach of children.

# CAUTION!

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INERT INGREDIENTS....99.04%
100.00%

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NOTICE: Buyer assumes all responsibility for safety and *use not in accordance with* directions. If these terms are not acceptable, return at once unopened.

### PRECAUTIONARY STATEMENTS

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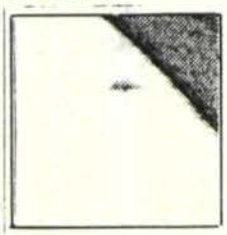
**For complete information see both bottle label and insert inside carton.**

**See for yourself. A *simple spray of* Roundup® helps you take the hard work out of weeding.**



- **In sidewalk and driveway cracks**

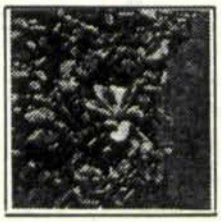
- **In patios and brick pathways**
- **Anywhere you don't want grasses and weeds**

**Roundup is...**
- **Economical**
- **Easy-to-use**
- **Effective**
- **Environmentally compatible**

FREE SAMPLE

# Roundup.® Nothing kills weeds better... easier.

**See for yourself. A *simple spray kills* unwanted grasses and weeds, roots and all, in hard-to-weed places.**



- **Mulched areas and rock beds**

- **Along fences and hard-to-mow areas**
- **Anywhere you don't want grasses and weeds**

**Roundup is available in ready-to-use spray applicator bottles and tank-mix concentrates.**

©Monsanto Company 1989
St. Louis, MO 63167

Roundup® is a registered trademark of Monsanto Co.

136-89-S99

Keep out of reach of children.

**CAUTION!** Precautions on back panel.

ACTIVE INGREDIENTS:
*Isopropylamine salt of glyphosate .....0.96%
*INERT INGREDIENTS*.....99.04%
100.00%

*Contains N-(phosphonomethyl) glycine

EPA Reg. No. 524-330
897.09-000.20HP
EPA Est. 56100-LA-01

FREE SAMPLE

Roundup®

Grass & Weed Killer

nes Advertising Inc.
t: Monsanto
: 01/11/88, Revised 1-25-89, Revisions 1-31-89, Revised 2-7-89, Revised 2-13-89, Revised 2-17-89
No.: MONS-046
: Monsanto-2 File: MONS046Box
01,102 Dress: 10

FREE SAMPLE

# Roundup®. Nothing kills weeds better... easier.

Use the free sample to prove it to yourself. Select an easy-to-observe area with undesirable grasses or weeds. Spray on Roundup® Grass and Weed Killer according to directions. Watch yellowing occur in 3-7 days. Complete browning follows, indicating roots and all are dead. Reapply Roundup whenever new weed seeds occur. Available at most nearby stores selling quality lawn and garden care products.

**Always read and follow label directions.**

Roundup® is a registered trademark of Monsanto Company. ©Monsanto Company 1989.

136-89-L102

MAILER

Hughes Advertising Inc.
Client: Monsanto
Date: 01/31/89, Revised 2-13-89, Revised 2-17
Job No.: MONS-046
Disk: Monsanto-3 File: MONS046Card
Ft. 18, 17, 101,102 Dress: 11

Product Sample
1000 Donnelley Drive
Elm City, NC 27822

BULK RATE
U.S. POSTAGE
PAID
PERMIT NO. 101
ELM CITY, NC

99

Postal Service Regulations require that the address card be delivered together with its accompanying postage paid sample. If you should receive this card without its accompanying sample, please notify your local postmaster.

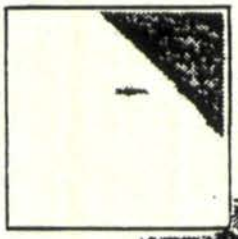
MAILER

Hughes Advertising Inc.
Client: Monsanto
Date: 01/31/89 Job No.: M
Disk: Monsanto-3 File: MC
Ft. 101,102 Dress: 10

PAMPHLET OUTSIDE

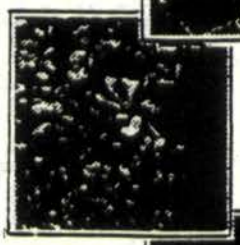
## Roundup® is the easy way to kill actively growing weeds, roots and all...

Around Decks • Trees • Rock Beds • Pools • Lamp Posts • Mowing Obstacles • Pine Islands • Flower Beds • Curbs

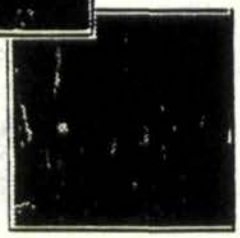


In sidewalk cracks

On patios



In mulched beds

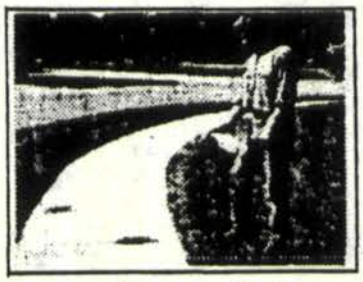


Along fences

## Just aim and spray. Apply only to unwanted weeds.

Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most weeds.

Roundup is ideal for use on weeds in shrub and flower beds. It won't move through the soil to harm the roots of nearby plants.



Roundup is more effective than hand-pulling, because it kills the whole weed, roots and all. Re-apply Roundup whenever growth results from new weed seeds.

## There's a Roundup® Grass and Weed Killer that's right for every type of weeding job.

Ready-to-Use

Concentrate

Super Concentrate

Brush Killer

136-89-L98

## Nothing kills weeds better than Roundup®

**See directions for use inside.**

FRONT

PAMPHLET INSIDE

# Roundup® L&G READY-TO-USE by Monsanto

## Grass & Weed Killer

**SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION**

**Keep out of reach of children.**

# CAUTION!

**ACTIVE INGREDIENTS:**

| | |
|---|---|
| *Isopropylamine salt of glyphosate | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

*Contains N-(phosphonomethyl) glycine

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

CAUTION! If swallowed, may cause gastro-intestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of emergency involving this product, call collect, day or night, (314) 694-4000.

### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water by cleaning of equipment or disposal of wastes.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup L&G Ready-To-Use is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE: Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed stopping just before the spray begins to drip or run off. One application will control most listed weeds.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

**See storage and disposal directions on bottle label.**

©Monsanto Company 1989
Roundup® is a registered trademark of Monsanto Company.
EPA Reg. No. 524-330
897.09-000.19

BACK



Hugh
Clien
Date
Job
Disk:

# JAN/SAN™ II

HERBICIDE BY **Monsanto**

Keep out of reach of children.

## CAUTION!

Read the entire label before using this product. Use only according to label instructions. Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.
REFORMULATION OR REPACKAGING IS PROHIBITED.

ACTIVE INGREDIENT:

| | |
|---|---|
| *Isopropylamine salt of glyphosate | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

*Contains N-(phosphonomethyl) glycine

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**CAUTION!** If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night (314) 694-4000.

### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water when disposing of equipment washwaters.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This product is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, walks and in flower gardens and lawns. Yellowing and wilting usualy occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

Product protected by U.S. Pat. Nos. 3,799,758 and 4,405,531. Other patents pending. No license granted by any non-U.S. patent.

™Trademark of Monsanto Company.

102

EPA Est. 524-LA-1
EPA Reg. No. 524-330

© 1988

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

**NET GAL**

GPL-002

NOT[illegible]
In Accordance with PR Notice 83-2.
Based on Draft Labeling Dated

**HOW TO USE:** Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hand-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

**WEEDS CONTROLLED:** Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

**IMPORTANT:** This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

## Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**STORAGE:** Store this product in its original container and in a secured storage area.
**DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed.

Do not reuse container. Triple rinse container. Then puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

# Monsanto

**MONSANTO AGRICULTURAL COMPANY**
800 N. Lindbergh Boulevard
St. Louis, Missouri 63167
Phone: (314) 694-1000

September 23, 1988

Director
Registration Division (TS767C)
Office of Pesticide Programs
U.S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 726
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: JAN/SAN II Herbicide
EPA Reg. No. 524-330
Submission of Final Printed Labels
for Agency Files

Dear Sir:

On August 9, 1988, Monsanto informed the Agency by a Letter of Notification of the creation of JAN/SAN II Herbicide, an additional brand name for Roundup L&G Ready-To-Use Grass & Weed Killer (EPA Reg. No. 524-330). At this time, Monsanto is submitting five (5) final printed container labels for JAN/SAN II Herbicide for the Agency files.

If there are any questions or comments about the enclosed labels please contact Dr. Kevin Cannon of our Washington, D.C. office.

Sincerely,

Roy G. Danhaus
Senior Registration Specialis

cc. G. B. Fuller
L. L. Gingerich M2C
D. M. Fee C2SD

OCT 31 1988

Mr. Roy G. Danhaus
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Dear Mr. Danhaus:

Subject: Roundup L&G Ready to Use Grass & Weed Killer (Notification of Brand Name)
EPA Registration No. 524-330
Your Letter Dated August 9, 1988

Your notification of the additional product name "JAN/SAN II Herbicide" has been received and is acceptable. A stamped copy of the labeling bearing this name is enclosed for your records.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

Enclosure

52716:I:Taylor:T-8:KENCO:10/20/88:11/01/88:de:EK:VO:CT

CONCURRENCES

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL | TS-767C | | | | | | | |
| SURNAME | G.K.Walker | | | | | | | |
| DATE | 10/28/88 | | | | | | | |

EPA Form 1320-1 (12-70) OFFICIAL FILE COPY

# JAN/SAN™ II

HERBICIDE BY Monsanto

**Keep out of reach of children.**

## CAUTION!

Read the entire label before using this product. Use only according to label instructions. Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.
REFORMULATION OR REPACKAGING IS PROHIBITED.

ACTIVE INGREDIENT
*Isopropylamine salt of glyphosate. . . . . 0.96%
INERT INGREDIENTS. . . . . 99.04%

*Contains N-(phosphonomethyl)glycine

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

CAUTION! If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water when disposing of equipment washwaters.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This product is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This proudct has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

Product protected by U.S. Pat. Nos. 3,799,758 and 4,405,531. Other patents pending. No license granted under any other U.S. patent.

™ Monsanto Company, St. Louis, Missouri 63167 U.S.A.

EPA Est. 524-LA-1 C 1988 EPA Reg. No. 524-330

NET GAL

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

GPL-002

HOW TO USE: Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

## Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: Store this product in its original container and in a secured storage area.

DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed.

Do not reuse container. Triple rinse container. Then puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicity set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PROUDCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

ACCEPTED

OCT 31 1988

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

EBU

9-12-89

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

August 9, 1988

Director
Registration Division (TS767C)
Office of Pesticide Programs
U.S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 726
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup L&G Ready-To-Use Grass & Weed Killer
EPA Reg. No. 524-330
Notification of Additional Product Name
JAN/SAN™ II Herbicide

Dear Sir:

Roundup L&G Ready-To-Use Grass & Weed Killer was registered by the Agency on March 23, 1988, and assigned the EPA Reg. No. 524-330.

Roundup L&G Ready-To-Use Grass & Weed Killer has many applications which are useful around the home and garden and also around hospitals, schools, churches, office complexes and other institutional settings. Monsanto now wishes to create JAN/SAN II Herbicide, a brand name for the institutional service industry. The JAN/SAN II Herbicide label lists the applications of Roundup L&G RTU which are appropriate for institutional use. This product segmentation does not result in any changes in the Precautionary Statements or the application instructions. The Storage and Disposal statements on the JAN/SAN II Herbicide label are those which are appropriate for use by the institutional service industry.

Monsanto is sending five (5) copies of draft labeling for Agency files. We will submit final printed labels when they are produced. It is our understanding that registrants now may segment pesticide product uses to create new brand names provided that the Agency is notified of the action.

It is also our understanding that the Agency does not need to approve the new product label before it may be used in commerce. With this submission, Monsanto asks the Agency's concurrence on this understanding, which we hope you will relay to Dr. Kevin Cannon of our Washington, D. C. office.

Sincerely,

Roy G. Danhaus

Roy G. Danhaus
Senior Registration Specialist

/dh
Enclosure

cc: K. F. Cannon
G. B. Fuller
I. C. O'Connor
N. Yates-Parker

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SEP - 7 1988

Dr. Timothy J. Long
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

yellow copy

Dear Dr. Long:

Subject: MON 0139 (Response to Registration Standard)
EPA Registration No. 524-318
MON 0139 (62% Solution)
EPA Registration No. 524-333
Shackle C
EPA Registration No. 524-339
Roundup Herbicide
EPA Registration No. 524-308
Accord Herbicide
EPA Registration No. 524-326
Shackle Herbicide
EPA Registration No. 524-330
Polado Herbicide
EPA Registration No. 524-332
Bronco
EPA Registration No. 524-341
Rodeo Herbicide
EPA Registration No. 524-343
Landmaster Herbicide
EPA Registration No. 524-351
Roundup L&G Herbicide
EPA Registration No. 524-370
Landmaster II
EPA Registration No. 524-376
Ranger Herbicide
EPA Registration No. 524-382
Your Letters Dated September 3, September 8, September 9, September 10, 1987; February 23, February 24, March 16, April 15, June 20, and July 18, 1988

This acknowledges receipt of the data submitted above in response to the Registration Standard for Glyphosate. The following are a list of studies/information submitted and MRID Numbers assigned the data.

1. Olives and Olive Oil Information

2. Soybean Soapstock Information

3. Peanut Information

4. Tea Information

5. Wheat Milled Products Information

6. Residue Determination of Glyphosate in Laying Hen Tissues and Eggs Following a 28-Day Feeding Study - 405320-01

7. Residue Determination of Glyphosate and AMPA in Swine Tissues Following a 28-Day Feeding Study - 405320-02

8. Residue Determination of Glyphosate and AMPA in Dairy Cow Tissues and Milk Following a 28-Day Feeding Study - 405320-03

9. Storage Stability Study of Glyphosate and AMPA in Swine Tissues, Dairy Cow Tissues and Milk, Laying Hen Tissues and Eggs - 405320-04

10. Metabolism Study of Synthetic $^{13}C/^{14}C$-Labeled Glyphosate and Aminomethylphosphonic Acid in Lactating Goats - 405413-01

11. Metabolism Study of Synthetic $^{13}C/^{14}C$-Labeled Glyphosate and Aminomethylphosphonic Acid in Laying Hens - 405413-02

12. Validation of an Analytical Method for the Determination of Glyphosate Residues in Animal Tissues - 405413-03

13. Glyphosate Residues in Alfalfa Hay and Seed Following Scattered Spot Treatment - 405413-04

14. Irrigated Crop Study - Determination of Glyphosate Residues in Crops, Irrigation Water, Sediment, and Soil Following Treatment of Irrigation Source with Rodeo - 405413-05

15. 90-Day Study of Glyphosate Administered in Feed to Sprague-Dawley Rats - 405594-01

16. Residues in Celery - 405780-01

17. Residues in Spinach - 405780-02

18. Residues in Mango - 405804-01

19. Metabolism of Glyphosate in Sprague-Dawley Rats Part I - 407671-01

20. Metabolism of Glyphosate in Sprague-Dawley Rats Part II - 407671-02

21. Glyphosate Residue in Plums and Prunes Following Preharvest Treatment with Roundup Herbicide - 407853-01

22. Glyphosate Residues in Potatoes and Processed Fractions of Potatoes After Treatment with Roundup Herbicide - 407853-02

23. Glyphosate Residues in Grapes and Grape Processing Commodities Following Directed Spray Treatment with Roundup Herbicide - 407853-03

24. Glyphosate Residues in Sugar Beets and Sugar Beet Processing Commodities Following Preemergent Application of Roundup Herbicide - 407853-04

Sincerely yours,

VKW

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

JAN 25 1988

Dr. Timothy J. Long
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Dear Dr. Long:

Subject: Roundup L & G Ready-to-Use (Acute Inhalation Study)
EPA Registration No. 524-330
Your Letter Dated May 27, 1987

The scientific review and evaluation of the subject amendment have been completed. The following are our conclusions/comments.

1. This study is classified as a Core Guideline Data.

2. The Toxicity Category for this study is IV-Caution.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

15405:I:Taylor:T-15:KENCO:1/21/88:1/29/88:CB:dg:vo:rw

CONCURRENCES

| | ORIGINATOR | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL | TS-767C | | | | | | | |
| SURNAME | VKwalew | | | | | | | |
| DATE | 1/25/88 | | | | | | | |

OFFICIAL FILE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

JAN - 7 1988

MEMORANDUM

SUBJECT: EPA Registration No. 524-330
Shackle Herbicide

FROM: Deloris F. Graham DFG 1/14/88 E 1/14/88
Technical Support Section
Fungicide-Herbicide Branch
Registration Division (TS-767C)

TO: Robert J. Taylor, PM 25
Fungicide-Herbicide Branch
Registration Division (TS-767C)

APPLICANT: Monsanto Company
1101 17th Street NW.
Washington, DC 20036

ACTIVE INGREDIENTS:
Isopropylamine salt of glyphosate . . . . . 0.96%
INERT INGREDIENTS: . . . . . 99.04%

BACKGROUND:

Submitted Acute Inhalation Study under Agency miscellaneous data code (400). Study conducted Monsanto Company Environmental Health Laboratory, St. Louis, Missouri. Data under EPA MRID No. 402486-01. Method of support not indicated.

RECOMMENDATION:

1. FHB/TSS finds this study acceptable to support conditional registration of this product.
2. The toxicity category based upon this study alone is IV - CAUTION.

LABEL:

No precautionary labeling required in regard to acute inhalation.

REVIEW:

(1) Acute Inhalation Toxicity Study: Monsanto Company; Reference No.: EHL 86148; March 31, 1987; EPA MRID No. 402486-01.

PROCEDURE:

Five male and five female rats were exposed for four hours to a 8.9 mg/l concentration of test material. Nominal concentration reported to be 169 mg/l. Mass median aerodynamic diameter reported to be 4.0 microns. Mean temperature and relative humidity reported to be 24°C and 97% respectively. Observations made for 14 days postexposure. Necropsy performed on all animals.

RESULTS:

No deaths, toxic signs or abnormalities at necropsy reported.

STUDY CLASSIFICATION: Core Guideline Data

TOXICITY CATEGORY: IV - CAUTION

# REGISTRATION DIVISION DATA REVIEW RECORD

*Confidential Business Information — Does Not Contain National Security Information (E.O. 12065)*

1. CHEMICAL NAME: Glyphosate

| 2. IDENTIFYING NUMBER | 3. ACTION CODE | 4. ACCESSION NUMBER | TO BE COMPLETED BY PM |
|---|---|---|---|
| 524-330 | 400 | 40248601 | 5. RECORD NUMBER: 202027 |
| | | | 6. REFERENCE NUMBER: 7 |
| | | | 7. DATE RECEIVED (EPA): 6/29/87 |
| | | | 8. STATUTORY DUE DATE |
| | | | 9. PRODUCT MANAGER (PM): Taylor / V/K Walker |
| | | | 10. PM TEAM NUMBER: 25 |

14. CHECK IF APPLICABLE

- ☐ Public Health/Quarantine
- ☐ Minor Use
- ☐ Substitute Chemical
- ☐ Part of IPM
- ☐ Seasonal Concern
- ☒ Review Requires Less Than 4 Hours

TO BE COMPLETED BY PCB

11. DATE SENT TO HED/TSS
12. PRIORITY NUMBER
13. PROJECTED RETURN DATE

15. INSTRUCTIONS TO REVIEWER

A. HED
- ☐ Total Assessment - 3(c)(5)
- ☐ Incremental Risk Assessment - 3(c)(7) and/or E.L. Johnson memo of May 12, 1977.

B. SPRD (Send Copy of Form to SPRD PM)
- ☐ Chemical Undergoing Active RPAR Review
- ☐ Chemical Undergoing Active Registration Standards Review

C. ☐ BFSD
D. ☐ TSS/RD
E. ☒ Other

F. INSTRUCTIONS: acute inhalation study in rats

16. RELATED ACTIONS

. 3(c)(1)(D)
- ☐ Use Any or All Available Information
- ☐ Use Only Attached Data
- ☐ Use Only the Attached Data for Formulation and Any or All Available Information on the Technical or Manufacturing Chemical.

18. REVIEWS SENT TO
- ☐ TB ☐ EEB ☐ EF ☒ PL
- ☐ RCB ☐ EFB ☐ CH ☐ BFSD

| 19. | To | TYPE OF REVIEW | NUMBER OF ACTIONS: Registration | Petition | EUP | SLN | Sec. 18 | Inert | MNR. USE | Other |
|---|---|---|---|---|---|---|---|---|---|---|
| HED | | TOXICOLOGY | | | | | | | | |
| HED | | ECOLOGICAL EFFECTS | | | | | | | | |
| HED | | RESIDUE CHEMISTRY | | | | | | | | |
| HED | | ENVIRONMENTAL DATE | | | | | | | | |
| RD/TSS | | CHEMISTRY | | | | | | | | |
| RD/TSS | | EFFICACY | | | | | | | | |
| RD/TSS | ✓ | ~~PRECAUTIONARY LABELING~~ DU | 1 | | | | | | | 1/7/88 |
| BFSD | | ECONOMIC ANALYSIS | | | | | | | | |

| 20. ☐ Label Submitted with Application Attached | 21. ☐ Confidential Statement of Formula | 22. ☐ Representative Labels Showing Accepted Uses Attached | 23. Date Returned to RD (to be completed by HED) | 24. Include an Original and 4 (four) Copies of This Completed Form for Each Branch Checked for Review. |
|---|---|---|---|---|



EPA Form 8570-13 (Rev. 11-81) PREVIOUS EDITIONS ARE OBSOLETE.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP - 7 1988

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Dr. Timothy Long
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

yellow copy

Dear Dr. Long:

Subject: MON 0139 (Response to Registration Standard)
EPA Registration No. 524-318
MON 0139 (62% Solution)
EPA Registration No. 524-333
Shackle C
EPA Registration No. 524-339
Roundup Herbicide
EPA Registration No. 524-308
Accord Herbicide
EPA Registration No. 524-326
Shackle Herbicide
EPA Registration No. 524-330
Polado Herbicide
EPA Registration No. 524-332
Bronco
EPA Registration No. 524-341
Rodeo Herbicide
EPA Registration No. 524-343
Landmaster Herbicide
EPA Registration No. 524-351
Roundup L&G Herbicide
EPA Registration No. 524-370
Landmaster II
EPA Registration No. 524-376
Ranger Herbicide
EPA Registration No. 524-382
Your Letters Dated November 7 and December 22, 1986;
January 27, March 6, April 10, June 5, and June 8, 1987

The scientific review and evaluation of the information/data submitted above have been completed. The following are our conclusions and comments.

Residue Chemistry

1. We agree that a label restriction for crayfish farming in rice fields will not be necessary once the tolerance for shellfish is established. Until the shellfish tolerance is established, the restriction on double-cropping crayfish in rice fields must remain.

2. Since you have agreed to do the grape processing study and since the processing of both grapes and plums is essentially only a drydown procedure, we defer judgment on the plum processing requirement until the grape processing study is reviewed.

3. We accept the proposed revised labeling for cancellation of specific 24(c) registrations on sorghum/selective equipment and imposing a grazing and feeding restriction for pineapple and sugarcane.

4. Section 180.364(c) of Title 40 of the Code of Federal Regulations (40 CFR 180.364(c)) needs to be completely revised by deleting the existing crop groupings and proposing new groupings that are consistent with 180.34(f) (I through XVIII excluding the herbs and spices crop group XIX). Since field trial residue data are not available for commodities in the herbs and spices crop group, and for other commodities not in a crop group such as those in 180.34(f)(7), i.e., banana, peanuts, mushrooms, etc., field trial residue data are required from the proposed use to support a 40 CFR 180.364(c) tolerance.

5. Based on a previous report showing irrigation waters containing 0.5 and 5X application rates for 3 consecutive days on representative commodities from seven crop groups, the Agency concludes that additional field trial data will not be required for crop group tolerances for the proposed irrigation uses.

6. We conclude that the HPLC glyphosate method is an improvement over the GLC method. It generally gives equal or higher, and more consistent, recoveries. We point out the potential for more positive glyphosate samples and results closer to existing tolerances. Overall data are lacking to show tolerances need to be revised upward. The limit of sensitivity or quantification should be stated as 5 ppb in water and the water limit of detection should be 0.5 ppb.

7. Clean, non-CBI or proprietary (no copyright) methods using the ninhydrin/absorbance detector to enforce food tolerances and the direct injection HPLC revision of these methods to enforce/monitor the 0.5 ppm water tolerance are needed for publication in PAM-II at the same time we publish the MTO, assuming it passes the MTO.

Toxicology

1. Rat Feeding Study

   a. During the discussion, the dose levels were stated to be 1000, 5000, and 20,000 ppm for the rat study. Based on the discussion presented, 20,000 ppm would be consistent with the position paper on maximum tolerated dose (MTD) and the seemingly lack of dose-related effects in the 90-day study.

   b. In the discussion, it was stated by the Agency that a low dose had to be used that would establish the NOEL for the study. The June 5, 1987 Monsanto letter states that the following dose levels have been chosen for the chronic rat study: 0, 2000, 8000, and 20,000 ppm. Please note the Agency has only concurred with the high-dose, not the mid- and low-dose levels.

2. The Agency concurs with the waiver request regarding the acute inhalation study with glyphosate technical. This study is not required.

3. Mouse Oncogenicity Study

   a. The Agency does not concur with the waiver request of the repeat mouse study.

   b. The repeat mouse oncogenicity study is considered to be a specially designed study for the specific purpose of clarifying certain unresolved questions relating to the potential oncogenicity of glyphosate. Therefore, the following recommendations are made:

      1) The study should be performed at dosage levels of 7500, 15,000, and 30,000 ppm.

      2) Only male mice should be tested; 200 mice per group may be needed.

      3) A "tier approach" to the pathological examinations in this study.

         a) First, a very thorough and complete gross necropsy should be performed on all animals in this study, particularly noting all findings suggestive of possible tumors.

         b) Second, a full and complete set of tissues/organs should be excised and fixed from each animal in the study (for possible future need).

e) Third, it will only be necessary in the "first tier" to do the following:

i. Process and examine multiple sections of kidney and liver from all high dosage levels and control animals in the study.

ii. Process and examine all grossly observed "findings" suggestive of possible tumors from all animals in all groups of the study.

4) If the "first tier" examinations do not suggest a potential oncogenic concern, then additional histopathological examinations will not be necessary.

c. A proposed protocol should be submitted to the Agency for comment before the experimental work is initiated.

d. This study is required to be submitted within 50 months from the date of this letter.

Environmental Fate

1. Protocols for Aquatic Dissipation, Forestry, and Irrigated Crops

a. Analytical methods were not included; therefore, a complete assessment cannot be made at this time.

b. Parent compound and the major degradates need to be analyzed.

c. Information noted under Reporting and Evaluation of Data, 164-2, 164-3, 165-3, and 160-5 should be included.

d. The soil and sediment sampling/compositing protocol, and sample storage conditions, should be included for each study.

e. Samples should be taken to sufficient depth to adequately define the extent of leaching.

f. For the aquatic dissipation study, a site representative of a typical rice-growing area should be included.

g. In the irrigated crop study, the sampling of soil at harvest of irrigated crops is not addressed and the referenced field data were not included.

h. In the forestry study, the Instructions for Field Residue Plots (RES-86-GSOP-071-0) were not included.

2. For the photodegradation report FR-258 the spectrum of the light source used should be submitted. This information is required to be submitted within 9 months of the date of this letter.

3. The photodegradation in air is deferred pending the results of the volatility study.

4. The aerobic metabolism study referenced does not fill Guideline requirements. Laboratory experiments should be sufficiently controlled to be able to produce a residue decline curve. The laboratory rate of metabolism is needed as well as the identification of residues. Therefore, an aerobic soil metabolism study must be submitted within 27 months of the date of this letter.

5. When an acceptable anaerobic aquatic metabolism study is submitted, the anaerobic soil metabolism study may be waived.

6. The major problem with the aerobic aquatic metabolism study referenced (MS-0207) was that missing data points as well as the time length was too short to demonstrate the pattern of formation and decline of the degradate MON 0453. Therefore, an aerobic aquatic metabolism study must be submitted 27 months from the date of this letter.

7. No information is available to indicate the study MSL-0207 was carried out under anaerobic conditions. If you have data to support the claim of anaerobic conditions, this information must be submitted within 27 months from the date of this letter. Otherwise, a repeat study must be submitted within the 27 months.

8. Based on the available information, the leaching requirement for glyphosate is satisfied.

9. Copies of the studies cited for the rotational crop accumulation studies and fish accumulation studies should be submitted for review.

10. Field Dissipation

    a. Dissipation of Glyphosate in U.S. Field Soil Following Direct Application of Roundup Herbicide

        1) The portions of this study conducted at the North Dakota (2, 4, and 8 lb ai/A treatments), Illinois (2 and 4 lb ai/A), Indiana (4 and 8 lb ai/A), Ohio (2 lb ai/A), Colorado (sandy loam soil, 4 lb ai/A; loamy sand, 4 and 8 lb ai/A), Texas (2, 4, and 8 lb ai/A); North Carolina (2, 4, and 8 lb ai/A), California (2 lb ai/A), Oklahoma (4 and 8 lb ai/A), Idaho (2 lb ai/A),

Tennessee (2, 4, and 8 lb ai/A), and Kentucky (4 lb ai/A) sites are scientifically sound and provide supplemental information towards the registration of glyphosate.

2) The portions of this study conducted at the Illinois (8 lb ai/A), Colorado (sandy loam, 2 and 8 lb ai/A; loamy sand, 2 lb ai/A), California (4 and 8 lb ai/A), Oklahoma (2 lb/A), Idaho (4 and 8 lb ai/A), Kentucky (2 and 8 lb ai/A), and Florida (2 and 8 lb ai/A) sites are unacceptable because the data were too variable to accurately assess the dissipation of glyphosate in soil.

3) The portions of this study conducted at the Indiana (2 lb ai/A) and Ohio (4 and 8 lb ai/A) sites are unacceptable because insufficient material was present at any sampling interval to establish a residue decline curve.

4) The portion of the study conducted at the Minnesota (2, 4, and 8 lb. ai/A) site is unacceptable because of inadequate sampling intervals.

5) Glyphosate (Roundup, test substance not further characterized), at 2, 4, and 8 lb ai/A, dissipated from the upper 6 inches of clay loam (North Dakota, Illinois, Indiana, Ohio), sandy loam (Texas, North Carolina), sandy clay loam (California), loamy sand (Colorado, loam (Oklahoma), silt loam (Idaho, Indiana), and silty clay loam (Kentucky) soils with a half-life of < 64 days. At the Colorado (sandy loam soil) site, the half-life of glyphosate was 194 to 301 days after the application of Roundup at 4 lb ai/A. At all sites by 1 year post-treatment, glyphosate declined in the 0 to 6 inch soil depth from 0.25 to 3.68 ppm to < 0.05 ppm at the 2 lb ai/A rate, 0.11 to 2.3 ppm to < 0.05 to 0.2 ppm at the 4 lb ai/A rate, and 0.52 to 12.6 ppm to < 0.05 to 0.19 ppm at the 8 lb ai/A rate. Maximum concentrations of the primary degradate, aminomethylphosphonic acid (AMPA) were 0.39, 0.58, and 3.07 ppm at the 2, 4, and 8 lb ai/A rates, respectively. In the 6 to 12 inch soil depth, glyphosate concentrations were < 0.17 ppm and AMPA concentrations were < 0.23 ppm. The degradate N-nitrosoglyphosate was not detected (< 0.02 ppm) at any site.

6) This study does not fulfill EPA data requirements for registering pesticides because the test substance was not completely characterized, the test soils were not completely characterized, field test data were not

provided, no pretreatment samples were taken, and no immediate posttreatment samples were taken at Indiana and Ohio sites.

b. Dissipation of Glyphosate in U.S. Field Soils Following Multiple Applications of Roundup Herbicide

1) This study is unacceptable because either the data were too variable to accurately assess the dissipation of glyphosate in soil, or else the sampling intervals were inadequate to establish the half-life of the test substance.

2) This study does not fulfill EPA data requirements for registering pesticides because the test substance was not characterized, the pattern of formation and decline of degradates was not addressed in the orchard soil study, soil characteristics, including textural analysis, were not reported, field test data were not reported, and storage stability data were not reported.

c. Neither of the studies discussed above satisfy data requirements; therefore, field dissipation studies are required within 27 months of the date of this letter.

11. Forestry Dissipation (Roundup Herbicide Dissipation in Cool Climate Forest Soil and Leaf Litter)

a. This study is scientifically sound and provides supplemental information towards the registration of glyphosate.

b. Glyphosate (Roundup, test substance not further characterized) at 1.7 and 3.4 kg/ha, dissipated with a half-life of < 15 days in leaf litter and in the 0 to 6 cm depth of exposed (nonlitter covered) soil. At 344 days posttreatment, < 3.2 percent of the applied glyphosate remained undegraded in the litter and < 10 percent remained undergraded in the soil. In the 7 to 12 cm soil depth, glyphosate ranged from < 0.5 ppm (detection limit) to 2.73 ppm and was independent of treatment rate. AMPA was < 1.17 ppm in the 0 to 6 cm depth of exposed soil and < 0.05 to 2.06 ppm in the litter treated at 1.7 kg/ha, and < 2.34 ppm in the soil and 0.36 to 6.79 in the litter treated at 3.4 kg/ha; maximum AMPA concentrations in the soil were measured on day 344 (final sampling interval).

c. This study does not fulfill the EPA data requirements for registering pesticides because dissipation of glyphosate in the forest canopy, understory, lakes, and streams was not

addressed; the soil and litter were not sampled deep enough to define the extent of leaching and meteorological data were not provided.

d. Since this study does not fulfill requirements, a repeat study must be submitted within 27 months of the date of this letter.

Fish and Wildlife

1. An Evaluation of the Preemergence Herbicidal Activity of CP-70139

   a. The data submitted satisfy the Guidelines 122-1 Seed Germination/Seedling Emergence requirement.

   b. Glyphosate (CP-70139) applied to soil at up to 10.0 lb ai/A caused < 25 percent effect on the spectrum of monocotyledonae and dicotyledonae plants tested.

   c. Testing at the Tier II level for seed germination/seedling emergence is not required.

2. Vegetative Vigor Testing

   a. Since glyphosate is a broad spectrum herbicide affecting grasses and broadleaf weeds, we assume that a > 25 percent detrimental effect would be observed using the maximum label rate on the 10 species recommended in Subdivision J of the Guidelines. For this reason, Tier I, Vegetative Vigor Testing (122-1) will not be required.

   b. To determine the nontoxic, subtoxic ($LEC_{50}$), and $EC_{50}$ values for glyphosate, Tier II Vegetative Vigor Testing (123-1) will be required. This study is required to be submitted within 9 months of the date of this letter.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

Requires No Mixing

# Roundup® L&G

READY-TO-USE

by Monsanto

## Grass & Weed Killer

- SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION
- KILLS WEEDS AND GRASS, ROOTS AND ALL
- DOES NOT HAVE SOIL ACTIVITY
- SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES, WALKS AND SPOT TREATMENT IN LAWNS

Read the entire label before using this product.

Use only according to label instructions.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

Keep out of reach of children.

CAUTION!

See back panel for Precautionary Statements and Directions for Use.

ACTIVE INGREDIENT:

| | |
|---|---|
| *Isopropylamine salt of glyphosate | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

*Contains N-(phosphonomethyl) glycine

Product protected by U.S. Pat No. 3,799,758 and 4,405,531 Other patents are pending.

® Trademark of Monsanto Company

©MONSANTO COMPANY 1988

NET 24 fl. oz.
(1 pt. 8 oz.)

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

EPA Reg. No. 524-330
897.09-000.11-1

NOT REVIEWED
In Accordance with PR Notice 82-2.
Based on Draft Labeling Dated RS

### PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Keep out of reach of children.

CAUTION! If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

### ENVIRONMENTAL HAZARDS

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water by cleaning of equipment or disposal of wastes.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup® L&G Ready-To-Use herbicide is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE: Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 3 days.

### STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.

G

EPA Est. 56100-LA-01
Superscript corresponds to the first letter of the lot number printed on bottom.
897.09-000.11-2X1

70183 50030

Requires No Mixing

# Roundup® L&G

## READY-TO-USE

by Monsanto

# Grass & Weed Killer

- SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION
- KILLS WEEDS AND GRASS, ROOTS AND ALL
- DOES NOT HAVE SOIL ACTIVITY
- SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES, WALKS AND SPOT TREATMENT IN LAWNS

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Use only according to label instructions.
NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

ACTIVE INGREDIENTS:

| | |
|---|---|
| *Isopropylamine salt of glyphosate | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

*Contains N-(phosphonomethyl) glycine

Keep out of reach of children.

CAUTION! See back panel for Precautionary Statements and Directions for Use.

NET 64 fl. oz. (2 qts.)

® Trademark of Monsanto Company

EPA Reg. No. 524-330

897.09-000.12-1

NOT REVIEWED
In Accordance with PR Notice 82-2.
Based on Draft Labeling Dated RS

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION! If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

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Do not reuse container. Rinse thoroughly before discarding in trash.

Product protected by U.S. Pat No. 3,799,758 and 4,405,531 Other patents are pending.

©MONSANTO COMPANY 1988

© ®

EPA Est 56100—LA-01 524-LA-1

Superscript corresponds to the first letter of the lot number printed on bottom.

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

897 09-000 12-2X2

0 70183 50031 4

# Roundup® L&G

Requires No Mixing

READY-TO-USE

by Monsanto

# Grass & Weed Killer

- SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION
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Product protected by U.S. Pat No. 3,799,758 and 4,405,531 Other patents are pending.

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| | |
|---|---|
| *Isopropylamine salt of glyphosate | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

*Contains N-(phosphonomethyl) glycine

® Trademark of Monsanto Company
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NET 1 GAL

EPA Reg. No. 524-330

897.09-000.13-1

NOT REVIEWED
In Accordance with PR Notice 82-2.
Based on Draft Labeling Dated

RS

## ...IONARY STATEMENTS

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It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup® L&G Ready-To-Use herbicide is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE: Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

### Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.

Ⓖ Ⓛ

EPA Est. 56100—LA-01 524-LA-1

Superscript corresponds to the first letter of the lot number printed on bottom.

897.09-000.13-2X2

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

0 70183 50032 1

126

# SHIPPING CONTAINER PRINTING LAYOUT

897.09-000.14X1

Date_____

Order No._____

Req. No. FEB. 26, 1988

Die Reorder No._____

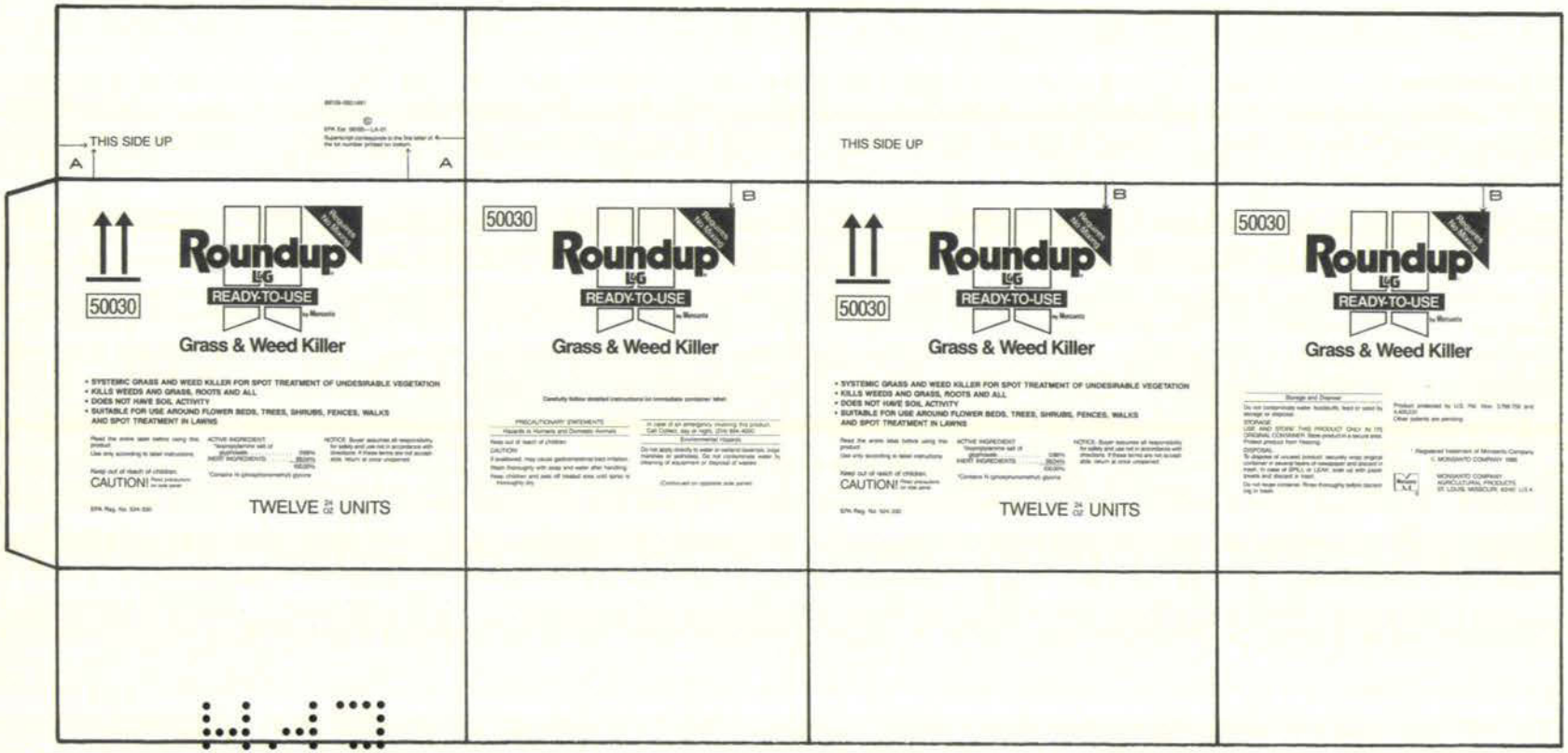
Carton No._____

Ⓖ

EPA Est. 56100—LA-01

Superscript corresponds to the first letter of the lot number printed on bottom.

NOT REVIEWED
In Accordance with FR Notice 83-4
Based on Draft Labeling Dated
PS




A 1" FROM SCORES
B 3/4" FROM SCORES

GCMI 90 BLACK

127

THIS MINIATURE SHOULD
NOT BE FOLLOWED
FOR EXACT SIZE OR COLOR.

OUR RESPONSIBILITY... REPLACEMENT OF DIES ONLY

MASTERS & DIES BY

COSCO GRAPHICS

11548 ADIE ROAD • MARYLAND HEIGHTS, MO. 63043

# SHIPPING CONTAINER PRINTING LAYOUT

Date_____

Order No._____

Req. No. FEB. 26, 1988

Die Reorder No._____

897.09-000.15X2

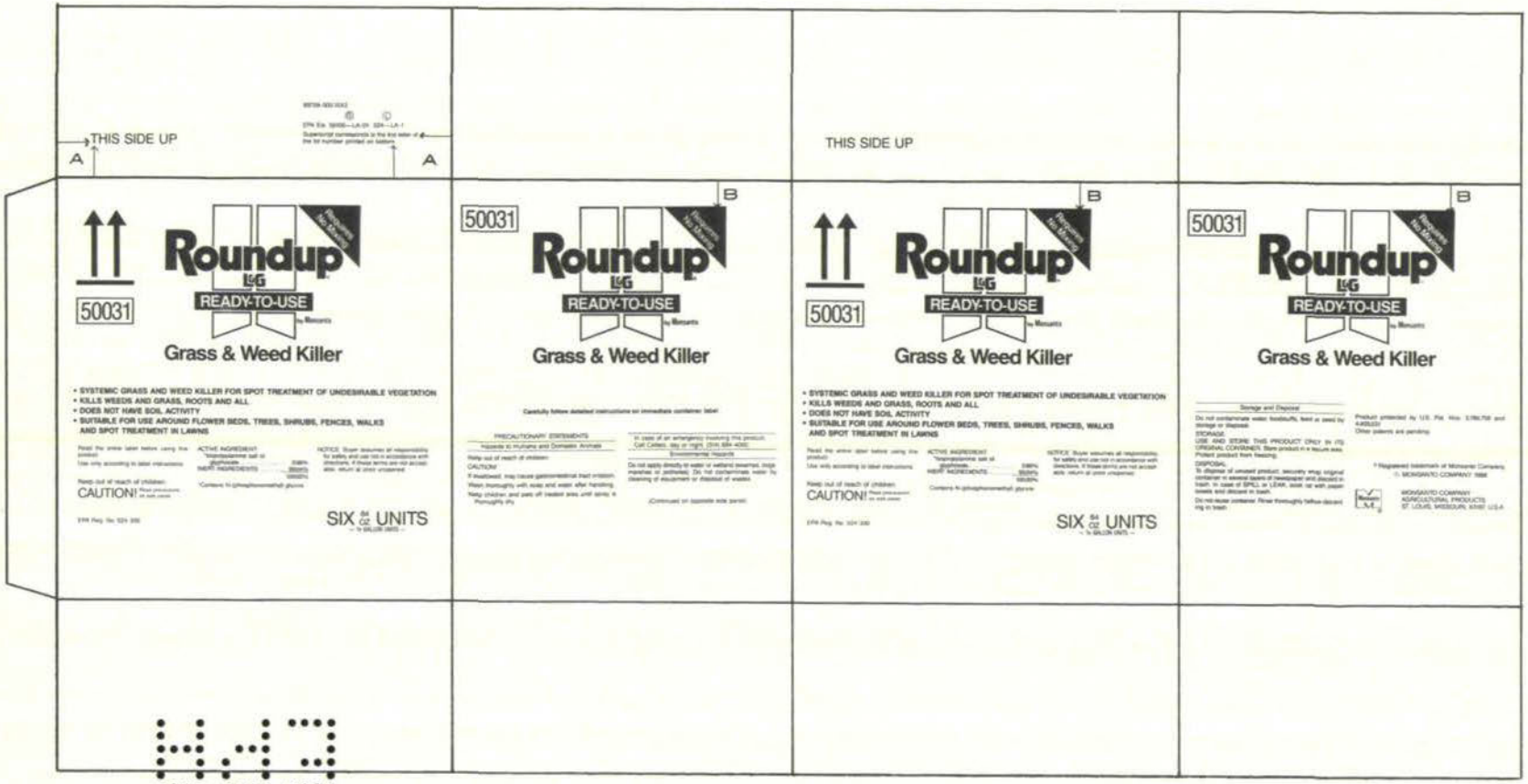
Ⓖ Ⓛ

EPA Est. 56100—LA-01; 524—LA-1

Superscript corresponds to the first letter of the lot number printed on bottom.

Carton No._____

In Accordance with FR Notice 52-2.
Based on Draft Labeling Dated
RS




A 1" FROM SCORES
B 3/4" FROM SCORES

GCMI 90 BLACK

MASTERS & DIES BY

COSCO GRAPHICS

11548 ADIE ROAD • MARYLAND HEIGHTS, MO. 63043

THIS MINIATURE SHOULD NOT BE FOLLOWED FOR EXACT SIZE OR COLOR.

OUR RESPONSIBILITY...REPLACEMENT OF DIES ONLY

# SHIPPING CONTAINER PRINTING LAYOUT

897.09-000.16X2

Date_____

Order No._____

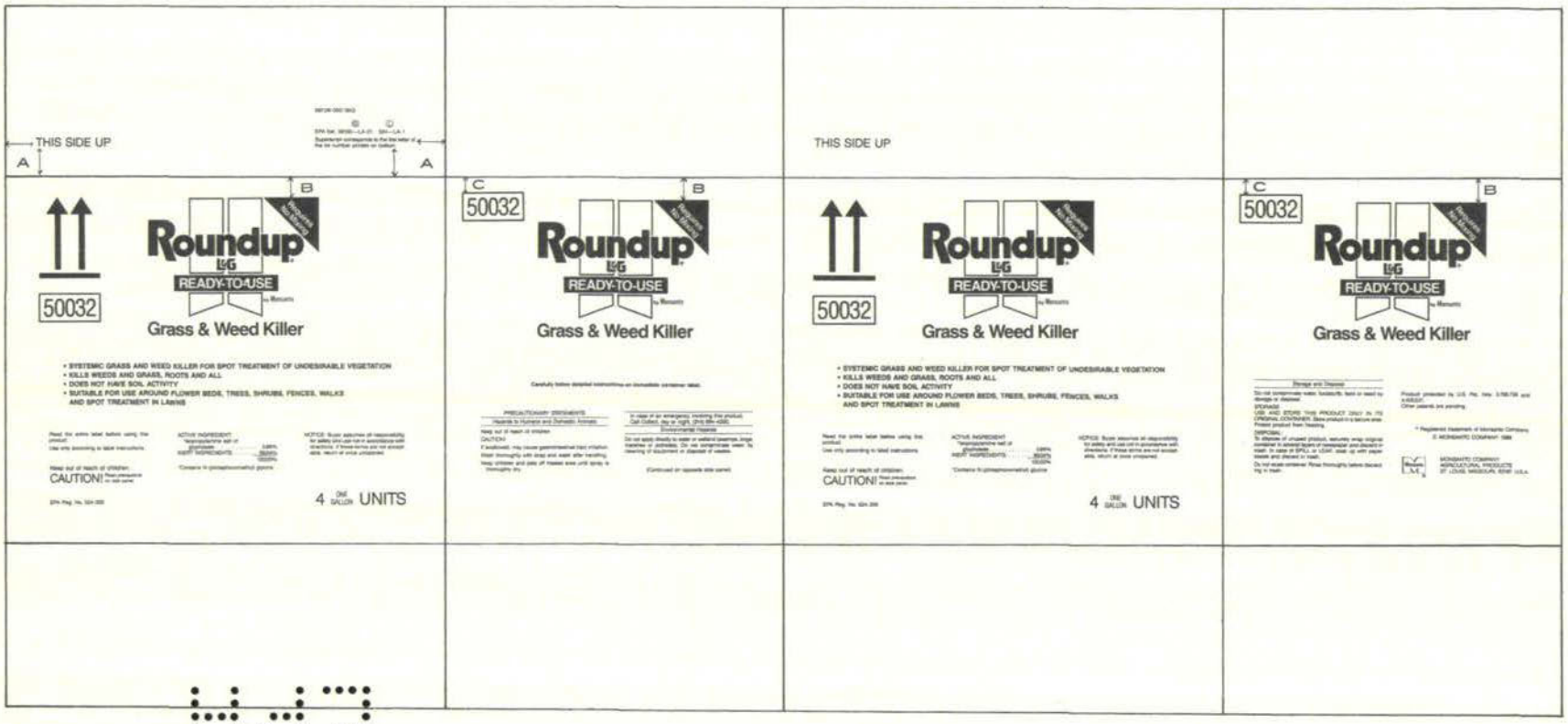
Req. No. FEB. 23, 1988

Die Reorder No._____

EPA Est. 56100—LA-01; 524—LA-1
Superscript corresponds to the first letter of the lot number printed on bottom.

Carton No._____

NOT REVIEWED
In Accordance with PR Notice 82-2
Based on Draft Labeling Dated
R S




A 1" FROM SCORES
B 3/4" FROM SCORES
C 1/2" FROM SCORES

GCMI 90 BLACK

129

THIS MINIATURE SHOULD
NOT BE FOLLOWED
FOR EXACT SIZE OR COLOR.

OUR RESPONSIBILITY... REPLACEMENT OF DIES ONLY

MASTERS & DIES BY

COSCO GRAPHICS

11548 ADIE ROAD • MARYLAND HEIGHTS, MO. 63043

# Monsanto

**MONSANTO AGRICULTURAL COMPANY**
800 N. Lindbergh Boulevard
St. Louis, Missouri 63167
Phone: (314) 694-1000

May 23, 1988

Director
Registration Division (TS767C)
Office of Pesticide Programs
U.S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 726
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup® L&G Ready to Use Herbicide EPA No. 524-330 Submission of 24 oz., 64 oz. and 1 gallon container labels and 12 x 24 oz., 6 x 64 oz., and 4 x 1 gallon box labels.

Dear Sir:

Monsanto is submitting for Agency files, five (5) final printed labels for each of the 24 ounce, the 64 ounce and the 1 gallon containers of Roundup L&G Ready to Use Herbicide. Also being submitted are five (5) copies of authentic miniatures of each of the 12 x 24 ounce, 6 x 64 ounce and 4 x 1 gallon box labels.

These labels comply with the changes in the Environmental Hazards section required by the Glyphosate Registration Standard. Also, the word "New" is removed from the product logo.

If you have any questions or comments, please contact Dr. Kevin Cannon or me.

Sincerely,

Roy G. Danhaus
Senior Registration Specialist

Enclosure

cc: K. F. Cannon

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

March 4, 1988

Director
Registration Division (TS767C)
Office of Pesticide Programs
U.S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 726
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Glyphosate Guidance Document
• Submission of Roundup
L&G Ready-To-Use labels
(EPA Reg. No. 524-330)
for Agency file use.

Dear Sir:

On page 28 of the "Guidance Document For Reregistration of Glyphosate herbicides," the Agency requested the following statement be added to our glyphosate products that are not labeled for aquatic use:

> Do not apply directly to water or wetland (swamps, bogs, marshes, and potholes). Do not contaminate water by cleaning of equipment or disposal of waste.

In compliance with the above Agency request, Monsanto is now submitting (for your file use) Roundup L&G Ready-To-Use (EPA Reg. No. 524-330) labels for our 12 x 24 ounce, 6 x 64 ounce and 4 x 1 gallon box labels. For your use, five (5) copies of each label is enclosed.

Sincerely,

Thomas Armstrong

Thomas F. Armstrong
Registration Manager

cc: K. F. Cannon

:sjh

# SHIPPING CONTAINER PRINTING LAYOUT

Date_____

Order No._____

Req. No. FEB. 26, 1988

Die Reorder No._____

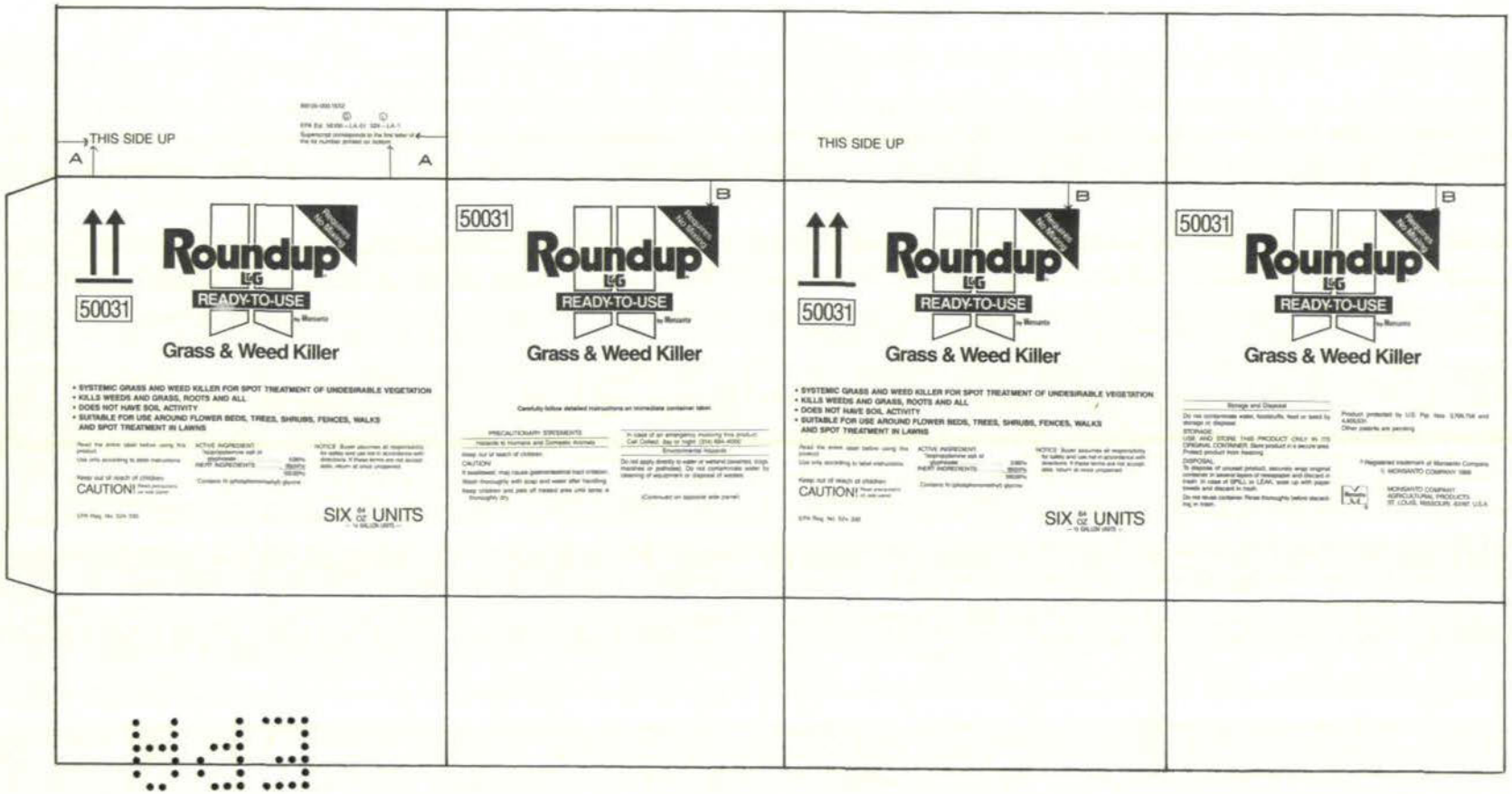
897.09-000.15X2

EPA Est. 56100—LA-01; 524—LA-1

Superscript corresponds to the first letter of the lot number printed on bottom.

Carton No._____

524-330




A 1" FROM SCORES
B 3/4" FROM SCORES

GCMI 90 BLACK

NOT REVIEWED
In Accordance with PR Notice 82-2.
Based on Draft Labeling Dated

THIS MINIATURE SHOULD NOT BE FOLLOWED FOR EXACT SIZE OR COLOR.

OUR RESPONSIBILITY... REPLACEMENT OF DIES ONLY

MASTERS & DIES BY

COSCO GRAPHICS

11548 ADIE ROAD · MARYLAND HEIGHTS, MO. 63043

# SHIPPING CONTAINER PRINTING LAYOUT

897.09-000.14X1

Date_____

Order No._____

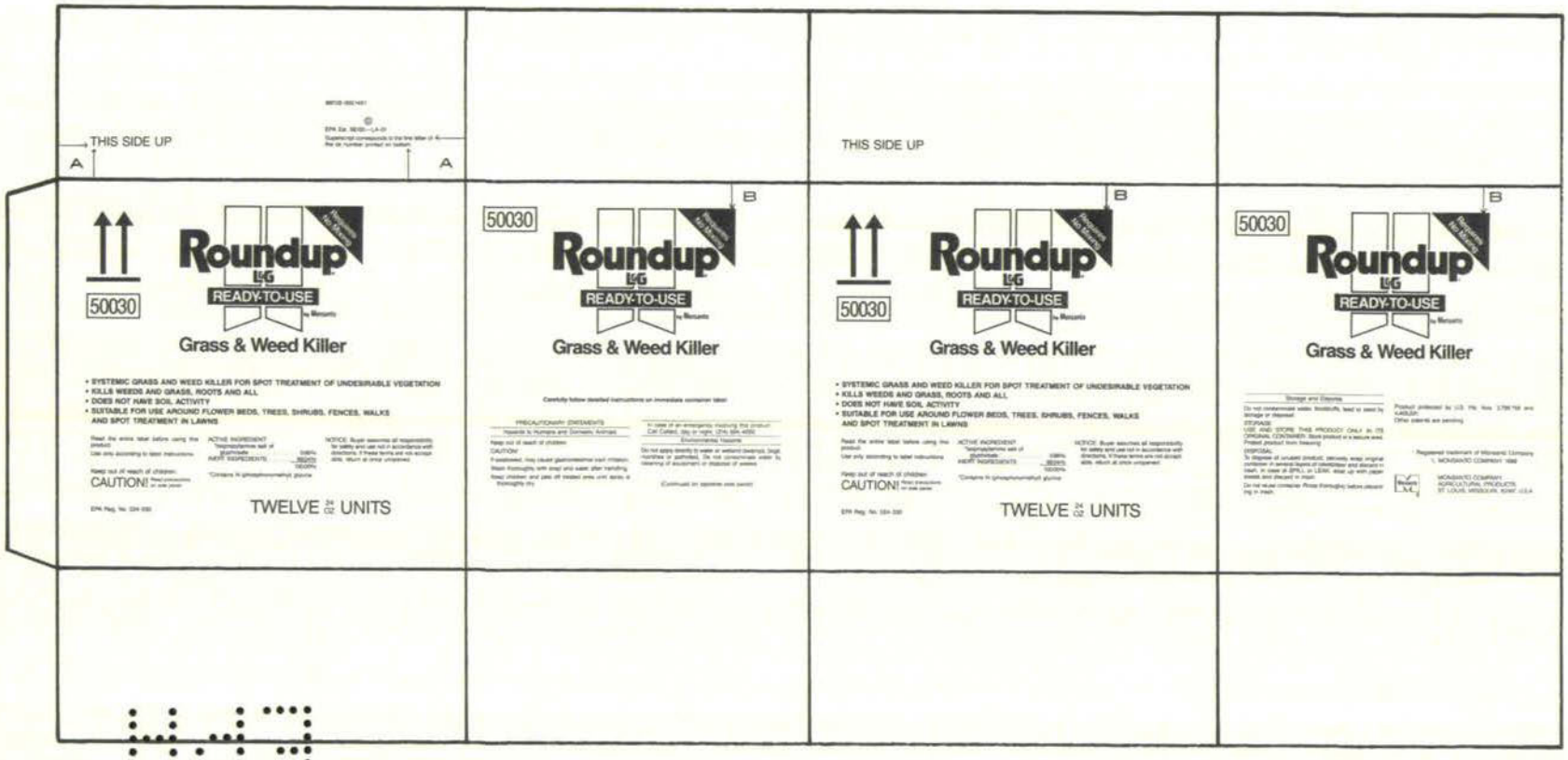
Req. No. FEB. 26, 1988

Die Reorder No._____

EPA Est. 56100—LA-01

Superscript corresponds to the first letter of the lot number printed on bottom.

Carton No._____




A 1" FROM SCORES
B 3/4" FROM SCORES

GCMI 90 BLACK

MASTERS & DIES BY

COSCO GRAPHICS

11548 ADIE ROAD • MARYLAND HEIGHTS, MO. 63043

THIS MINIATURE SHOULD NOT BE FOLLOWED FOR EXACT SIZE OR COLOR.

OUR RESPONSIBILITY... REPLACEMENT OF DIES ONLY

NOT REVIEWED
In Accordance with PR Notice 82-2.
Based on Draft Labeling Dated

# SHIPPING CONTAINER PRINTING LAYOUT

897.09-000.16X2

EPA Est. 56100—LA-01; 524—LA-1
Superscript corresponds to the first letter of the lot number printed on bottom.

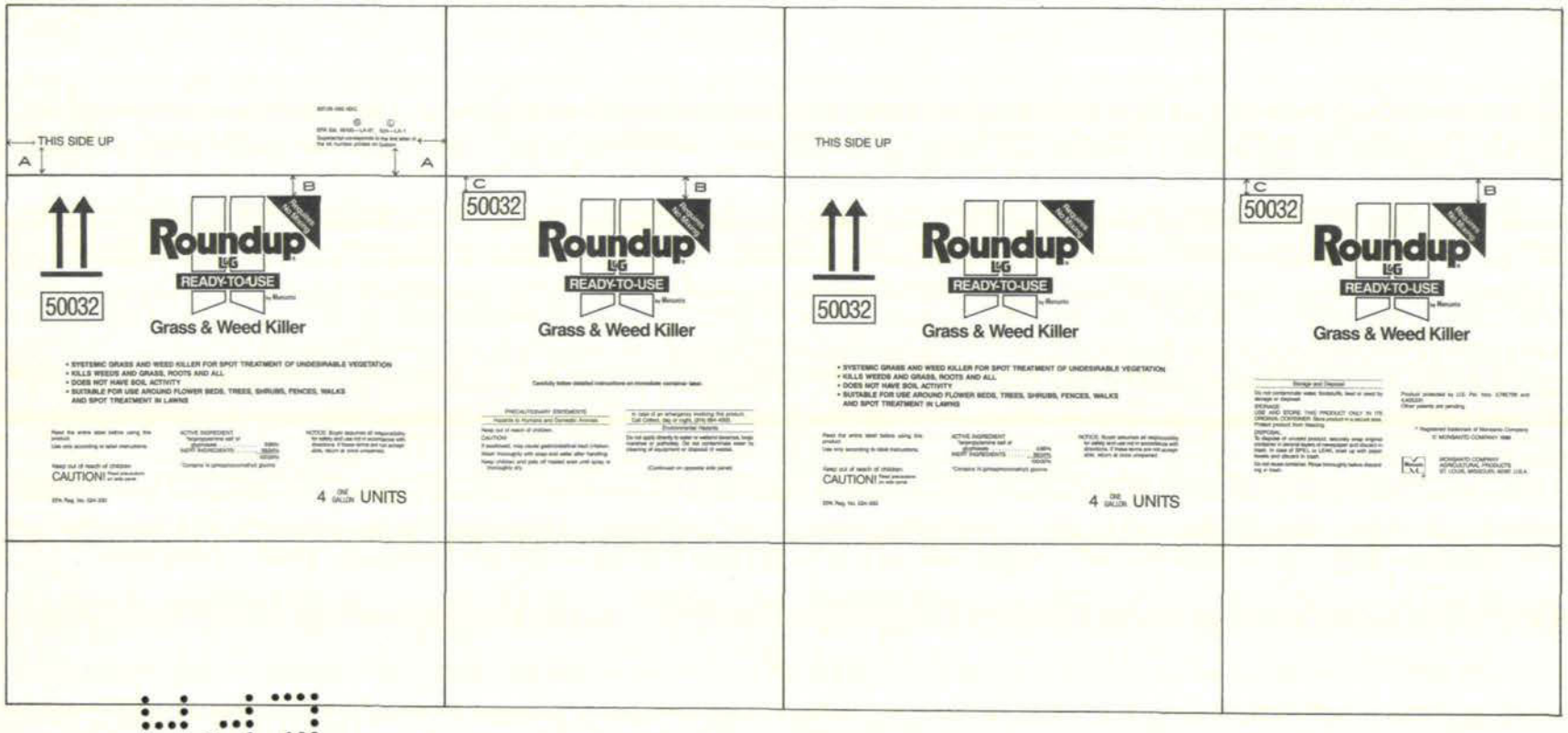
Date_____

Order No._____

Req. No. FEB. 23, 1988

Die Reorder No._____

Carton No._____




A 1" FROM SCORES
B 3/4" FROM SCORES
C 1/2" FROM SCORES

GCMI 90 BLACK

NOT REVIEWED
In Accordance with PR Notice 82-2,
Based on Draft Labeling Dated

THIS MINIATURE SHOULD
NOT BE FOLLOWED
FOR EXACT SIZE OR COLOR.

OUR RESPONSIBILITY...REPLACEMENT OF DIES ONLY

MASTERS & DIES BY

COSCO GRAPHICS

11548 ADIE ROAD • MARYLAND HEIGHTS, MO. 63043

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

September 18, 1987

Director
Registration Division (TS767C)
Office of Pesticide Programs
U.S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 726
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup® L&G Ready-To-Use
EPA Reg. No. 524-330
Final Printed Container Labels

Dear Sir:

On March 23, 1987, the Agency approved our requested name change and label amendments for Roundup® L&G Ready-to-Use (524-330).

Find enclosed for your files five (5) copies of the final printed 1.0 gal, 64 oz. and 24 oz. container and box labels.

If you have any questions with regard to these labels, please contact Lyle Gingerich or me.

Sincerely,

Kevin F. Cannon

Kevin F. Cannon
Senior Registration Specialist

/yd

Enclosure

cc: Lyle L. Gingerich

New! Requires No Mixing

# Roundup L&G®

READY-TO-USE

by Monsanto

## Grass & Weed Killer

- SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION
- KILLS WEEDS AND GRASS, ROOTS AND ALL
- DOES NOT HAVE SOIL ACTIVITY
- SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES, WALKS AND SPOT TREATMENT IN LAWNS

Read the entire label before using this product.

Use only according to label instructions.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

Keep out of reach of children.

**CAUTION!**

See back panel for Precautionary Statements and Directions for Use

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

ACTIVE INGREDIENT

| | |
|---|---|
| *Isopropylamine salt of glyphosate | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

*Contains N-(phosphonomethyl) glycine

Product protected by U.S. Pat. No. 3,799,758 and 4,405,531. Other patents are pending.

® Trademark of Monsanto Company

©MONSANTO COMPANY 1987

NET 24 fl. oz.
(1 pt. 8 oz.)

EPA Reg. No. 524-330
897.09-000.01-1X1

NOT REVIEWED
In accordance with PR Notice 82-2
Based on Draft Labeling Dated 3/23/87

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Keep out of reach of children.

**CAUTION!** If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

#### ENVIRONMENTAL HAZARDS

Do not apply to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup® L&G Ready-To-Use herbicide is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE: Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

#### STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.

Ⓖ

EPA Est. 56100-LA-01
Superscript corresponds to the first letter of the lot number printed on bottom.
897.09-000.01-2X2-

70183 50030

# SHIPPING CONTAINER PRINTING LAYOUT

Date_____

Order No._____

Req. No. JUNE 22, 1987

Die Reorder No._____

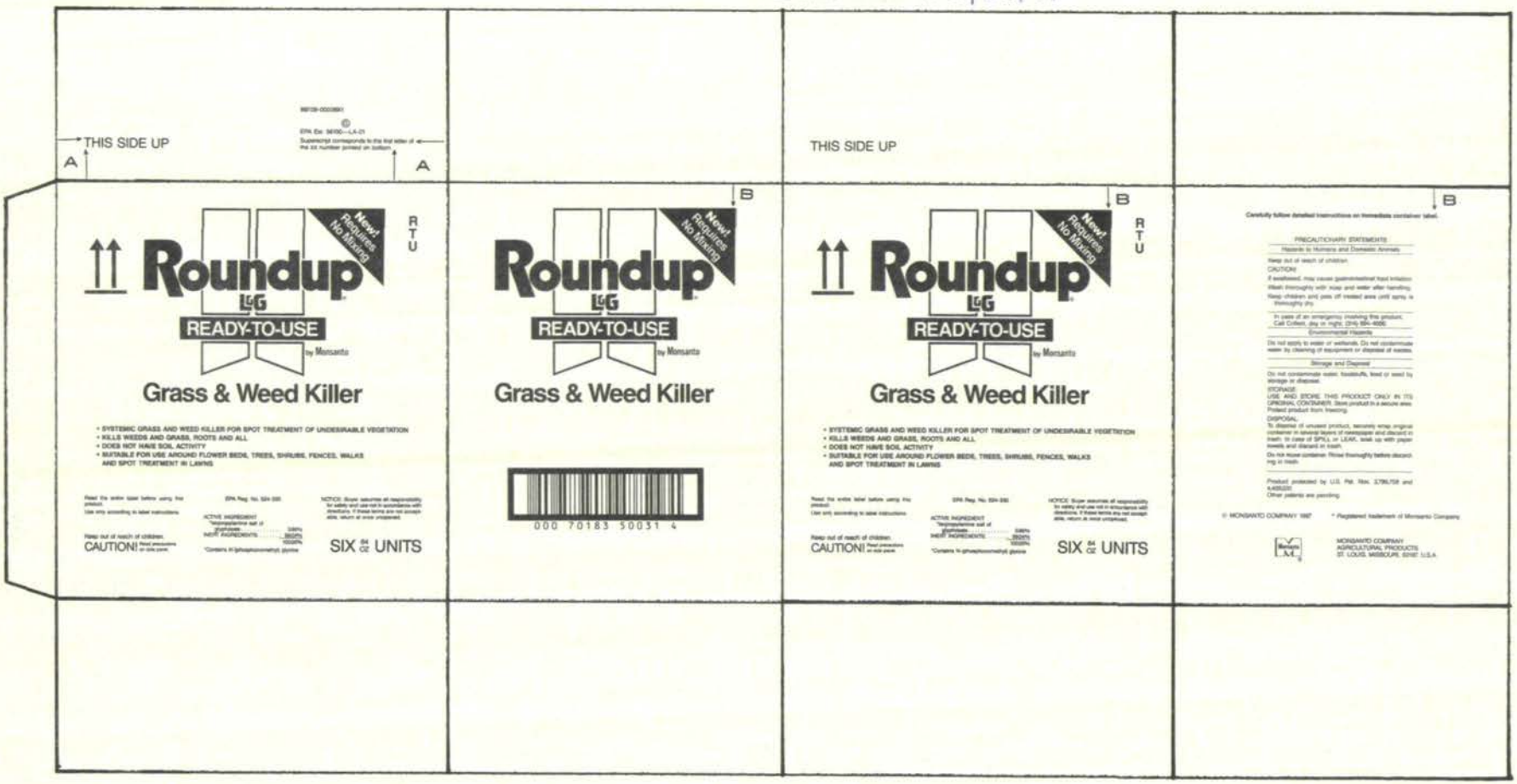
Carton No. 897.09-000.06X1

EPA Est. 56100—LA-01

Superscript corresponds to the first letter of the lot number printed on bottom.

In A[illegible] with [illegible]

Based on Draft Labeling Dated 3/23/87




A 1" FROM SCORES

B 3/4" FROM SCORES

GCMI 90 BLACK

THIS MINIATURE SHOULD NOT BE FOLLOWED FOR EXACT SIZE OR COLOR.

OUR RESPONSIBILITY... REPLACEMENT OF DIES ONLY

MASTERS & DIES BY

COSCO GRAPHICS

11548 ADIE ROAD • MARYLAND HEIGHTS, MO. 63043

# SHIPPING CONTAINER PRINTING LAYOUT

Date_____

Order No. JUNE 22, 1987

Req. No._____

Die Reorder No._____

Carton No._____

EPA Est. 56100—LA-01
Superscript corresponds to the first letter of the lot number printed on bottom.

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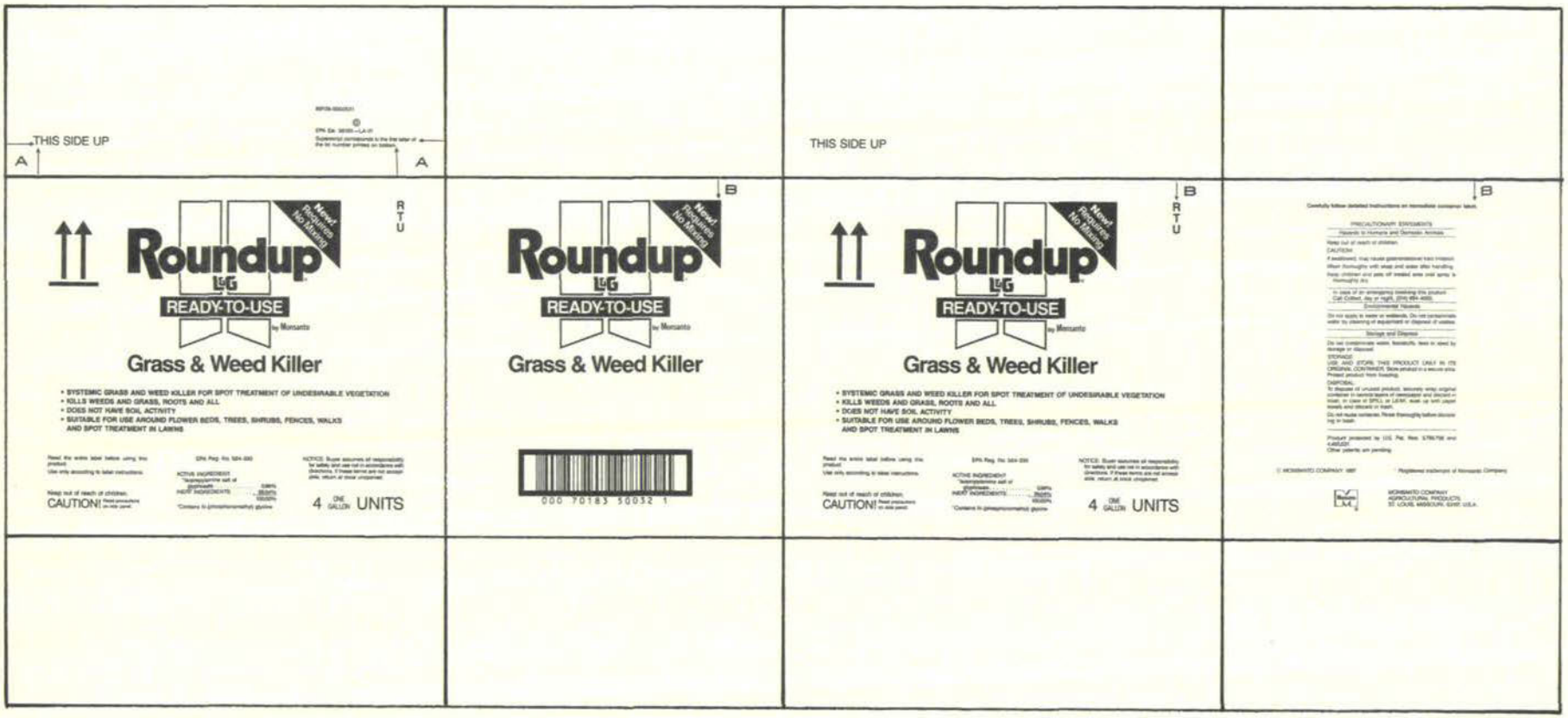
Based on Draft Labeling Dated 3/23/87




A 1" FROM SCORES
B 3/4" FROM SCORES

GCMI 90 BLACK

MASTERS & DIES BY

COSCO GRAPHICS
11548 ADIE ROAD • MARYLAND HEIGHTS, MO. 63043

THIS MINIATURE SHOULD NOT BE FOLLOWED FOR EXACT SIZE OR COLOR.

OUR RESPONSIBILITY... REPLACEMENT OF DIES ONLY

New! Requires No Mixing

# Roundup L&G®

## READY-TO-USE

by Monsanto

# Grass & Weed Killer

- SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION
- KILLS WEEDS AND GRASS, ROOTS AND ALL
- DOES NOT HAVE SOIL ACTIVITY
- SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES, WALKS AND SPOT TREATMENT IN LAWNS

Read the entire label before using this product.
Use only according to label instructions.
NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

ACTIVE INGREDIENTS:
*Isopropylamine salt of glyphosate ..... 0.96%
INERT INGREDIENTS ..... 99.04%
100.00%

*Contains N-(phosphonomethyl) glycine

*Keep out of reach of children.*

**CAUTION!** See back panel for Precautionary Statements and Directions for Use.

NET 64 fl. oz. (2 qts.)

® Trademark of Monsanto Company

EPA Reg. No. 524-330

897 09-000 03-1

NOT REVIEWED
In Accordance with PR Notice 82-8.
Based on Present Labeling Dated 3/23/87

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

Keep out of reach of children.

**CAUTION!** *If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water* after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

### Environmental Hazards

Do not apply to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup® L&G Ready-To-Use herbicide is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE: Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

### Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.

Product protected by U.S. Pat No. 3,799,758 and 4,405,531 Other patents are pending.

©MONSANTO COMPANY 1987

Ⓖ

EPA Est. 56100--LA-01
Superscript corresponds to the first letter of the lot number printed on bottom.

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

897.09-000.03-2X1

0 70183 50031 4

139

# SHIPPING CONTAINER PRINTING LAYOUT

Date_____

Order No._____

Req. No. JUNE 22, 1987

Die Reorder No._____

897.09-000040X1

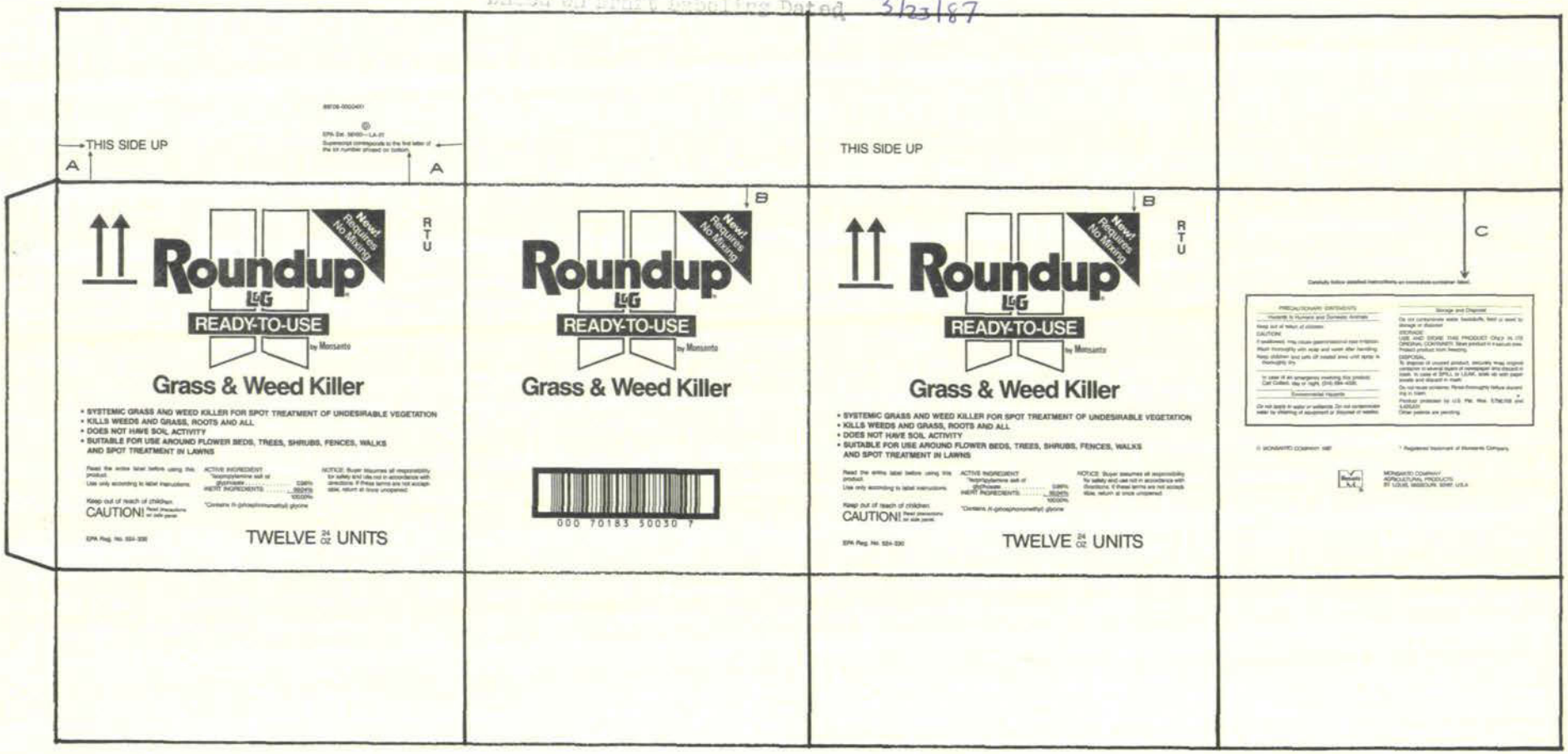
EPA Est. 56100—LA-01

Superscript corresponds to the first letter of the lot number printed on bottom.

140

Carton No._____

NOT REVIEWED
In Accordance with PR Notice 82-2,
Based on Draft Labeling Dated 3/23/87




A 1" FROM SCORES
B 3/4" FROM SCORES
C 2 7/8" FROM SCORE

GCMI 90 BLACK

MASTERS & DIES BY

COSCO GRAPHICS

11548 ADIE ROAD • MARYLAND HEIGHTS, MO. 63043

THIS MINIATURE SHOULD NOT BE FOLLOWED FOR EXACT SIZE OR COLOR.

OUR RESPONSIBILITY... REPLACEMENT OF DIES ONLY

New! Requires No Mixing

# Roundup®

by Monsanto

READY-TO-USE

## Grass & Weed Killer

- **OPEN:** Turn sprayer nozzle to spray.
- **PRIME:** Pump trigger 5-10 times. Never insert sharp object into nozzle.
- **STORE:** Keep out of reach of children. Turn spray nozzle to "OFF" when sprayer is not in use.

To insure long sprayer life—remove from container after each use and clean by pumping water through sprayer for 10 seconds and replace in bottle.

89709-000.07

NOT REVIEWED
In Accordance with PR Notice 82-2.
Based on Draft Labeling Dated 3/23/87

New! Requires No Mixing

# Roundup® L&G

## READY-TO-USE

by Monsanto

# Grass & Weed Killer

# Roundup® L&G

New! Requires No Mixing

## READY-TO-USE

by Monsanto

# Grass & Weed Killer

- SYSTEMIC GRASS AND WEED KILLER FOR SPOT TREATMENT OF UNDESIRABLE VEGETATION
- KILLS WEEDS AND GRASS, ROOTS AND ALL
- DOES NOT HAVE SOIL ACTIVITY
- SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES, WALKS AND SPOT TREATMENT IN LAWNS

Read the entire label before using this product.
Use only according to label instructions.
NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

Keep out of reach of children.

**CAUTION!** See back panel for Precautionary Statements and Directions for Use

Product protected by U.S. Pat No. 3,799,758 and 4,405,531 Other patents are pending.

ACTIVE INGREDIENTS:

| | |
|---|---|
| *Isopropylamine salt of glyphosate | 0.96% |
| INERT INGREDIENTS | 99.04% |
| | 100.00% |

*Contains N-(phosphonomethyl) glycine

® Trademark of Monsanto Company
©MONSANTO COMPANY 1987

NET 1 GAL

EPA Reg. No. 524-330 897.09-000.02-1

In Accordance with PR Notice 82-2, Based on Draft Labeling Dated 3/20/87

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

Keep out of reach of children.

**CAUTION!** If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

### Environmental Hazards

Do not apply to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup® L&G Ready-To-Use herbicide is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occur within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE: Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarter, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: This product is a nonselective weed killer which can injure or kill all vegetation contacted. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

### Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.

Ⓖ
EPA Est. 56100—LA-01
Superscript corresponds to the first letter of the lot number printed on bottom.

897.09-000.02-2X1

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63167 U.S.A.

0 70183 50032 1

| SUBMISSION REVIEW RECORD G | 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED |
|---|---|---|---|
| | 524-330 | | MO 06 DAY 29 YR 87 |
| 3. 3CID PUBLICATION NECESSARY ☐ YES ☐ NO | 4. PETITION NO. | | 5. RECEIVED PM TEAM MO DAY YR |
| 6. METHOD OF SUPPORT ☐ 2A ☐ 2B ☐ 2C | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN MO DAY YR |
| 9. DATE PULLED 8/28/87 / 10. DATE PUBLISHED | 11. ACTION TYPE Labeling based on Standard Ref # 300 | CODE | 12. OUTGOING DATE MO DAY YR |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO | DAY | YR |
|---|---|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | | | |
| | F | PRODUCT MANAGER | | UKW | WAC | 08 | 28 | 87 |
| | G | INTERAGENCY REFERRAL | | | | | | |
| | H | COST-BENEFIT REVIEW | | | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | | | |
| | S | | | | | | | |
| | T | | | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

June 11, 1987

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup® L&G Ready to Use Herbicide
EPA Reg. No. 524-330

Dear Sir:

Monsanto Agricultural Company is submitting proposed label text to comply with the following:

Glyphosate Registration Standard labelling requests.

We have included the proposed text and a label with the areas indicated where these amendments will be located.

We request the Agency to approve these amendments, so that we can comply with dates established by the Agency.

Should you have questions, please feel free to contact us.

Sincerely,

Glynadee Edwards

Glynadee Edwards
Senior Registration Specialist

cc: L. L. Gingerich

Attachment
/yd

SEP 11 1987

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Dear Mr. Cannon:

Subject: Shackle Herbicide (Labeling Based on Registration Standard)
EPA Registration No. 524-330
Your Letter Dated June 11, 1987

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. Please submit five (5) copies of your final printed labeling incorporating these changes before you release the product for shipment. A stamped copy of labeling is enclosed for your records.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

Enclosure

94475:I:Taylor:T-14:KENCO:09/04/87:09/15/87:teg:vo:dg:cb:

CONCURRENCES

| | ORIGIONATOR | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL | TS 767C | | | | | | | |
| SURNAME | VKWallace | | | | | | | |
| DATE | 9/9/87 | | | | | | | |

OFFICIAL FILE COPY

P.2 (1) Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water by cleaning of equipment or disposal of waste.

ACCEPTED

SEP 1 1 1987

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

New
No Mixing
Required

(Product Name/Logo)

ROUNDUP® L & G

HERBICIDE BY MONSANTO

Ready-To-Use

- Systemic grass and weed killer for spot treatment of undesirable vegetation
- Kills weeds and grass, roots and all
- Does not have soil activity
- Suitable for use around flower beds, trees, shrubs, fences, walks and spot treatment in lawns
- Covers approximately _____ square feet

Active Ingredient:

*Isopropylamine salt of glyphosate ..... 0.96%

Inert Ingredients ..... 99.04%

100.00%

ACCEPTED

MAR 23 1987

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

*Contains N-(phosphonomethyl)glycine

Keep out of reach of children.

CAUTION!

See back panel for additional precautionary statements and directions for use.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

NET CONTENTS _____

Read the entire label before using this product. Use only according to label instructions.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Keep out of reach of children.

CAUTION! If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

### ENVIRONMENTAL HAZARDS

1 Do not apply to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup® L&G Ready-To-Use herbicide is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occurs within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE: Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarters, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: THIS PRODUCT IS A NONSELECTIVE WEED KILLER WHICH CAN INJURE OR KILL ALL VEGETATION CONTACTED. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

## STORAGE AND DISPOSAL

Do not contaminate water, feed, seed or foodstuffs by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash. Do not reuse container. Rinse thoroughly before discarding in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.

Roundup® herbicide is protected by U.S. Patent No. 3,799,758 and U.S. Patent No. 4,405,531. Other patents are pending.

®Registered Trademark of Monsanto Company

©Monsanto Company 1987

MONSANTO COMPANY ST. LOUIS, MISSOURI 63167 U.S.A.

EPA Reg. No. 524- EPA Est. No.

UPC BAR CODE

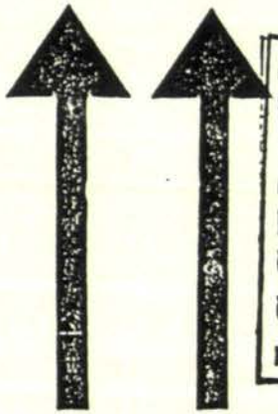
XXX.XX-XXX.XX

Ⓐ Ⓑ Ⓒ

EPA Est. _____, _____, _____

Superscript corresponds to first letter of lot number on box front.

THIS SIDE UP



ACCEPTED

MAR 23 1987

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

NEW NO MIXING REQUIRED

# Roundup® L&G

Herbicide by Monsanto

READY-TO-USE

- Systemic grass and weed killer for spot treatment of undesirable vegetation
- Kills weeds and grass, roots and all
- Does not have soil activity
- Ideal for use around flower beds, trees, shrubs, fences, walks and spot treatment in lawns
- Covers approximately ____ square feet

Read the entire label before using this product.
Use only according to label instructions.

Keep out of reach of children.

CAUTION! Read precautions on side panels.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

EPA Reg. No. 524-____

®Registered trademark of Monsanto Company.

ACTIVE INGREDIENT:
*Isopropylamine salt of glyphosate..... 0.96%
INERT INGREDIENTS:..... 99.04%
100.00%

*Contains N-(phosphonomethyl) glycine

NET UNITS

EPA·PR
6·29·87

(See other side panel for Precautionary Statements)

## Storage and Disposal

Do not contaminate water, feed, seed or foodstuffs by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.

XXX XXXXX XXXXX X

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Monsanto

MONSANTO COMPANY
ST. LOUIS, MISSOURI 63167, U.S.A.

LANGUAGE FOR PLASTIC BAG
CONTAINING SPRAYER NOZZLE.
WILL BE ATTACHED TO 1 GALLON SIZE ONLY.

- o Open: Turn sprayer nozzle to spray.
- o Prime: Pump trigger 10-15 times. Never insert sharp object into nozzle.
- o Store: Keep out of reach of children. Place sprayer nozzle under handle on container so that sprayer is not below level of container contents.

To insure long sprayer life - remove from container after each use and clean by pumping water through sprayer for 10 seconds and replace in bottle.

ACCEPTED
MAR 23 1987
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

SEP 11 1987

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Dear Mr. Cannon:

Subject: Shackle Herbicide (Dermal Sensitization Study)
EPA Registration No. 524-330
Your Letter Dated April 21, 1987

The scientific review and evaluation of the subject data have been completed. The following are our comments/conclusions.

1. The study is classified as Core Guideline data.

2. The Toxicity Category is Nonsensitizing.

3. No precautionary labeling statements are required in regard to dermal sensitization.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

94475:I:Taylor:T-14:KENCO:09/04/87:09/15/87:teg:vo:dg:cb:

CONCURRENCES

| | ORIGINATOR | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL | TS-767C | | | | | | | |
| SURNAME | VKeiller | | | | | | | |
| DATE | 9/9/87 | | | | | | | |

OFFICIAL FILE COPY

| SUBMISSION REVIEW RECORD G | 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED |
|---|---|---|---|
| | 524-330 | | MO 05 DAY 07 YR 87 |
| 3. 3CID PUBLICATION NECESSARY ☐ YES ☐ NO | 4. PETITION NO. | | 5. RECEIVED PM TEAM MO DAY YR |
| 6. METHOD OF SUPPORT ☐ 2A ☐ 2B ☐ 2C | 7. PRODUCT MANAGER Taylor | NO. 25 | 8. PROJECTED RETURN MO DAY YR |
| 9. DATE PULLED 5/27/87 / 10. DATE PUBLISHED | 11. ACTION TYPE Dermal Sensitization Study Rel #4 400 | CODE | 12. OUTGOING DATE MO DAY YR |

| REV SEQ | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO | DAY | YR |
|---|---|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | | | |
| | F | PRODUCT MANAGER | | VKW | | | | |
| | G | INTERAGENCY REFERRAL | | | | | | |
| | H | COST-BENEFIT REVIEW | | | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | | | |
| ✓ | S | TSS/PL | DFH | Delaris F Graham | NAC | 07 | 27 | 87 |
| | T | | | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

JUL 27 1987

SUBJECT: EPA Registration No. 524-330
Shackle

FROM: Deloris F. Graham
Technical Support Section
Fungicide-Herbicide Branch
Registration Division (TS-767C)

E 7/31/87

TO: Robert J. Taylor, PM 25
Fungicide-Herbicide Branch
Registration Division (TS-767C)

APPLICANT: Monsanto Company
1101 17th Street NW.
Washington, DC 20036

ACTIVE INGREDIENTS:
Isopropylamine salt of glyphosate . . . . . 0.96%
INERT INGREDIENTS: . . . . . 99.04%

BACKGROUND:

Submitted Dermal Sensitization Study to support conditional registration of this product. Study conducted by Bio/dynamics, Inc. Data under EPA MRID No. 401894-01. Method of support not indicated.

RECOMMENDATION:

FHB/TSS finds this study acceptable to support conditional registration of this product. The data indicated that this product is not a skin sensitizer.

LABEL:

In regard to dermal sensitization hazard, no precautionary labeling is required.

REVIEW:

(1) Dermal Sensitization Study: Bio/dynamics, Inc.; Study No. B/d No. 4037-86; March 25, 1987; EPA MRID No. 401894-01.

PROCEDURE:

Using the closed patch method, five male and five female guinea pigs each received three (one per week) 0.3 ml applications of undiluted test material during induction. Two weeks after the final induction phase application, a challenge dose was applied to the test group and to a naive control (five male and five female untreated guinea pigs) group. Observations were made at 24 and 48 hours after each application. Historical data reported on positive control, dinitrochlorobenzene.

RESULTS:

No irritation was reported during the induction of the test group or at the challenge of the test group and naive control group. Therefore, it is concluded that a sensitization response was not produced.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: Nonsensitizing.

SEP 11 1987

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Dear Mr. Cannon:

Subject: Roundup L&G Ready to Use (Acute Inhalation Study with Rats)
EPA Registration No. 524-330
Your Letter Dated May 27, 1987

We have your letter of May 27, 1987 transmitting an acute inhalation study in support of the subject registration. Further action will await completion of scientific review and evaluation.

Enclosed is a copy of the "Report of Analysis for Compliance with PR Notice 86-5." Please correct the exceptions noted in future submissions. The Master Record Identification (MRID) Number assigned these data is 40248601.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

Enclosure

94475:I:Taylor:T-14:KENCO:09/04/87:09/15/87:teg:vo:dg:cb:

CONCURRENCES

| | ORIGINATOR | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL | TS-767C | | | | | | | |
| SURNAME | VCWalker | | | | | | | |
| DATE | 9/9/87 | | | | | | | |

OFFICIAL FILE COPY

U. S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs

MONSANTO COMPANY
SUITE 604
1101 17TH ST. N.W.
WASHINGTON, D.C., DC 20036

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your transmittal of 06/29/87. Our staff has completed a preliminary analysis of the material. The results are provided as follows.

Your submittal was found to be substantially in compliance with the standards for submission of data contained in PR Notice 86-5, with the exception(s) noted below. A copy of your bibliography is enclosed, annotated with the Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents, and correct the noted exception(s) in future data submittals. If deficiencies were found which apply to your overall submission, they are described following this paragraph. If the deficiencies apply to specific studies, they are listed below following the applicable identification number or MRID. Thank you for your cooperation.

Any document which has been assigned a MRID has been accepted under PR Notice 86-5. If any comments related to a MRID appear on this report, they are provided for your information and reference when preparing future submissions.

If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

Please include a copy of your transmittal for each copy of your submittal.

Your data submittal does not address a Registration Standard or Special Review, therefore only three copies of your data submittal are necessary to comply with PR Notice 86-5.

EPA Form 8670-20 and EPA FORM 8570-1 should not be used as a transmittal document or a bibliography of the studies submitted in the submittal package.

TRANSMITTAL DOCUMENT

SUBMITTED BY

Monsanto Agricultural Company
800 N. Lindbergh Blvd.
St. Louis, Missouri 63167

REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED

Submission of Acute Inhalation Study with Rats
Roundup L&G Ready-to-Use Herbicide

TRANSMITTAL DATE

May 29, 1987

R.D. NO. 778

LIST OF SUBMITTED DOCUMENTS

40248601 1. Roundup® L&G Ready-to-Use Herbicide: Acute Inhalation Study with Rats
Guideline 81-3

Company Official: Kevin F. Cannon
Senior Registration Specialist

Kevin F. Cannon 5/29/87
Signature

Company Name: MONSANTO AGRICULTURAL COMPANY

Company Contact: Kevin F. Cannon (314) 694-3095

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Mr. Kevin L. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

AUG 28 1987

Dear Mr. Cannon:

Subject: Roundup Herbicide (Reconsideration of Worker Safety Rules)
EPA Registration No. 524-308
MON 0139
EPA Registration No. 524-318
Accord Herbicide
EPA Registration No. 524-326
Shackle Herbicide
EPA Registration No. 524-330
Polado Herbicide
EPA Registration No. 524-332
MON 0139 (62% Solution)
EPA Registration No. 524-333
Shackle C
EPA Registration No. 524-339
Bronco
EPA Registration No. 524-341
Rodeo Herbicide
EPA Registration No. 524-343
Landmaster Herbicide
EPA Registration No. 524-351
Roundup L&G Herbicide
EPA Registration No. 524-370
Landmaster II
EPA Registration No. 524-376
Ranger Herbicide
EPA Registration No. 524-382
Your Letter Dated February 9, 1987

The scientific review and evaluation of the information submitted above have been completed. The following are our comments/conclusions.

1. Based on some of the acute toxicology studies on file and poisoning incidences reported for glyphosate use in California, the Agency concludes that some formulations of glyphosate are eye irritants and possibly skin irritants.

2. To clarify some of the possible confusion in the Registration Standard in regard to worker safety rules, the following statements are required for nonhome use products.

   a. The following statements are required for all glyphosate products that contain the signal word "WARNING" based on either dermal irritation or eye irritation.

      Keep all unprotected persons, children, livestock, and pets away from treated areas or where there is danger of drift.

      Do not rub eyes with hands. See First Aid (Practical Treatment) Section.

      HANDLE THE CONCENTRATE ONLY WHEN WEARING THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT.

      Wear chemical resistant gloves, chemical resistant apron, chemical resistant shoes, shoe coverings, or boots, long sleeve shirt, long legged pants, and a face shield or goggles.

      WEAR THE FOLLOWING PROTECTIVE CLOTHING DURING APPLICATION, EQUIPMENT REPAIR, CLEANING, DISPOSAL OF THE SPRAY SOLUTION, AND DURING REENTRY TO TREATED AREAS BEFORE THE SPRAY HAS DRIED.

      Wear long sleeved shirt, long legged pants, chemical resistant gloves, and a face shield or goggles. A helmet with visor may be worn during open cockpit aerial application.

      Only during application from a tractor with a completely enclosed cab or aerially with an enclosed cockpit will the face shield or goggles and gloves not be required. Chemical resistant gloves must be available in the cab or cockpit and must be worn while exiting.

      IMPORTANT! Before removing gloves, wash them with soap and water. Always wash hands, face and arms with soap and water before smoking, eating, drinking, or toileting.

AFTER WORK, wash protective clothing and equipment with soap and water after each use. Personal clothing worn during use should be laundered separately from household articles. Clothing or protective equipment heavily contaminated or drenched with glyphosate must be disposed of in accordance with State or local regulations.

HEAVILY CONTAMINATED OR DRENCHED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.

b. The following Worker Safety Rules are required for all glyphosate products intended for agricultural uses and containing the signal word "CAUTION."

Keep all unprotected persons, children, livestock, and pets away from treated areas or where there is danger of drift.

When handling this product wear chemical resistant gloves, long sleeve shirt, and long legged pants.

Before removing gloves, wash them with soap and water. Always wash hands, face, and arms with soap and water before smoking, eating, drinking, or toileting.

After work: Wash clothing and gloves with soap and water after each use. Personal clothing worn during use should be laundered separately from household articles. Clothing or protective equipment heavily contaminated or drenched with glyphosate must be disposed of in accordance with State or local regulations. Heavily contaminated or drenched clothing cannot be adequately decontaminated.

Sincerely yours,

VPW

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 28 1987

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Mr. Kevin L. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

yellow

Dear Mr. Cannon:

Subject: Roundup Herbicide (Citrus Fruit Residue Information)
EPA Registration No. 524-308
MON 0139
EPA Registration No. 524-318
Accord Herbicide
EPA Registration No. 524-326
Shackle Herbicide
EPA Registration No. 524-330
Polado Herbicide
EPA Registration No. 524-332
MON 0139 (62% Solution)
EPA Registration No. 524-333
Shackle C
EPA Registration No. 524-339
Bronco
EPA Registration No. 524-341
Rodeo Herbicide
EPA Registration No. 524-343
Landmaster Herbicide
EPA Registration No. 524-351
Roundup L&G Herbicide
EPA Registration No. 524-370
Landmaster II
EPA Registration No. 524-376
Ranger Herbicide
EPA Registration No. 524-382
Your Letter Dated April 10, 1987

The scientific review and evaluation of the subject data have been completed. The following are our comments/conclusions.

1. The calculations to derive whole fruit residues in PP#6G1734 have been satisfactorily clarified.

2. The residue data submitted in PP#6G1734 are adequate to support the citrus fruits group tolerance.

3. The established tolerance of 0.2 ppm for citrus is adequate.

4. The established feed additive tolerance of 0.4 ppm for dried citrus pulp is now considered inadequate. The registrant should submit a feed additive petition proposing that the level be increased to 1.0 ppm, based on available data in PP#6G1734.

5. Concentration of residues has been shown to occur in citrus molasses. A feed additive tolerance of 1.0 ppm should be proposed the processing fraction, citrus molasses at 1.0 ppm.

Further action will await proposal of the requested feed additive tolerances.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

AUG 28 1987

Mr. Kevin L. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

yellow copy

Dear Mr. Cannon:

Subject: Roundup Herbicide (Nontarget Area Aquatic Plant Growth Data)
EPA Registration No. 524-308
MON 0139
EPA Registration No. 524-318
Accord Herbicide
EPA Registration No. 524-326
Shackle Herbicide
EPA Registration No. 524-330
Polado Herbicide
EPA Registration No. 524-332
MON 0139 (62% Solution)
EPA Registration No. 524-333
Shackle C
EPA Registration No. 524-339
Bronco
EPA Registration No. 524-341
Rodeo Herbicide
EPA Registration No. 524-343
Landmaster Herbicide
EPA Registration No. 524-351
Roundup L&G Herbicide
EPA Registration No. 524-370
Landmaster II
EPA Registration No. 524-376
Ranger Herbicide
EPA Registration No. 524-382
Your Letter Dated June 12, 1987

We have your letter of June 12, 1987 transmitting nontarget area aquatic plant growth data on five aquatic species. Further action will await completion of scientific review and evaluation.

The Master Record Identification Numbers assigned the data are as follows:

| | |
|---|---|
| Volume I | 40236901 |
| Volume II | 40236902 |
| Volume III | 40236903 |
| Volume IV | 40236904 |
| Volume V | 40236905 |
| Volume VI | 40236906 |

Sincerely yours,

Robert J. Taylor VKW
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

June 12, 1987

Director
Registration Division (TS767C)
Office of Pesticide Programs
U.S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Glyphosate Guidance Document
Submittal of Nontarget Area
Aquatic Plant Growth Data

Dear Sir:

In the glyphosate registration standard (issued August 11, 1986), the Agency requested (on page 89), that Aquatic Plant Growth Data be submitted per §158.150 Nontarget Plants data requirement 122-2 (Tier 1). In compliance with this request, Monsanto is submitting (under separate cover) five (5) volumes (R.D. 779, 780, 781, 782, 783) of data that were developed per guideline 123-2 (Aquatic Plant Growth, Tier 2).

According to Subdivision J, Nontarget Plants guideline (page 40) portions of Tier 1 (§122-2) test may be combined with the respective parts of the Tier 2 test (§123-2) and performed as one test; therefore, our Monsanto glyphosate data have been developed and submitted per the 123-2 requirements.

The Tier 2 test include the following five (5) aquatic species:

- Selenastastrum capricornutum
- Navicula pelliculosa
- Skeletonema costatum
- Anabaena flos-aquae
- Lemna gibba

We request the Agency assign MRID numbers to the submissions and notify Monsanto of these numbers. If you have any questions concerning this submission, please contact Lyle Gingerich or myself.

Sincerely

Thomas Armstrong

Thomas F. Armstrong
Registration Manager

Attachment

cc: L. L. Gingerich

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

MAY 21 1987

yellow

Dear Mr. Cannon:

Subject: Roundup Herbicide (Request Deletion of Vegetative Vigor Requirement)
EPA Registration No. 524-308
MON 0139, EPA Registration No. 524-318
Accord Herbicide, EPA Registration No. 524-326
Shackle Herbicide, EPA Registration No. 524-330
Polado Herbicide, EPA Registration No. 524-332
MON-0139 (62% Solution), EPA Registration No. 524-333
Shackle C, EPA Registration No. 524-339
Bronco, EPA Registration No. 524-341
Rodeo Herbicide, EPA Registration No. 524-343
Landmaster Herbicide, EPA Registration No. 524-351
Roundup L&G Herbicide, EPA Registration No. 524-370
Landmaster II, EPA Registration No. 524-376
Ranger Herbicide, EPA Registration No. 524-302
Your Letter Dated March 6, 1987

We have your letter of March 6, 1987 transmitting a request for deletion of the Vegetative Vigor Requirement. Further action will await completion of scientific review and evaluation.

Sincerely yours,

VKW

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

yellow

Dear Mr. Cannon:

Subject: Roundup Herbicide (Citrus Fruits Residue Information)
EPA Registration No. 524-308
MON 0139, EPA Registration No. 524-318
Accord Herbicide, EPA Registration No. 524-326
Shackle Herbicide, EPA Registration No. 524-330
Polado Herbicide, EPA Registration No. 524-332
MON-0139 (62% Solution), EPA Registration No. 524-333
Shackle C, EPA Registration No. 524-339
Bronco, EPA Registration No. 524-341
Rodeo Herbicide, EPA Registration No. 524-343
Landmaster Herbicide, EPA Registration No. 524-351
Roundup L&G Herbicide, EPA Registration No. 524-370
Landmaster II, EPA Registration No. 524-376
Ranger Herbicide, EPA Registration No. 524-392
Your Letter Dated April 10, 1987

We have your letter of April 10, 1987, transmitting citrus fruits residue information in support of the subject registrations. Further action will await completion of scientific review and evaluation.

The Master Record Identification (MRID) Number assigned this information is 40159401.

Sincerely yours,

Robert J. Taylor VKW
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

yellow

JUN 24 1987

Dear Mr. Cannon:

Subject: Roundup Herbicide (Reanalysis of Water, Cotton, Soybeans, Pasture Grasses, and Alfalfa)
EPA Registration No. 524-308
MON 0139, EPA Registration No. 524-318
Accord Herbicide, EPA Registration No. 524-326
Shackle Herbicide, EPA Registration No. 524-330
Polado Herbicide, EPA Registration No. 524-332
MON-0139 (62% Solution), EPA Registration No. 524-333
Shackle C, EPA Registration No. 524-339
Bronco, EPA Registration No. 524-341
Rodeo Herbicide, EPA Registration No. 524-343
Landmaster Herbicide, EPA Registration No. 524-351
Roundup L&G Herbicide, EPA Registration No. 524-370
Landmaster II, EPA Registration No. 524-376
Ranger Herbicide, EPA Registration No. 524-392
Your Letter Dated October 14, 1986

We have your letter of October 14, 1986, transmitting a study entitled "Reanalysis of Water, Cotton, Soybeans, Pasture Grasses, Alfalfa and other Legumes for Glyphosate and Aminomethylphosphonic Acid" in support of the subject registrations. Further action will await completion of scientific review and evaluation.

The Accession Number assigned the data is 262896.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

JUN 24 1987

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Dear Mr. Cannon:

yellow

Subject: Roundup Herbicide (Request to Delete Worker Safety Rules from Label)
EPA Registration No. 524-308
MON 0139, EPA Registration No. 524-318
Accord Herbicide, EPA Registration No. 524-326
Shackle Herbicide, EPA Registration No. 524-330
Polado Herbicide, EPA Registration No. 524-332
MON-0139 (62% Solution), EPA Registration No. 524-333
Shackle C, EPA Registration No. 524-339
Bronco, EPA Registration No. 524-341
Rodeo Herbicide, EPA Registration No. 524-343
Landmaster Herbicide, EPA Registration No. 524-351
Roundup L&G Herbicide, EPA Registration No. 524-370
Landmaster II, EPA Registration No. 524-376
Ranger Herbicide, EPA Registration No. 524-382
Your Letter Dated February 9, 1987

We have your letter of February 9, 1987, transmitting a report entitled "Irritation, Sensitization, Photoirritation, and Photosensitization Assays with Glyphosate Herbicide" in support of a request to delete the worker safety rules labeling. Further action will await completion of scientific review and evaluation.

The Master Record Identification (MRID) Number assigned this study is 40085601.

Sincerely yours,

Robert J. Taylor VKW
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

JUN 24 1987

yellow

Dear Mr. Cannon:

Subject: Roundup Herbicide (Seed Germination/Seedling Emergence Study)
EPA Registration No. 524-308
MON 0139, EPA Registration No. 524-318
Accord Herbicide, EPA Registration No. 524-326
Shackle Herbicide, EPA Registration No. 524-330
Polado Herbicide, EPA Registration No. 524-332
MON-0139 (62% Solution), EPA Registration No. 524-333
Shackle C, EPA Registration No. 524-339
Bronco, EPA Registration No. 524-341
Rodeo Herbicide, EPA Registration No. 524-343
Landmaster Herbicide, EPA Registration No. 524-351
Roundup L&G Herbicide, EPA Registration No. 524-370
Landmaster II, EPA Registration No. 524-376
Ranger Herbicide, EPA Registration No. 524-382
Your Letter Dated April 10, 1987

We have your letter of April 10, 1987, transmitting Plant Protection data (Seed Germination/Seedling Emergence) in support of the subject registrations. Further action will await completion of scientific review and evaluation.

The Master Record Identification (MRID) Number assigned this study is 40159301.

Sincerely yours,

Robert J. Taylor VKW
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

yellow

JUN 24 1987

Dear Mr. Cannon:

Subject: Roundup Herbicide (Additional Information on Mouse Oncogenicity Study)
EPA Registration No. 524-308
MON 0139, EPA Registration No. 524-318
Accord Herbicide, EPA Registration No. 524-326
Shackle Herbicide, EPA Registration No. 524-330
Polado Herbicide, EPA Registration No. 524-332
MON-0139 (62% Solution), EPA Registration No. 524-333
Shackle C, EPA Registration No. 524-339
Bronco, EPA Registration No. 524-341
Rodeo Herbicide, EPA Registration No. 524-343
Landmaster Herbicide, EPA Registration No. 524-351
Roundup L&G Herbicide, EPA Registration No. 524-370
Landmaster II, EPA Registration No. 524-376
Ranger Herbicide, EPA Registration No. 524-382
Your Letter Dated January 27, 1987

We have your letter of January 27, 1987, transmitting additional information on the mouse oncogenicity study. Further action will await completion of scientific review and evaluation.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

yellow

Dear Mr. Cannon:

Subject: Roundup Herbicide (90-Day Response and Forms)
EPA Registration No. 524-308
MON 0139, EPA Registration No. 524-318
Accord Herbicide, EPA Registration No. 524-326
Shackle Herbicide, EPA Registration No. 524-330
Polado Herbicide, EPA Registration No. 524-332
MON-0139 (62% Solution), EPA Registration No. 524-333
Shackle C, EPA Registration No. 524-339
Bronco, EPA Registration No. 524-341
Rodeo Herbicide, EPA Registration No. 524-343
Landmaster Herbicide, EPA Registration No. 524-351
Roundup L & G Herbicide, EPA Registration No. 524-370
Landmaster II, EPA Registration No. 524-376
Ranger Herbicide, EPA Registration No. 524-382
Your Letter of November 7, 1986

We have your submission of November 7, 1986, transmitting comments on the Standard and other 90-day requirements for the subject products. The submitted Confidential Statements of Formula and FIFRA section 3(c)(2)(B) summary sheets have been added to the files.

Further action will await completion of scientific review and evaluation.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

JUN 24 1987

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Dear Mr. Cannon:

Subject: Roundup Herbicide (Soil Dissipation)
EPA Registration No. 524-308
MON 0139, EPA Registration No. 524-318
Accord Herbicide, EPA Registration No. 524-326
Shackle Herbicide, EPA Registration No. 524-330
Polado Herbicide, EPA Registration No. 524-332
MON-0139 (62% Solution), EPA Registration No. 524-333
Shackle C, EPA Registration No. 524-339
Bronco, EPA Registration No. 524-341
Rodeo Herbicide, EPA Registration No. 524-343
Landmaster Herbicide, EPA Registration No. 524-351
Roundup L&G Herbicide, EPA Registration No. 524-370
Landmaster II, EPA Registration No. 524-376
Ranger Herbicide, EPA Registration No. 524-392
Your Letters Dated August 6 and August 7, 1986

We have your letters of August 6 and August 7, 1986, transmitting soil dissipation information in support of the subject herbicides. Further action will await completion of scientific review and evaluation. The Accession Numbers assigned the data are as follows:

| | |
|---|---|
| Direct Application to Soil | 264332 |
| Forest Soils and Multiple Applications | 264343 |

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

# Monsanto

Monsanto Company
1101 17th Street, N.W.,
Washington, D.C. 20036
Phone: (202) 452-8880

August 7, 1986

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup® Herbicide
EPA Reg. No. 524-308
Glyphosate Soil Dissipation Information
- Forest Soils
- Multiple Applications

Dear Sir:

Roundup herbicide has been registered by the Agency since 1974. Monsanto is continually conducting research on Roundup. As a result of these research efforts, Monsanto is submitting for your file use, the following two (2) soil dissipation studies (R.D. No. 697) as additional data to support our Roundup registration:

1. Roundup® Herbicide Dissipation In Cool Climate Forest Soil and Leaf Litter (MSL-2950)

2. Dissipation of Glyphosate In U.S. Field Soils Following Multiple Application of Roundup® Herbicide (MSL-3352).

We request that the Agency let us know the accession number under which this submission is filed. If you have questions or comments about this submission, please contact Lyle Gingerich or myself.

Sincerely,

Tom Armstrong

Thomas F. Armstrong
Registration Manager

/pt
Enclosures

cc: L. L. Gingerich

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

August 6, 1986

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup® Herbicide
EPA Reg. No. 524-308
Glyphosate Soil Dissipation Information
• Direct Application to Soil

Dear Sir:

Roundup herbicide has been registered by the Agency since 1974. Monsanto is continually conducting research on Roundup. As a result of these research efforts, Monsanto is submitting for your file use, the "Dissipation of Glyphosate In U.S. Field Soils Following Direct Applications of Roundup® Herbicide" study (R.D. No. 696).

These data show the average half-life for dissipation of glyphosate in U.S. field soils is generally six (6) weeks or less, and the average time required for dissipation of 90% of the observed initial glyphosate in soils is less than four (4) months.

We request that the Agency let us know the accession number under which this submission is filed. If you have questions or comments about this submission, please contact Lyle Gingerich or myself.

Sincerely,

Tom Armstrong

Thomas F. Armstrong
Registration Manager

/pt
Enclosures

cc: L. L. Gingerich

JUN -3 1987

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Dear Mr. Cannon:

Subject: Roundup L&G Ready-to-Use (Dermal Sensitization Study)
EPA Registration No. 524-330
Your Letter Dated April 21, 1987

We have your letter of April 21, 1987 transmitting a dermal sensitization study in support of the subject registration. Further action will await completion of scientific review and evaluation. The Master Record Identification Number is 401894-01.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

91059:I:Taylor:T-12:KENCO:5/28/87:6/6/87:NeeCee:vo:sjh:ek:ron:

CONCURRENCES

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL ▶ | TS 767C | | | | | | | |
| SURNAME ▶ | UXWalker | | | | | | | |
| DATE ▶ | 6/3/87 | | | | | | | |

EPA Form 1320-1 (4-81)

OFFICIAL FILE COPY

# Monsanto

**MONSANTO AGRICULTURAL COMPANY**
800 N. Lindbergh Boulevard
St. Louis, Missouri 63167
Phone: (314) 694-1000

April 21, 1987

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup L&G Ready-to-Use
Herbicide (EPA Reg. No. 524-330)
Dermal Sensitization Study
in Guinea Pigs 401894-01

Dear Sir:

On March 23, 1987 the EPA stamped and approved Monsanto's request for a name change and label amendments for Roundup L&G Ready-to-Use herbicide (EPA Reg. No. 524-330). Roundup L&G Ready-to-Use is a convenient ready-to-use formulation of glyphosate containing 0.96% isopropylamine salt. The enclosed Dermal Sensitization study is a single volume report and has been assigned the report number R.D. 770.

This dermal sensitization study will add to the current acute toxicological data base now on file with the Agency for the ready-to-use glyphosate formulation. Results of this study determined that Roundup L&G Ready-to-Use exhibited no potential to produce dermal sensitization in Guinea Pigs.

We request the Agency to treat the information contained in this letter and submitted study as trade secret and/or confidential proprietary information.

If you have any questions regarding this submission please contact Lyle Gingerich or me.

Sincerely,

Kevin F. Cannon

Kevin F. Cannon
Senior Registration Specialist

/bj
cc: L.L. Gingerich



a unit of Monsanto Company

U. S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs

MONSANTO COMPANY
SUITE 604
1101 17TH ST. N.W.
WASHINGTON, D.C., DC 20036

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your transmittal of 05/07/87. Our staff has completed a preliminary analysis of the material. The results are provided as follows.

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 86-5. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation.

If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

TRANSMITTAL DOCUMENT

SUBMITTED BY

Monsanto Agricultural Company
800 N. Lindbergh Blvd.
St. Louis, Missouri 63167

REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED

Submission of Dermal Sensitization Study in Guinea Pigs
Roundup L&G Ready-to-Use
EPA Reg. No. 524-330

TRANSMITTAL DATE

April 18, 1987

R.D. No. 770

LIST OF SUBMITTED DOCUMENTS

40189401

1. Roundup L&G Ready-to-Use: Dermal Sensitization Study in Guinea Pigs Guideline 81-6

COMPANY OFFICIAL: Kevin F. Cannon
Senior Registration Specialist

Kevin F. Cannon
Signature

COMPANY NAME: MONSANTO AGRICULTURAL COMPANY

COMPANY CONTACT: Kevin F. Cannon (314) 694-3095

JUN - 3 1987

Mr. Kevin F. Cannon
Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Dear Mr. Cannon:

Subject: Shackle Herbicide (Acute Dermal Toxicity)
EPA Registration No. 524-330
Your Letter Dated October 9, 1986

The scientific review and evaluation of the study submitted above have been completed. The following are our comments/conclusions.

1. The $LD_{50}$ is reported to be greater than 5000 milligrams/kilogram.

2. This study is classified as Core Guideline data.

3. The Toxicity Category is IV - CAUTION.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

91059:I:Taylor:T-12:KENCO:5/28/87,6/6/87:NeeCee:vo:sjh:ek:ron:

CONCURRENCES

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL ▶ | TS767C | | | | | | | |
| SURNAME ▶ | VKWalker | | | | | | | |
| DATE ▶ | 6/3/87 | | | | | | | |

EPA Form 1320-1 (4-81)

OFFICIAL FILE COPY

**SUBMISSION REVIEW RECORD** G

| 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED (MO / DAY / YR) |
|---|---|---|
| 524-330 | | 010 / 14 / 86 |

| 3. 3CID PUBLICATION NECESSARY | 4. PETITION NO. | 5. RECEIVED PM TEAM (MO / DAY / YR) |
|---|---|---|
| ☐ YES ☐ NO | | |

| 6. METHOD OF SUPPORT | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN (MO / DAY / YR) |
|---|---|---|---|
| ☐ 2A ☐ 2B ☐ 2C | Taylor | 25 | 05 / 18 / 87 |

| 9. DATE PULLED | 10. DATE PUBLISHED | 11. ACTION TYPE | CODE | 12. OUTGOING DATE (MO / DAY / YR) |
|---|---|---|---|---|
| 3/18/87 | | acute dermal Toxicity Study RJ #4 400 | | 03 / 18 / 87 |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO | DAY | YR |
|---|---|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | | | |
| | F | PRODUCT MANAGER | | VICW | | | | |
| | G | INTERAGENCY REFERRAL | | | | | | |
| | H | COST-BENEFIT REVIEW | | | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | | | |
| ✓ | S | TS/PCL | DJW | Delores J. Graham | | 015 | 19 | 87 |
| | T | | | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

MAY 19 1987

SUBJECT: EPA Registration No. 524-330
Shackle Herbicide

FROM: Deloris F. Graham DFG 5/26/87 TE 5/26/87
Technical Support Section
Fungicide-Herbicide Branch
Registration Division (TS-767C)

TO: Robert J. Taylor, PM 25
Fungicide-Herbicide Branch
Registration Division (TS-767C)

APPLICANT: Monsanto Company
1101 17th Street NW.
Washington, DC 20036

ACTIVE INGREDIENT:
Isopropylamine salt of glyphosate . . . . . 0.96%
INERT INGREDIENT: . . . . . 99.04%

BACKGROUND:

Submitted Acute Dermal Toxicity Study under Agency miscellaneous data code (400). Study conducted by Bio/Dynamics, Inc. Data under Accession No. 265535. Method of support not indicated.

RECOMMENDATION:

FHB/TSS finds this data acceptable to support conditional registration of this product.

LABEL:

No labeling required in regards to acute dermal toxicity hazard.

REVIEW:

(1) Acute Dermal Toxicity Study: Bio/Dynamics, Inc.; Project No. 5363-84; March 25, 1985.

PROCEDURE:

Five male and five female rabbits with intact skin sites each received a 5000 mg/kg dose dermally. Treated sites were placed under occlusive wrap for 24 hour exposure period. Observations made for 14 days posttreatment. Necropsy performed on all animals.

RESULTS:

No mortalities reported. Toxic signs reported included nasal discharge and red eyes in some animals. Necropsy report revealed reddened, swollen uterus in some females. $LD_{50}$ reported to be greater than 5000 mg/kg.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: IV - CAUTION.

MAR 23 1987

Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Attention: Kevin F. Cannon

Gentlemen:

Subject: Shackle Herbicide (Name Approval and Revised Labels)
EPA Registration No. 524-330
Your Letter Dated October 28, 1986

The registration record for the product named above has been amended to include the additional product name "Roundup L & G Ready-To-Use."

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

Enclosure

91045:Taylor:T-3:KENCO:3/19/87:3/30/87:TAR:VO:EK:NeeCee

CONCURRENCES

| | ORIGINATOR | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL | TS-767C | | | | | | | |
| SURNAME | VICWalters | | | | | | | |
| DATE | 3/23/87 | | | | | | | |

OFFICIAL FILE COPY

LANGUAGE FOR PLASTIC BAG
CONTAINING SPRAYER NOZZLE.
WILL BE ATTACHED TO 1 GALLON SIZE ONLY.

- Open: Turn sprayer nozzle to spray.
- Prime: Pump trigger 10-15 times. Never insert sharp object into nozzle.
- Store: Keep out of reach of children. Place sprayer nozzle under handle on container so that sprayer is not below level of container contents.

To insure long sprayer life - remove from container after each use and clean by pumping water through sprayer for 10 seconds and replace in bottle.

ACCEPTED
MAR 23 1987
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

New
No Mixing
Required

(Product Name/Logo)

ROUNDUP® L & G

HERBICIDE BY MONSANTO

Ready-To-Use

- Systemic grass and weed killer for spot treatment of undesirable vegetation
- Kills weeds and grass, roots and all
- Does not have soil activity
- Suitable for use around flower beds, trees, shrubs, fences, walks and spot treatment in lawns
- Covers approximately _____ square feet

Active Ingredient:

*Isopropylamine salt of glyphosate ..... 0.96%

Inert Ingredients ..... 99.04%

100.00%

ACCEPTED

MAR 23 1987

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

*Contains N-(phosphonomethyl)glycine

Keep out of reach of children.

CAUTION!

See back panel for additional precautionary statements and directions for use.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

NET CONTENTS _____

Read the entire label before using this product. Use only according to label instructions.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Keep out of reach of children.

CAUTION! If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

### ENVIRONMENTAL HAZARDS

Do not apply to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Roundup® L&G Ready-To-Use herbicide is a nonselective grass and weed killer which, when absorbed by contacted foliage, is carried throughout the stems and roots to give complete kill of tough annual and perennial grasses and broadleaf weeds. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. It is formulated for "spot" application to kill individual weeds around trees, shrubs, fences, patios, walks and in flower gardens and lawns. Yellowing and wilting usually occurs within one week with a complete kill in 2 to 4 weeks. For best results, apply to actively growing plants in warm sunny weather.

HOW TO USE: Adjust the nozzle to a coarse spray. Position sprayer tip approximately 1-2 feet from the weed and apply to completely cover the weed, stopping just before the spray begins to drip or run off. One application will control most listed weeds. If certain hard-to-control weeds are not completely killed within 4 weeks, repeat application. Treated areas in lawns can be reseeded 7 or more days after application.

WEEDS CONTROLLED: Bahiagrass, Barnyardgrass, Bermudagrass, Blackberries, Canada Thistle, Chickweed, Common Ragweed, Crabgrasses, Dandelion, Fescues, Field Bindweed, Field Sandbur, Foxtail, Johnsongrass, Kentucky Bluegrass, Lambsquarters, Orchardgrass, Perennial Ryegrass, Poison Ivy, Poison Oak, Quackgrass, Red Clover, Shepherdspurse, Smooth Bromegrass, Sowthistle, White Clover and Yellow Nutsedge.

IMPORTANT: THIS PRODUCT IS A NONSELECTIVE WEED KILLER WHICH CAN INJURE OR KILL ALL VEGETATION CONTACTED. AVOID SPRAY CONTACT ON DESIRABLE PLANTS. APPLY ONLY WHEN THE AIR IS CALM. If spray or drift accidentally contacts desirable vegetation, wash off immediately with water. Do not apply when rainfall is expected within 24 hours. Avoid mowing, cutting or otherwise disturbing treated vegetation for at least 7 days.

## STORAGE AND DISPOSAL

Do not contaminate water, feed, seed or foodstuffs by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash. Do not reuse container. Rinse thoroughly before discarding in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.

Roundup® herbicide is protected by U.S. Patent No. 3,799,758 and U.S. Patent No. 4,405,531. Other patents are pending.

®Registered Trademark of Monsanto Company

©Monsanto Company 1987

MONSANTO COMPANY ST. LOUIS, MISSOURI 63167 U.S.A.

EPA Reg. No. 524- EPA Est. No.

UPC BAR CODE

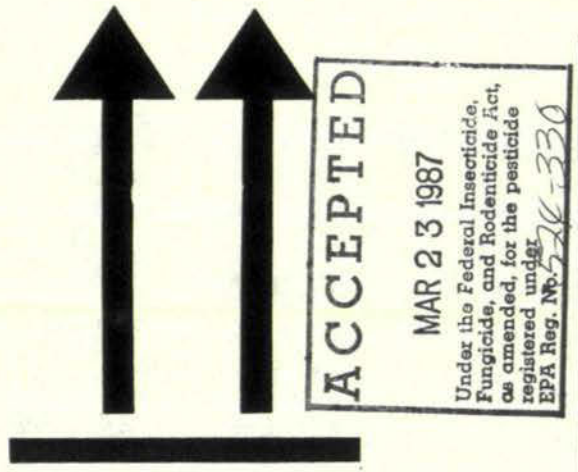
XXX.XX-XXX.XX

Ⓐ Ⓑ Ⓒ

EPA Est. _____, _____, _____

Superscript corresponds to first letter of lot number on box front.

THIS SIDE UP



- Systemic grass and weed killer for spot treatment of undesirable vegetation
- Kills weeds and grass, roots and all
- Does not have soil activity
- Ideal for use around flower beds, trees, shrubs, fences, walks and spot treatment in lawns
- Covers approximately ____ square feet

Read the entire label before using this product.
Use only according to label instructions.

**Keep out of reach of children.**

**CAUTION!** Read precautions on side panels.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions. If these terms are not acceptable, return at once unopened.

EPA Reg. No. 524-____

Ⓡ Registered trademark of Monsanto Company.

ACTIVE INGREDIENT:
*Isopropylamine salt of glyphosate..... 0.96%
INERT INGREDIENTS:..... 99.04%
100.00%

*Contains N-(phosphonomethyl) glycine

NET UNITS

193

Carefully read and follow detailed instructions in pamphlet.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

## CAUTION!

If swallowed, may cause gastrointestinal tract irritation. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until spray is thoroughly dry. In case of an emergency involving this product, Call Collect, day or night, (314)694-4000.

Environmental Hazards

Do not apply to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes.

(Continued on opposite side panel)

Roundup® herbicide is protected by U.S. Pat. No. 3,799,758 and 4,405,531. Other patents are pending.

©MONSANTO COMPANY 1987

(See other side panel for Precautionary Statements)

## Storage and Disposal

Do not contaminate water, feed, seed or foodstuffs by storage or disposal.

STORAGE: USE AND STORE THIS PRODUCT ONLY IN ITS ORIGINAL CONTAINER. Store product in a secure storage area. Protect product from freezing.

DISPOSAL: To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

Do not reuse container. Rinse thoroughly before discarding in trash.

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

MONSANTO COMPANY
ST. LOUIS, MISSOURI 63167, U.S.A.

| SUBMISSION REVIEW RECORD G | 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED |
|---|---|---|---|
| | 524 - 330 | | MO 10 DAY 28 YR 86 |
| 3. 3CID PUBLICATION NECESSARY ☐ YES ☐ NO | 4. PETITION NO. | | 5. RECEIVED PM TEAM MO DAY YR |
| 6. METHOD OF SUPPORT ☐ 2A ☐ 2B ☐ 2C | 7. PRODUCT MANAGER | NO. 25 | 8. PROJECTED RETURN MO DAY YR |
| 9. DATE PULLED 3/18/87 / 10. DATE PUBLISHED | 11. ACTION TYPE Name Change & Labels Rej 25 300 | CODE | 12. OUTGOING DATE MO DAY YR |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO | DAY | YR |
|---|---|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | | | |
| | F | PRODUCT MANAGER | | VKW | NAC | 03 | 18 | 87 |
| | G | INTERAGENCY REFERRAL | | | | | | |
| | H | COST-BENEFIT REVIEW | | | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | | | |
| | S | | | | | | | |
| | T | | | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

October 28, 1986

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Shackle® Herbicide
EPA Reg. No. 524-330
Roundup® L&G Ready-To-Use
Name approval and label
amendment requested.

Dear Sir:

On February 26, 1980 Monsanto was granted a registration for Shackle Herbicide (EPA Reg. No. 524-330). Shackle is a ready-to-use 2% formulation (0.96% isopropylamine salt of glyphosate) of Roundup® Herbicide. Monsanto now requests agency approval to use the name Roundup L&G Ready-To-Use for this product. Roundup L&G Ready-To-Use will be marketed as a convenient ready-to-use glyphosate product.

The Roundup L&G Ready-To-Use label is similar to the Shackle agency-approved label, except for some minor amendments. The proposed labeling revisions are supported by data on file with the Agency. On September 30, 1982 Monsanto received a scientific review and evaluation of data submitted to support the Shackle registration. Results from these acute studies placed Shackle Herbicide in an acute oral toxicity Category of IV, primary skin irritation in Category IV, acute inhalation and eye irritation were classified as core supplementary and acute dermal toxicity was classified as category III.

Monsanto submitted a replacement primary eye irritation study with Shackle herbicide on April 15, 1983 (EPA Accession No. 250070). This study was accepted by the agency (June 27, 1983) and classified as Core Guideline. The results of this study indicate that this product is practically non-irritating to the rabbit eye and is classified as a Category IV.

On April 7, 1982 Monsanto submitted an acute inhalation toxicity study in rats with Roundup® (EPA Accession number 247188). Roundup contains 41.0 percent isopropylamine salt of glyphosate. This study was accepted by the Agency. Roundup Herbicide possesses a relatively low acute inhalation hazard (4 hr. $LC_{50}$ = 3.18 mg/ℓ). Shackle is essentially Roundup diluted with water to a concentration of 0.96 percent isopropylamine salt of glyphosate. Thus, Shackle contains more that 98 percent water and the acute inhalation $LC_{50}$ for Shackle should be equal to or greater than 3.18 mg/ℓ. Conducting an acute inhalation study on a material consisting of 98 percent water should not be necessary because a good assessment of potential acute inhalation hazard has already been obtained. We request that the acute inhalation data requirement for Shackle be waived. This is consistent with an earlier decision by the Agency to grant a waiver for acute inhalation and dermal sensitization studies on Shackle C Herbicide 10 percent solution (November 16, 1984) based on the $LC_{50}$ study with Roundup Herbicide.

The original Shackle Herbicide acute dermal toxicity was classified as Category III. In 1985, Monsanto repeated this study in an attempt to upgrade the Shackle Herbicide data base. The upgraded study was submitted to the Agency on October 9, 1986 and designated as RD No. 705. Results from this study determined the dermal $LC_{50}$ to be in excess of 5000 mg/kg when rabbits received a continuous 24-hour application of undiluted test material on intact skin. Shackle is considered to be practically non-toxic following a single dermal application and the new dermal toxicity category should be upgraded to IV. Monsanto is waiting for an accession number and scientific review of this study.

At this time, Monsanto requests agency approval of the attached Roundup L&G Ready-To-Use use directions and labels. This product will be marketed in three convenient sizes, 1 gal, 64 ounces, and 24 ounce containers. The container label use directions are identical for each of the proposed container sizes. Box label use directions will also be identical for each of the proposed box sizes. To support this amended Roundup L&G Ready-To-Use registration request find enclosed a completed application for pesticide form, certification with respect to citation of data form, and five (5) copies of container and box labels. The storage and disposal statements have been amended to comply with the P.R. notice 83-3 registration requirements.

We request the agency approve these labels as soon as possible. If you have questions or comments about this registration request, please contact Lyle Gingerich or myself.

Sincerely,

Kevin F. Cannon

Kevin F. Cannon
Sr. Registration Specialist

Attachments

cc: Lyle Gingerich

/jjs

Form Approved. OMB No. 2000-0483. Approval expires 7-31-84

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDE PROGRAM (TS-767)
WASHINGTON, D.C. 20460

# APPLICATION FOR PESTICIDE:

☐ REGISTRATION
☒ AMENDMENT A

Please read instructions on reverse before completing.

## SECTION I

| 1. COMPANY/PRODUCT NO. | 2. DATE | 3. PRODUCT MANAGER | 4. PROPOSED CLASSIFICATION |
|---|---|---|---|
| Monsanto/524-330 | October 27, 1986 | R.J. Taylor (25) | ☒ GENERAL ☐ RESTRICTED |

5. NAME AND ADDRESS OF APPLICANT (Include ZIP Code)

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036

☐ CHECK IF THIS IS A NEW ADDRESS

6. PRODUCT NAME

Roundup L&G Ready-to-Use

## SECTION II

1. SUBJECT OF AMENDMENT

☐ RESUBMISSION IN RESPONSE TO AGENCY LETTER DATED _____

☐ FINAL PRINTED LABEL IN RESPONSE TO AGENCY LETTER DATED _____

☒ OTHER (explain below)

Request to amend Shackle Herbicide registration to include Roundup L&G Ready-to-Use name and label revisions.

## SECTION III

1. WILL THIS PRODUCT BE PACKAGED IN:

CHILD-RESISTANT PACKAGING ☐ YES ☒ NO

UNIT PACKAGING ☒ YES ☐ NO
If YES, unit pkg. wt. 33.81lbs No. per container 4x1 gal., 6x6 4 oz, 12 x 24oz

WATER-SOLUBLE PACKAGING ☐ YES ☒ NO
If YES, pkg. wt. _____ No. per container _____

2. TYPE OF CONTAINER

☐ METAL
☒ PLASTIC
☐ GLASS
☒ PAPER
☐ OTHER (Specify)

3. LOCATION OF NET CONTENTS
☒ LABEL ☒ CONTAINER

4. SIZE(S) OF RETAIL CONTAINER
1 gal, 64 oz, 24 oz

5. LOCATION OF LABEL DIRECTIONS
☒ ON LABEL
☐ ON MATERIAL ACCOMPANYING PRODUCT

6. MANNER IN WHICH LABEL IS AFFIXED TO PRODUCT
☐ LITHOGRAPH
☒ PAPER GLUED
☐ STENCILED
☒ OTHER (Specify) Vinyl label with adhesive backing

## SECTION IV

1. CONTACT POINT (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).

NAME
Kevin F. Cannon

TITLE
Sr. Registration Specialist

TELEPHONE NO. (Include Area Code)
(314) 694-3095

2. SIGNATURE
Kevin F. Cannon

3. TITLE
Sr. Registration Specialist

4. TYPED NAME

5. DATE SIGNED
10-28-86

6. DATE APPLICATION RECEIVED (Stamped)

EPA Form 8570-1 (Rev. 5-81) PREVIOUS EDITION IS OBSOLETE.

*U.S. GOVERNMENT PRINTING OFFICE: 1984-431-398/7094

Form Approved OMB No. 2000-0012

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGISTRATION DIVISION (TS-767)
WASHINGTON, D.C. 20460

# DATA REFERENCE SHEET

*(See instructions on the back of the last page before completing.)*

1. PAGE: 1 OF 1

2. EPA REGISTRATION NO./FILE SYMBOL: 524-330

3. APPLICANT'S NAME AND ADDRESS:
Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036

4. PRODUCT NAME: Shackle (Roundup L&G Ready-to-Use)

5. PRODUCT MANAGER: Robert J. Taylor (25)

6. TO ACCOMPANY APPLICATION FOR REGISTRATION DATED:

| 7. NAME OF STUDY | SOURCE OF STUDY: a. APPLICANT CONDUCTED STUDY (mark 'X') | b. OBTAINED FROM EPA (mark 'X') | c. OBTAINED FROM ANOTHER FIRM OR SOURCE (give name and address) | d. OBTAINED FROM PUBLIC LITERATURE (give reference) | e. OTHER (explain) | f. ACCESSION NUMBER (if known) |
|---|---|---|---|---|---|---|
| Acute Eye Irritation Study; Shackle Herbicide | X | | | | | 250070 |
| Acute Inhalation $LC_{50}$ Study for Roundup Herbicide | X | | | | | 247188 |
| Shackle Herbicide Acute Dermal Toxicity study in ~~Rabbits RD NO. 705~~ | X | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

If you marked "X" in this column, do you wish your name placed on the Data Submitters List? [X] YES [ ] NO

201

EPA Form 8570-20 (1-81)

APPLICANT-RETAIN THE LAST COPY

EPA COPY

## CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-330 Date of application Oct. 27, 1986

Name of Product Roundup L&G Ready-to-Use

Applicant's Name and Address

Monsanto Company

1101 17th Street N.W.

Washington, D.C. 20036

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support this application and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirement of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

[ ] All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below.)

[X] ~~Those companies who have~~ The Monsanto Company has submitted the studies which I have cited (Selective method)

Date 10-27-86 Signature Kevin T. Cannon

Title Sr. Registration Specialist

General Offer to Pay: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date _____ Signature _____

Title _____



EPA Form (April 1985)

MAR 23 1987

Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Attention: Kevin F. Cannon

Gentlemen:

Subject: Shackle Herbicide (Alternate Formulation)
EPA Registration No. 524-330
Your Letter Dated February 16, 1987

The scientific review and evaluation of the requested alternate formulation have been completed. The requested alternate formulation is acceptable and our records have been modified accordingly.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

91045:Taylor:T-3:KENCO:3/19/87:3/30/87:TAR:VO:EK:NeeCee

CONCURRENCES

| | ORIGINATOR | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL | TS-767C | | | | | | | |
| SURNAME | WKWalker | | | | | | | |
| DATE | 3/23/87 | | | | | | | |

# SUBMISSION REVIEW RECORD

G

| 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED (MO DAY YR) |
|---|---|---|
| 524-330 | | 02 16 87 |

| 3. 3CID PUBLICATION NECESSARY | 4. PETITION NO. | 5. RECEIVED PM TEAM (MO DAY YR) |
|---|---|---|
| ☐ YES ☐ NO | | |

| 6. METHOD OF SUPPORT | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN (MO DAY YR) |
|---|---|---|---|
| ☐ 2A ☐ 2B ☐ 2C | | 25 | |

| 9. DATE PULLED | 10. DATE PUBLISHED | 11. ACTION TYPE | CODE | 12. OUTGOING DATE (MO DAY YR) |
|---|---|---|---|---|
| 3/18/87 | | alt Formula Rl 43 346 | | |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED (MO DAY YR) |
|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | |
| | F | PRODUCT MANAGER | | VKW | NAC | 03 18 87 |
| | G | INTERAGENCY REFERRAL | | | | |
| | H | COST-BENEFIT REVIEW | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | |
| | S | | | | | |
| | T | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

February 16, 1987

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Shackle® Herbicide
EPA Reg. No. 524-330
Submission of Alternate
Formulation, Response
to EPA Review

Dear Sir:

On January 28, 1987 Monsanto received a scientific review and evaluation on our request to register one (1) alternate formulation of Shackle® Herbicide. In compliance to the Agency's request find enclosed a new Confidential Statement of Formula, Form (Rev. 2-85), indicating the certified limits for each component. Surfactant suppliers have been notified to complete a chemical composition and report CAS number to the Agency in support of our petition.

Monsanto has addressed the Agency's concerns and now requests the acceptance of the enclosed Shackle® alternate formulation.

If you have any questions regarding this petition please contact Lyle Gingerich or myself.

Sincerely,

Kevin F. Cannon

Kevin F. Cannon
Senior Registration Specialist

/bj
Attachment
cc: Lyle Gingerich

MAR 23 1987

Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Attention: Kevin F. Cannon

Gentlemen:

Subject: Shackle Herbicide (Acute Dermal Toxicity Study)
EPA Registration No. 524-330
Your Letter Dated October 9, 1986

We have your letter of October 9, 1986 transmitting an acute dermal toxicity study in support of the subject registration. Further action will await completion of scientific review and evaluation.

The Accession Number assigned these data is 265535.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

91045:Taylor:T-3:KENCO:3/19/87:3/30/87:TAR:VO:EK:NeeCee

CONCURRENCES

| | ORIGINATOR | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL | TS-767C | | | | | | | |
| SURNAME | VKWalker | | | | | | | |
| DATE | 3/23/87 | | | | | | | |

OFFICIAL FILE COPY

# Monsanto

**MONSANTO AGRICULTURAL COMPANY**
800 N. Lindbergh Boulevard
St. Louis, Missouri 63167
Phone: (314) 694-1000

October 9, 1986

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Shackle® Herbicide.
EPA Reg. No. 524-330
Additional information
to support registration
Acute Dermal Toxicity
Study. 205535

Dear Sir:

Monsanto is submitting to the EPA a research report entitled Shackle®: Acute Dermal Toxicity Study in Rabbits. This volume is designated by R.D. No. 705.

The research report is being submitted to update the Shackle® data base. Results from this study determined the dermal LD50 to be in excess of of 5000 mg/kg when rabbits received a continuous 24-hour application of undiluted test material on intact skin. Shackle is considered to be practically non-toxic following a single dermal application and the dermal toxicity category IV.

Please inform us of the assession number assigned to this report.

Sincerely,

Kevin F. Cannon

Kevin F. Cannon
Senior Registration Specialist

/ss

cc: L. L. Gingerich

JAN 28 1987

Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Attention: Kevin F. Cannon

Gentlemen:

Subject: Shackle® Herbicide
EPA Registration No. 524-330
Re: Alternate Formulation
Your Submission Dated September 30, 1986

The above submission has been reviewed by our Agency and is unacceptable. Submit your formulation on the new Confidential Statement of Formula Form that requires certified limits for each component. Have the suppliers of the [redacted] provide the complete chemical composition and the CAS Numbers for the products.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

*Inert ingredient information may be entitled to confidential treatment*

91243:Giles:T-6:KENCO:1/27/87:2/4/87:TAR:VO

CONCURRENCES

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL ▶ | TS-767C | | | | | | | |
| SURNAME ▶ | Giles | | | | | | | |
| DATE ▶ | 1-28-87 | | | | | | | |

EPA Form 1320-1 (4-81)

OFFICIAL FILE COPY

# Monsanto

Rec. 10/6/86
RDT

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

September 30, 1986

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Shackle® Herbicide
EPA Reg. No. 524-330
Submission of an Alternate Formulation

Dear Sir:

Monsanto is submitting to the EPA one (1) alternate formulation for Shackle Herbicide. The proposed change represents an improvement in product quality. The enclosed alternate formulation differs from the current approved formulation as follows:

1. The dye, [redacted] has been removed from this formulation.

2. The [redacted] has been removed from this formulation.

3. The [redacted]

4. The addition of several new surfactant suppliers, [redacted]

*Inert ingredient information may be entitled to confidential treatment*

*Product ingredient source information may be entitled to confidential treatment*

All new inert ingredients appear in 40 CFR 180.1001. Note that the glyphosate concentration in the new formulation is unchanged.

We request the Agency to accept this alternate formulation.

Sincerely,

Kevin F. Cannon

Kevin F. Cannon
Senior Registration Specialist

/pt
Enclosure

cc: L. L. Gingerich

# REGISTRATION DIVISION DATA REVIEW RECORD

*Confidential Business Information — Does Not Contain National Security Information (E.O. 12065)*

1. CHEMICAL NAME: Glyphosate

| 2. IDENTIFYING NUMBER | 3. ACTION CODE | 4. ACCESSION NUMBER | TO BE COMPLETED BY PM |
|---|---|---|---|
| 524-330 | 345 | | 5. RECORD NUMBER: 183175 |
| | | | 6. REFERENCE NUMBER: 3 |
| | | | 7. DATE RECEIVED (EPA): 10-7-86 |
| | | | 8. STATUTORY DUE DATE |
| | | | 9. PRODUCT MANAGER (PM): Taylor/Giles |
| | | | 10. PM TEAM NUMBER: 25 |

14. CHECK IF APPLICABLE

- ☐ Public Health/Quarantine
- ☐ Minor Use
- ☐ Substitute Chemical
- ☐ Part of IPM
- ☐ Seasonal Concern
- ☐ Review Requires Less Than 4 Hours

TO BE COMPLETED BY PCB

11. DATE SENT TO HED/TSS
12. PRIORITY NUMBER
13. PROJECTED RETURN DATE

15. INSTRUCTIONS TO REVIEWER

A. HED
- ☐ Total Assessment - 3(c)(5)
- ☐ Incremental Risk Assessment - 3(c)(7) and/or E.L. Johnson memo of May 12, 1977.

B. SPRD (Send Copy of Form to SPRD PM)
- ☐ Chemical Undergoing Active RPAR Review
- ☐ Chemical Undergoing Active Registration Standards Review

C. ☐ BFSD
D. ☒ TSS/RD
E. ☐ Other

F. INSTRUCTIONS: Please review alternate formula

16. RELATED ACTIONS

17. 3(c)(1)(D)
- ☐ Use Any or All Available Information
- ☐ Use Only Attached Data
- ☐ Use Only the Attached Data for Formulation and Any or All Available Information on the Technical or Manufacturing Chemical.

18. REVIEWS SENT TO
- ☐ TB
- ☐ EEB
- ☐ EF
- ☐ PL
- ☐ RCB
- ☐ EFB
- ☒ CH
- ☐ BFSD

| 19. To | TYPE OF REVIEW | NUMBER OF ACTIONS: Registration | Petition | EUP | SLN | Sec. 18 | Inert | MNR. USE | Other |
|---|---|---|---|---|---|---|---|---|---|
| HED | TOXICOLOGY | | | | | | | | |
| HED | ECOLOGICAL EFFECTS | | | | | | | | |
| HED | RESIDUE CHEMISTRY | | | | | | | | |
| HED | ENVIRONMENTAL DATE | | | | | | | | |
| RD/TSS | CHEMISTRY | 1 | | | | | | | |
| RD/TSS | EFFICACY | | | | | | | | |
| RD/TSS | PRECAUTIONARY LABELING | | | | | | | | |
| BFSD | ECONOMIC ANALYSIS | | | | | | | | |

| 20. | 21. | 22. | 23. | 24. |
|---|---|---|---|---|
| ☐ Label Submitted with Application Attached | ☒ Confidential Statement of Formula | ☐ Representative Labels Showing Accepted Uses Attached | Date Returned to RD (to be completed by HED) | Include an Original and 4 (four) Copies of This Completed Form for Each Branch Checked for Review. |

EPA Form 8570-13 (Rev. 11-81) PREVIOUS EDITIONS ARE OBSOLETE.

JUN 27 1986

Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Attention: Thomas F. Armstrong

Gentlemen:

Subject: Shackle Herbicide (Acute Eye Irritation Study)
EPA Registration No. 524-330
Your Letter Dated August 24, 1983

In your letter of August 24, 1983 you questioned whether or not future eye irritation studies would require nine animals. At the time the study (Accession No. 250070) was reviewed the study was classified as Core-Minimum data under the 1978 Guidelines. After reviewing the study under the current Guidelines, the eye irritation study is reclasssified as Core Guideline data.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

90323:Taylor:T-11:KENCO:6/24/86:7/3/86:DAA:VO

CONCURRENCES

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL ▶ | TS-767C | | | | | | | |
| SURNAME ▶ | VKWalters | | | | | | | |
| DATE ▶ | 6/27/86 | | | | | | | |

EPA Form 1320-1 (4-81)

OFFICIAL FILE COPY

| SUBMISSION REVIEW RECORD G | 1. REGISTRATION NUMBER: 524-3310 | CYCLE | 2. DATE RECEIVED: MO 10 DAY 03 YR 83 |
|---|---|---|---|
| 3. ICID PUBLICATION NECESSARY: ☐ YES ☐ NO | 4. PETITION NO. | | 5. RECEIVED PM TEAM: MO DAY YR |
| 6. METHOD OF SUPPORT: ☐ 2A ☐ 2B ☐ 2C | 7. PRODUCT MANAGER: Taylor | NO. 25 | 8. PROJECTED RETURN: MO 12 DAY 16 YR 83 |
| 9. DATE PULLED: 11/16/83 | 10. DATE PUBLISHED | 11. ACTION TYPE: Question on guidelines 400 | CODE / 12. OUTGOING DATE: MO 11 DAY 16 YR 83 |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO | DAY | YR |
|---|---|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | | | |
| | F | PRODUCT MANAGER | | VKW | | | | |
| | G | INTERAGENCY REFERRAL | | | | | | |
| | H | COST-BENEFIT REVIEW | | | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | | | |
| ✓ | S | TSS/PL | MLW | Mary L. Walls | NAC | 5 | 29 | 86 |
| | T | | | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MAY 29 1986

MEMORANDUM

SUBJECT: EPA Registration No. 524-330
Shackle

FROM: Mary L. Waller mlw
Technical Support Section
Fungicide-Herbicide Branch
Registration Division (TS-767C)

TO: Robert Taylor, PM 25 E 6/6/86
Fungicide-Herbicide Branch
Registration Division (TS-767C)

APPLICANT: Monsanto Company
1101 17th Street NW.
Washington, D.C. 20036

ACTIVE INGREDIENT:
Glyphosate, Isopropylamine Salt of N-(Phosphonomethyl) Glycine . . . . . 0.96%
INERT INGREDIENTS: . . . . . 99.04%

BACKGROUND:

In a letter dated August 24, 1983, the registrant questioned the June 29, 1983, TSS review of a primary eye irritation study used to support registration of 524-330. The registrant questioned the TSS comment that in future primary eye irritation studies nine animals (six with treated unwashed eyes and three with treated washed eyes) must be used. The study was conducted by Monsanto Company. The data Accession Number is 250070. The method of support was not indicated.

RECOMMENDATION:

When TSS reviewed the primary eye irritation study, data were being classified under the old Guidelines of 1978. The data were classified as core minimum at that time. However, after reviewing the data using the current Guidelines, TSS reclassifies the data as core guideline data.

LABELING:

No additional labeling is necessary.

REVIEW:

(1) Eye Irritation Study: Monsanto Company; Study No. 830012; March 22, 1983.

PROCEDURE:

A 0.1 ml dose was instilled into the conjunctival sac of six rabbits (three M, three F). Observations made at 24, 48, and 72 hours after treatment. One of the female animals died from undetermined causes on the second day after exposure and an additional female rabbit was subsequently placed on test.

RESULTS:

At 24 hours, 1/6 had corneal opacity (1/6 = 5); 1/6 discharge (1/6 = 2). Irritation had cleared by day 2.

STUDY CLASSIFICATION: Core Guideline Data.

TOXICITY CATEGORY: Category IV - CAUTION.

# Monsanto

Monsanto Company
1101 17th Street, N. W.
Washington, D. C. 20036
Phone: (202) 452-8860

August 24, 1983

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Shackle® Herbicide (Acute Eye Irritation Study)
EPA Reg. No. 524-330
Your letter of August 16, 1983

Dear Sir:

In your August 16, 1983 letter reporting the results of the review of the acute eye irritation study you stated that:
2. "For future submissions, please note that nine animals (six with treated unwashed eyes and three with treated washed eyes) must be used."

We question the basis for this statement. In the Pesticide Assessment Guidelines, Subpart F Hazard Evaluation: Human and Domestic Animals, PB 83-153916, National Technical Information Service, November 1982, pp 51-55, the current procedure calls for at least six animals. This was done in the subject study.

Does the Agency intend to modify the guidelines or is there a misunderstanding on what is required? We would appreciate clarification of this issue.

A copy of your August 16 letter and pages 51-55 from the guidelines are attached for your convenience.

Sincerely,

Robert W. Street

Robert W. Street
Manager, Product Health
and Safety Information

RWS/jr
Attachments

cc: Dr. C. T. Dickerson
Dr. L. L. Gingerich
Dr. T. W. Fuhremann

§ 81-4 Primary eye irritation.

(a) When required. Data on primary eye irritation are required by 40 CFR Part 158 § support the registration of each manufacturing-use product and each end-use product. See, specifically, 40 CFR § 158.50 and § 158.135 to determine whether these data must be submitted. Section II-A of this subdivision contains an additional discussion of the "Formulators' Exemption" and who must submit the required data as a general rule.

(b) Purpose. In the assessment and evaluation of the toxic characteristics of a substance, determination of the irritant and/or corrosive effects on eyes of mammals is an important initial step. Information derived from this test serves to indicate the existence of possible hazards likely to arise from exposure of the eyes and associated mucous membranes to the test substance.

(c) Definitions.

(1) "Eye corrosion" is the production of irreversible tissue damage in the eye following application of a test substance to the anterior surface of the eye.

(2) "Eye irritation" is the production of reversible changes in the eye following the application of a test substance to the anterior surface of the eye.

(d) Standard of the test method.

(1) The substance to be tested is applied in a single dose to one of the eyes in each of several experimental animals; the untreated eye is used to provide control information. The degree of irritation/corrosion is evaluated and scored at specific intervals and is fully described to provide a complete evaluation of the effects. The duration of the study should be sufficient to permit a full evaluation of the reversibility or irreversibility of the effects observed but need not exceed 21 days.

(2) Strongly acidic or alkaline substances, for example with a demonstrated pH of 2 or less or 11.5 or greater, need not be tested owing to their predictable corrosive properties.

(3) Materials which have demonstrated definite corrosion or severe irritation in a dermal study need not be further tested for eye irritation. It may be presumed that such substances should produce similarly severe effects in the eyes.

(e) Substance to be tested. (1) Test substance. (i) The manufacturing-use product shall be tested to support the registration of a manufacturing-use product.

(ii) The end-use product shall be tested to support the registration of an end-use product.

(2) Condition of test substance.

(i) If the test substance is a liquid, it should be placed in the eye undiluted, in accordance with paragraph (f)(4) of this section.

(ii) If the test substance is a solid or granular product, it should be ground into a fine dust or powder. The test substance should not be moistened before it is placed in the eye in accordance with paragraph (f)(4) of this section.

(3) Corrosive pesticides. Data which demonstrate that the test substance specified by paragraph (e)(1) of this section has a pH of 1-2 or 11.5-14 may be submitted in lieu of data from a primary eye irritation study conducted in accordance with paragraph (f) of this section. For all regulatory purposes, the Agency will assume that such a substance is corrosive.

(f) Test procedures. (1) Animal selection. (i) Species and strain. A variety of experimental animals have been used, but it is recommended that testing should be performed using healthy adult albino rabbits. Commonly used laboratory strains should be used. If another mammalian species is used, the tester should provide justification/reasoning for its selection.

(ii) Number of animals. At least six animals should be used, unless justification/reasoning for using fewer animals is provided.

(2) Dose level. (i) For testing liquids, a dose of 0.1 ml is used. In testing solids, pastes, and particulate substances, the amount used should have a volume of 0.1 ml, or a weight of not more than 100 mg (the weight must always be recorded). If the test material is solid or granular, it should be ground to a fine dust. The volume of particulates should be measured after gently compacting them, e.g., by tapping the measuring container. To test a substance contained in a pressurized aerosol container the eye should be held open and the test substance administered in a single burst of about one second from a distance of 10 cm directly in front of the eye. The dose may be estimated by weighing the container before and after use. Care should be taken not to damage the eye. Pump sprays should not be used but instead the liquid should be expelled and 0.1 ml collected and instilled into the eye as described for liquids.

(3) Examination of eyes prior to test. (i) Both eyes of each experimental animal provisionally selected for testing should be examined within 24 hours before testing starts by the same procedure to be used during the test examination. Animals showing eye irritation, ocular defects or pre-existing corneal injury should not be used.

(4) Application of the test substance. (i) The test substance should be placed in the conjunctival sac of one eye of each animal after

gently pulling the lower lid away from the eyeball. The lids are then gently held together for about one second in order to prevent loss of the material. The other eye, which remains untreated, serves as a control. If it is thought that the substance could cause extreme pain, a local anesthetic may be used prior to instillation of the test substance. The type and concentration of the local anesthetic should be carefully selected to ensure that no significant differences in reaction to the test substance will result from its use. The control eye should be similarly anesthetized.

(ii) The eyes of the test animals should not be washed out for 24 hours following instillation of the test substance. At 24 hours, a washout may be used if considered appropriate.

(5) Observation period. (i) The duration of the observation period should not be fixed rigidly, but it should be sufficient to evaluate fully the reversibility or irreversibility of the effects observed. It normally need not exceed 21 days after instillation.

(6) Clinical examination and scoring. (i) The eyes should be examined at 1, 24, 48, and 72 hours. If there is no evidence of irritation at 72 hours, the study may be ended. Extended observation may be necessary if there is persistent corneal involvement or other ocular irritation in order to determine the progress of the lesions and their reversibility or irreversibility. In addition to the observations of the cornea, iris and conjunctivae, any other lesions which are noted should be recorded and reported. The grades of ocular reaction using Table 1 should be recorded at each examination.

TABLE 1: GRADES FOR OCULAR LESIONS

CORNEA

Opacity: degree of density (area most dense taken for reading).

| | |
|---|---|
| - No ulceration or opacity . . . . . | 0 |
| - Scattered or diffuse areas of opacity (other than slight dulling of normal luster), details of iris clearly visible . . . . . | 1* |
| - Easily discernible translucent area, details of iris slightly obscured . . . . . | 2* |
| - Nacrous area, no details or iris visible, size of pupil barely discernible . . . . . | 3* |
| - Opaque cornea, iris not discernible through the opacity . . . . . | 4* |

*Starred figures indicate positive effect.

IRIS

- Normal . . . . . 0
- Markedly deepened rugae, congestion, swelling, moderate circumcorneal hyperemia, or injection, any of these or combination of any thereof, iris still reacting to light (sluggish reaction is positive) . . . . . 1*
- No reaction to light, hemorrhage, gross destruction (any or all of these) . . . . . 2*

CONJUNCTIVAE

Redness (refers to palpebral and bulbar conjunctivae, cornea, and iris)

- Blood vessels normal . . . . . 0
- Some blood vessels definitely hyperemic (injected) . . . . . 1
- Diffuse, crimson color, individual vessels not easily discernible . 2*
- Diffuse beefy red . . . . . 3*

Chemosis: lids and/or nictating membranes

- No swelling . . . . . 0
- Any swelling above normal (includes nictating membranes) . . . . . 1
- Obvious swelling with partial eversion of lids . . . . . 2*
- Swelling with lids about half closed . . . . . 3*
- Swelling with lids more than half closed . . . . . 4*

Discharge

- No discharge . . . . . 0
- Any amount different from normal (does not include small amounts observed in inner canthus of normal animals) . . . . . 1
- Discharge with moistening of the lids and hairs just adjacent to lids 2
- Discharge with moistening of the lids and hairs, and considerable area around the eye . . . . . 3

(ii) Examination of reactions can be facilitated by use of a binocular loupe, hand slit-lamp, biomicroscope, or other suitable device. After recording the observations at 24 hours, the eyes of any or all rabbits may be further examined with the aid of fluorescein.

(iii) The grading of ocular responses is subject to various interpretations. To promote harmonization and to assist testing laboratories and those involved in making and interpreting the observations, an illustrated guide in grading eye irritation should be used. (Such an illustrated guide is in use in the United States and can be obtained from the Consumer Product Safety Commission, Washington, D.C. 20207.)

---

*Starred figures indicate positive effect.

(g) Data and reporting. (1) Data shall be summarized in tabular form, showing, for each individual animal:

(i) The irritation scores at the designated observation time;

(ii) A description of the degree and nature of irritation;

(iii) The presence of serious lesions; and

(iv) Any effects other than ocular which were observed.

(2) Evaluation of the results. The ocular irritation scores shall be evaluated in conjunction with the nature and reversiblity or otherwise of the responses observed. The individual scores do not represent an absolute standard for the irritant properties of a material. They shall be viewed as reference values and are only meaningful when supported by a full description and evaluation of the observations.

(3) Test report. In addition to the information required by § 80-4, the test report shall include the following information:

(i) Physical nature and, where appropriate, concentration and pH value for the test substance;

(ii) Species and strain used;

(iii) Tabulation of irritant/corrosive response data for each individual animal at each observation time point (e.g., 1, 24, 48, and 72 hours);

(iv) Description of any lesions observed;

(v) Narrative description of the degree and nature of irritation or corrosion observed;

(vi) Description of the method used to score the irritation at 1, 24, 48, and 72 hours (e.g., hand slit-lamp, biomicroscope, fluorescein); and

(vii) Description of any non-ocular effects noted.

§ 81-5 Primary dermal irritation.

(a) When required. Data on primary dermal irritation are required by 40 CFR Part 158 to support the registration of each manufacturing-use product and each end-use product. See, specifically, 40 CFR § 158.50 and § 158.135 to determine whether these data must be submitted. Section II-A of this subdivision contains an additional discussion of the "Formulators' Exemption" and who must submit the required data as a general rule.

RECEIVED AUG 22 1983

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

Received AUG 18 1983

Agricultural Affairs

OFFICE OF PESTICIDES AND TOXIC SUBSTANCES

AUG 16 1983

Monsanto Company
1101 17th Street, NW.
Washington, DC 20036

Attention: Robert W. Street

Gentlemen:

Subject: Shackle Herbicide (Acute Eye Irritation Study)
EPA Registration No. 524-330
Your Letter of April 15, 1983

The scientific review and evaluation of the data submitted above have been completed. The following are our comments and/or conclusions.

1. The study is classified as core-minimum data and is acceptable to support registration.

2. For future submissions, please note that 9 animals (6 with treated unwashed eyes and 3 with treated washed eyes) must be used.

3. The appropriate toxicity category for this study is IV-CAUTION.

4. Based on this study and previously reviewed studies, the appropriate signal word is CAUTION.

5. The following label revisions are needed.

   a. The "Keep Out of Reach of Children" statement must precede the signal word.

   b. The statement "Keep out of lakes, streams, and ponds" must be revised to read "Do not apply directly to water."

   c. The "Storage and Disposal" statements should be updated to conform with PR Notice 83-3.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

Convenient Spray Applicator

# SHACKLE®

## Weed and Grass Controller

**Controls most unwanted plants and their roots.**

**Doesn't affect the soil.**

EPA Reg. No. 524-330

Active Ingredient:
Glyphosate, Isopropylamine Salt of
N-(Phosphonomethyl)Glycine .. 0.96%
Inert Ingredients: ..... 99.04%
100.00%

CAUTION! Read precautions on back panel.
Keep out of reach of children.

NET 1 qt (32 fl oz)

Read the entire label.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in any manner inconsistent with its labeling.

When used as directed, this product controls most weeds, grasses, sedges or brush species, including hard-to-control broadleaf weeds like dandelion and thistle and grasses such as fescues, bermudagrass, and crabgrass.

This product is absorbed by foliage and moves throughout the plant resulting in destruction of both the treated foliage and its supportive root system. Visual effects are a gradual wilting and yellowing which generally develop in five to ten days and advance to a complete browning or deterioration of foliage and underground plant parts.

This product does not harm adjacent desirable plants that are not sprayed. It has no residual soil activity so plants that are seeded or emerged after application will not be affected.

### WHERE TO APPLY

**Ornamentals:** Apply this product to control undesirable plants growing around ornamentals, trees or shrubs. Spray contact, other than with mature bark of desirable plants may cause injury.

**Trimming and Edging:** Apply this product to control undesirable plants growing along the edges or in cracks or crevices of sidewalks, driveways, curbs, patios or similar areas.

**Landscaping:** Apply this product to control undesirable weeds or grasses growing in areas where plantings or ornamentals, trees, shrubs, desert landscapes, rock gardens, flower beds or similar plantings will be made.

**Lawns:** Apply this product to control undesirable weeds growing in lawns. Spot treating undesirable weeds in a lawn will cause a dead spot until sufficient growth occurs to close the area. Larger spots will require reseeding to provide complete grass cover and help prevent reinfestation by undesirable plants.

**Gardens:** Apply this product to control weeds growing in areas that will later be planted to the following crops:

- Sweetcorn
- Root crops such as beets, onions, potatoes, radishes and turnips.
- Leafy vegetables such as cabbage, lettuce and spinach.
- Seed and Pod vegetables such as beans and peas.

**Trees (Apple, Citrus, Nut, Pear) and Grape Vines:** Apply this product to control undesirable plants growing around these trees and vines. Spray contact, other than with mature bark of the main trunk can injure the tree or vine. Allow 21 days between application and picking.

**General Weed Control:** Apply this product to control undesirable plants growing in fences, around physical ornaments, buildings, tool sheds or other areas where control is desired.

### WHEN TO APPLY

Apply this product when weeds, grasses or undesirable plants are actively growing. Performance may be reduced if weeds are wilted, have insect damage, or have recently been clipped or mowed. Adequate foliage must be present to receive the spray.

If rainfall occurs within six hours after application, the product may be washed off treated foliage requiring a repeat application.

Avoid making application during windy conditions that may result in spray drift to desirable plants.

### HOW TO APPLY

This product is supplied ready to use without further mixing or dilution. It should be applied using the applicator-container as a foliage spray to weeds and grasses. Do not add water or other materials to the product.

Spray directly on the foliage of weeds or other undesirable plants. The spray should be directed and the nozzle tip adjusted so that only undesirable plants receive spray. The sprayer tip should be held approximately six inches from the foliage. Coverage should be complete and uniform stopping just before the spray begins to drip or run off the foliage.

Avoid spray contact with desirable plants. If desirable plants are accidentally sprayed, injury may be reduced or prevented by thoroughly flushing with water immediately.

Treated plants should not be mowed or disturbed by tillage, digging or slicing for seven days after application to allow time for the product to be absorbed and moved to the root systems.

NOTE: Use of this product in any manner not consistent with the label may result in injury to persons, animals, desirable plants or other unintended consequences. Keep container closed to prevent spills and contamination.

EPA Est. 524-LA-1 2005/53 - 3-9-79

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

U.S. Pat. No. 3,799,758 covers use.
Other patents are pending.
©MONSANTO COMPANY 1979

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63166 U.S.A.

### PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals

Keep out of reach of children.

**CAUTION!**

MAY CAUSE EYE IRRITATION.

Avoid contact with eyes.

FIRST AID: IN CASE OF EYE CONTACT, flush with plenty of water for at least 15 minutes. Call a physician. Flush skin with water. Wash clothing before reuse.

#### Environmental Hazards

Keep out of lakes, streams and ponds. Do not contaminate water by disposal of waste or cleaning of equipment.

#### Storage and Disposal

Avoid contamination of seed, feed, and foodstuffs.

Do not reuse container, destroy when empty.

### LIMIT OF WARRANTY AND LIABILITY

This company warrants that this product is reasonably fit for the purposes set forth in the Directions for Use, when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE.

Buyer and all users shall promptly notify this company of any claims. Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this company, including, but not limited to, application in any manner not explicitly set forth in the Directions. THE LIMIT OF LIABILITY OF THIS COMPANY SHALL NOT EXCEED THE PURCHASE PRICE OF THIS PRODUCT. IN NO EVENT SHALL THIS COMPANY BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

ACCEPTED
26 Feb 1980
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

BEST DOCUMENT AVAILABLE

Convenient Spray Applicator

# SHACKLE®

## Weed and Grass Controller

**Controls most unwanted plants and their roots.**

**Doesn't affect the soil.**

EPA Reg. No. 524-330

Active Ingredient:
Glyphosate, Isopropylamine Salt of
N-(Phosphonomethyl)Glycine .. 0.96%
Inert Ingredients: ..... 99.04%
100.00%

CAUTION! Read precautions on back panel.
Keep out of reach of children.

NET 1 qt (32 fl oz)

Read the entire label.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in any manner inconsistent with its labeling.

When used as directed, this product controls most weeds, grasses, sedges or brush species, including hard-to-control broadleaf weeds like dandelion and thistle and grasses such as fescues, bermudagrass, and crabgrass.

This product is absorbed by foliage and moves throughout the plant resulting in destruction of both the treated foliage and its supportive root system. Visual effects are a gradual wilting and yellowing which generally develop in five to ten days and advance to a complete browning or deterioration of foliage and underground plant parts.

This product does not harm adjacent desirable plants that are not sprayed. It has no residual soil activity so plants that are seeded or emerged after application will not be affected.

### WHERE TO APPLY

**Ornamentals:** Apply this product to control undesirable plants growing around ornamentals, trees or shrubs. Spray contact, other than with mature bark of desirable plants may cause injury.

**Trimming and Edging:** Apply this product to control undesirable plants growing along the edges or in cracks or crevices of sidewalks, driveways, curbs, patios or similar areas.

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- Sweetcorn
- Root crops such as beets, onions, potatoes, radishes and turnips.
- Leafy vegetables such as cabbage, lettuce and spinach.
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**General Weed Control:** Apply this product to control undesirable plants growing in fences, around physical ornaments, buildings, tool sheds or other areas where control is desired.

### WHEN TO APPLY

Apply this product when weeds, grasses or undesirable plants are actively growing. Performance may be reduced if weeds are wilted, have insect damage, or have recently been clipped or mowed. Adequate foliage must be present to receive the spray.

If rainfall occurs within six hours after application, the product may be washed off treated foliage requiring a repeat application.

Avoid making application during windy conditions that may result in spray drift to desirable plants.

### HOW TO APPLY

This product is supplied ready to use without further mixing or dilution. It should be applied using the applicator-container as a foliage spray to weeds and grasses. Do not add water or other materials to the product.

Spray directly on the foliage of weeds or other undesirable plants. The spray should be directed and the nozzle tip adjusted so that only undesirable plants receive spray. The sprayer tip should be held approximately six inches from the foliage. Coverage should be complete and uniform stopping just before the spray begins to drip or run off the foliage.

Avoid spray contact with desirable plants. If desirable plants are accidentally sprayed, injury may be reduced or prevented by thoroughly flushing with water immediately.

Treated plants should not be mowed or disturbed by tillage, digging or slicing for seven days after application to allow time for the product to be absorbed and moved to the root systems.

NOTE: Use of this product in any manner not consistent with the label may result in injury to persons, animals, desirable plants or other unintended consequences. Keep container closed to prevent spills and contamination.

EPA Est. 524-LA-1 2005/53 - 3-9-79

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

U.S. Pat. No. 3,799,758 covers use.
Other patents are pending.
©MONSANTO COMPANY 1979

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63166 U.S.A.

### PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals

Keep out of reach of children.

**CAUTION!**

MAY CAUSE EYE IRRITATION.

Avoid contact with eyes.

FIRST AID: IN CASE OF EYE CONTACT, flush with plenty of water for at least 15 minutes. Call a physician. Flush skin with water. Wash clothing before reuse.

#### Environmental Hazards

Keep out of lakes, streams and ponds. Do not contaminate water by disposal of waste or cleaning of equipment.

#### Storage and Disposal

Avoid contamination of seed, feed, and foodstuffs.

Do not reuse container, destroy when empty.

### LIMIT OF WARRANTY AND LIABILITY

This company warrants that this product is reasonably fit for the purposes set forth in the Directions for Use, when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE.

Buyer and all users shall promptly notify this company of any claims. Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this company, including, but not limited to, application in any manner not explicitly set forth in the Directions. THE LIMIT OF LIABILITY OF THIS COMPANY SHALL NOT EXCEED THE PURCHASE PRICE OF THIS PRODUCT. IN NO EVENT SHALL THIS COMPANY BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

ACCEPTED
2 6 FEB 1980
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under
EPA Reg. No. 524-330

BEST DOCUMENT AVAILABLE

Convenient Spray Applicator

# SHACKLE®

## Weed and Grass Controller

**Controls most unwanted plants and their roots.**

**Doesn't affect the soil.**

EPA Reg. No. 524-330

Active Ingredient:
Glyphosate, Isopropylamine Salt of
N-(Phosphonomethyl)Glycine .. 0.96%
Inert Ingredients: ..... 99.04%
100.00%

CAUTION! Read precautions on back panel.
Keep out of reach of children.

NET 1 qt (32 fl oz)

Read the entire label.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in any manner inconsistent with its labeling.

When used as directed, this product controls most weeds, grasses, sedges or brush species, including hard-to-control broadleaf weeds like dandelion and thistle and grasses such as fescues, bermudagrass, and crabgrass.

This product is absorbed by foliage and moves throughout the plant resulting in destruction of both the treated foliage and its supportive root system. Visual effects are a gradual wilting and yellowing which generally develop in five to ten days and advance to a complete browning or deterioration of foliage and underground plant parts.

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## WHERE TO APPLY

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## HOW TO APPLY

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Avoid spray contact with desirable plants. If desirable plants are accidentally sprayed, injury may be reduced or prevented by thoroughly flushing with water immediately.

Treated plants should not be mowed or disturbed by tillage, digging or slicing for seven days after application to allow time for the product to be absorbed and moved to the root systems.

NOTE: Use of this product in any manner not consistent with the label may result in injury to persons, animals, desirable plants or other unintended consequences. Keep container closed to prevent spills and contamination.

EPA Est. 524-LA-1 2005/53 - 3-9-79

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

U.S. Pat. No. 3,799,758 covers use.
Other patents are pending.
©MONSANTO COMPANY 1979

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63166 U.S.A.

## PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals

Keep out of reach of children.

### CAUTION!

MAY CAUSE EYE IRRITATION.

Avoid contact with eyes.

FIRST AID: IN CASE OF EYE CONTACT, flush with plenty of water for at least 15 minutes. Call a physician. Flush skin with water. Wash clothing before reuse.

### Environmental Hazards

Keep out of lakes, streams and ponds. Do not contaminate water by disposal of waste or cleaning of equipment.

### Storage and Disposal

Avoid contamination of seed, feed, and foodstuffs.

Do not reuse container, destroy when empty.

### LIMIT OF WARRANTY AND LIABILITY

This company warrants that this product is reasonably fit for the purposes set forth in the Directions for Use, when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE.

Buyer and all users shall promptly notify this company of any claims. *Buyer and all users are responsible* for all loss or damage from use or handling which results from conditions beyond the control of this company, including, but not limited to, application in any manner not explicitly set forth in the Directions. THE LIMIT OF LIABILITY OF THIS COMPANY SHALL NOT EXCEED THE PURCHASE PRICE OF THIS PRODUCT. IN NO EVENT SHALL THIS COMPANY BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

ACCEPTED
20 Feb 1980
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the product named, and accompanying labeling.
EPA Reg. No. 524-330

BEST DOCUMENT AVAILABLE

OMB Approval No. 2000-0468

| FIFRA SECTION 3(C)(2)(B) SUMMARY SHEET | EPA REGISTRATION NO. 524-330 |
|---|---|
| PRODUCT NAME: Shackle® Herbicide | |
| APPLICANT'S NAME: Monsanto Company | DATE GUIDANCE DOCUMENT ISSUED: August 11, 1986 |

With respect to the requirement to submit "generic" data imposed by the FIFRA section 3(C)(2)(B) notice contained in the referenced Guidance Document, I am responding in the following manner:

☒ 1. I will submit data in a timely manner to satisfy the following requirements. If the test procedures I will use deviate from (or are not specified in) the Registration Guidelines or the Protocols contained in the Reports of Expert Groups to the Chemicals Group, OECD Chemicals Testing Programme, I enclose the protocols that I will use:

☐ 2. I have entered into an agreement with one or more other registrants under FIFRA section 3(C)(2)(B)(ii) to satisfy the following data requirements. The tests, and any required protocols, will be submitted to EPA by:

NAME OF OTHER REGISTRANT

☐ 3. I enclose a completed "Certification of Attempt to Enter Into an Agreement with Other Registrants for Development of Data" with respect to the following data requirements:

☐ 4. I request that you amend my registration by deleting the following uses (this option is not available to applicants for new products).

☐ 5. I request voluntary cancellation of the registration of this product. (This option is not available to applicants for new products.)

| REGISTRANT'S AUTHORIZED REPRESENTATIVE | SIGNATURE | DATE |
|---|---|---|
| Thomas F. Armstrong | Thomas F. Armstrong | 11/7/86 |

EPA Form 0580-1 (10-82)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Monsanto Representative picked-up Aug 11, 1986

CERTIFIED MAIL

AUG 11 1986

OFFICE OF PESTICIDES AND TOXIC SUBSTANCES

Monsanto Company
1101 17th Street, N. W.
Washington, D. C. 20036

SUBJECT: Initiation of Reregistration Process for Pesticide Products Containing Glyphosate as the Single Active Ingredient

Dear Registrant:

In accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, EPA's Office of Pesticide Programs has begun the reregistration process for pesticide products containing the subject ingredient. Significant changes to the statute were made in 1972, 1975, and 1978; thus, current requirements may be substantially different from those in effect at the time your product(s) were registered. The first phase of reregistration requires that you submit certain product-specific data, revised product labeling, and associated information.

This mailing contains the Guidance Document for preparation of submissions, as well as a listing of your affected product(s) (Attachment A), and a separate list of registrants with products subject to this standard and which contain this active ingredient (Attachment B). The latter list is for the purpose of cooperative data development.

The Guidance Document sets out the Agency's evaluation of all available data pertaining to the subject chemical and its registered uses, and its rationale for the regulatory actions being taken at this time. Additionally, the Guidance Document contains instructions describing certain of the steps you must take to maintain registration for your product(s). Products not brought into compliance with the Guidance Document will be subject to suspension and/or cancellation.

Specifically, the enclosed Guidance Document does the following:

1. Describes the purpose of this document.

2. Explains the Agency's policy regarding data submission and identifies, in table format, the data that must be submitted to complete the Agency's evaluation of each end use product. In addition, a bibliography identifying the data which is considered part of the data base supporting the registration standard is included.

3. Sets out timeframes for submission of required data.

4. Explains how to revise labeling for end use products.

5. Provides submission instructions.

Because of the variety and complexity of the requirements, and the short statutory timeframes available for certain actions, it is essential that you understand the specific requirements and procedures in order that you may respond in a correct and timely manner. Since a part of these requirements is under Section 3(c)(2)(B) of FIFRA, your first response may be required within 90 days from receipt of this letter. Please note that <u>if you do not respond or do not comply fully with the requirements, your application may be rejected or your product registration cancelled or suspended</u>.

If, after reviewing this material, you do not understand what you must do or how or when you must respond, please contact the Product Manager listed below who will assist you in every reasonable way. If you wish to discuss the data requirements or request that certain data be waived, you must write to the Agency and indicate those data requirements with which you take issue and your rationale for doing so. After the Agency has had a chance to review your submission, the Product Manager will contact you to set up a meeting for the purpose of resolving all issues relative to data requirements.

If you have any questions concerning this Guidance Document, you may contact the Product Manager listed below:

Robert J. Taylor
Product Manager 25
Registration Division (TS-767)
Office of Pesticide Programs
Environmental Protection Agency
Washington, D.C. 20460
Telephone 703/557-1800

Sincerely,

James Akerman

James Akerman Acting Director
Registration Division (TS-767)

Enclosure

ATTACHMENT A

PRODUCTS AFFECTED BY THIS
REREGISTRATION PROCESS

Following is a list of your products affected by this reregistration process. If this list is incomplete or inaccurate in any way, please notify the Product Manager (PM) identified in the letter.

| EPA Registration Number | Product Name |
|---|---|
| 524-308 | Roundup Herbicide |
| 524-330 | Shackle |
| 524-332 | Polado Plant Growth Regulator |
| 524-343 | Rodeo Herbicide |
| 524-370 | Roundup L&G Formulation |
| 524-326 | CR-70139 (accord) |
| 524-341 | Bronco (Mixture) |
| 524-351 | Landmaster (Mixture) |
| 524-376 | Landmaster II (Mixture |
| 524-382 | Ranger |

ATTACHMENT B

REGISTRANTS WITH PESTICIDE PRODUCTS CONTAINING THE ACTIVE INGREDIENT

The information attached will allow registrants with pesticide products containing the above ingredient to contact one another regarding joint data development or sharing the cost of data development under section 3(c)(2)(B) of FIFRA. This information includes the following: EPA Reg. No., company name, company address, active ingredient, percentage of active ingredient and type of formulation, such as Manufacturing-Use Product (MP), Technical Product (TP), Wettable Powder (WP), and Emulsifiable Concentrate (EC).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

MAY 28 1986

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

yellow copy

Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Attention: Robert W. Street

Gentlemen:

Subject: Roundup Herbicide (One-year Dog)
EPA Registration No. 524-308
Shackle
EPA Registration No. 524-330
Polado Plant Growth Regulator
EPA Registration No. 524-332
Shackle C
EPA Registration No. 524-339
Rodeo Herbicide
EPA Registration No. 524-343
Landmaster Herbicide
EPA Registration No. 524-351
Roundup L & G Herbicide
EPA Registration No. 524-370
Your Letter Dated October 17, 1986

The scientific review and evaluation of the dog study have been completed. The following are our conclusions and/or comments.

1. The absolute and relative weights of the mid- and high-dose dogs are suggestive of a possible compound-related effect.

2. The tentative NOEL is 20 mg/kg/day (low dose).

3. Other studies with glyphosate do not show compound-related effects in the pituitary. The pituitary findings and the relationship to treatment must be fully addressed.

4. This study is tentatively classified as Guideline data.

Sincerely yours,

RJW

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

NOV 18 1985

Monsanto Company
1101 17th Street NW.
Washington, DC 20036

Attention: Robert W. Street

yellow copy

Gentlemen:

Subject: Roundup Herbicide (One-Year Dog Study)
EPA Registration No. 524-308
Shackle
EPA Registration No. 524-330
Polado Plant Growth Regulator
EPA Registration No. 524-332
Shackle C
EPA Registration No. 524-339
Rodeo Herbicide
EPA Registration No. 524-343
Landmaster Herbicide
EPA Registration No. 524-351
Your Letter of October 17, 1985

We have your letter of October 17, 1985 transmitting a one-year dog study in support of the subject registrations. Further action will await completion of scientific review and evaluation.

The accession number assigned these data is 260021.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

October 17, 1985

Director
Registration Division (TS767C)
Office of Pesticide Programs
U.S. Environmental Protection Agency
1921 Jefferson Davis Highway
Arlington, Virginia 22201

Attention: Mr. Robert J. Taylor
Product Manager (25)

SUBJECT: Roundup® Herbicide, Rodeo® Herbicide, Landmaster® Herbicide, Shackle® Herbicide, Shackle®C Herbicide, and Polado Plant Growth Regulator, EPA Reg. Nos. 524-308, 524-330, 524-351, 524-339, 524-332, 524-343.

Submission of a One-Year Toxicology Study in Dogs with Glyphosate.

260021

Dear Sir:

At this time, Monsanto Company submits the final report of a toxicology study titled: "Twelve Month Study of Glyphosate Administered by Gelatin Capsule to Beagle Dogs." This report is submitted in one volume designated RD #636, MSL 5069, and dated October 17, 1985. This study replaces a two-year study conducted by Industrial Biotest Laboratory and ruled invalid by the EPA on August 10, 1982.

Please inform us of the accession number assigned to this submission.

Sincerely,

Robert W. Street

Robert W. Street
Manager, Product Health and
Safety Information

/ss

cc: L. L. Gingerich

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Monsanto Company
1101 17th Street NW.
Washington, DC 20036

NOV 18 1985

Attention: Thomas F. Armstrong

yellow copy

Gentlemen:

Subject: Roundup Herbicide (Additional Information on Mouse Oncogenicity Study)
EPA Registration No. 524-308
Shackle
EPA Registration No. 524-330
Polado Plant Growth Regulator
EPA Registration No. 524-332
Shackle C
EPA Registration No. 524-339
Rodeo Herbicide
EPA Registration No. 524-343
Landmaster Herbicide
EPA Registration No. 524-351
Your Letter of October 28, 1985

We have your letter of October 28, 1985 transmitting an addendum to the mouse study in support of the subject registrations. Further action will await completion of scientific review and evaluations.

The accession number assigned the data is 260023.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880
October 28, 1985

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup® Herbicide
EPA Reg. Nos.
524-308, 524-330, 524-332,
524-339, 524-343, 524-351
Addendum to Chronic Mouse
Study with Glyphosate
• Additional Evaluations

Dear Sir:

On July 21, 1983, Monsanto submitted a glyphosate chronic mouse study entitled "A Chronic Feeding Study Of Glyphosate (Roundup® Technical) In Mice (R.D. No. 480 and accession numbers 251007-251014). Subsequently, on July 29, 1985, the Agency requested Monsanto to recut the male mouse kidneys to obtain further information on the presence or absence of kidney tumors. This additional work was completed and submitted on October 7, 1985 to the Agency (R.D. No. 635). It is important to note that these additional data confirm Monsanto's initial position of no treatment related oncogenic effects.

Due to the importance of this chronic mouse study to Monsanto, we requested noted experts (4 individual experts and a consultant panel) to also review these data. They were requested to determine if the effects observed could be considered to be a treatment related oncogenic effect. The conclusions reached by these experts are now being submitted (R.D. No. 643) for Agency information and file use.

RECEIVED
11/1/85

The review results from the independent evaluations of the glyphosate chronic mouse study are the same. Their conclusion is the data reveals no statistically significant difference between any of the treated and control groups, and no statistically significant trend is present.

Based on this information and the previously submitted information which demonstrated that glyphosate did not show a treatment-related oncogenic effect in this chronic mouse study, Monsanto is hopeful that the Agency will reach the same conclusion. In addition, we request that the review of all pending glyphosate petitions now be completed as soon as possible.

Sincerely,

Tom Armstrong

Thomas F. Armstrong
Registration Manager

/pt
Enclosures

cc: L. L. Gingerich

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Monsanto Company
1101 17th Street NW.
Washington, DC 20036

yellow copy

Attention: Thomas F. Armstrong

NOV 18 1985

Gentlemen:

Subject: Roundup Herbicide (Product Chemistry Data)
EPA Registration No. 524-308
Shackle
EPA Registration No. 524-330
Polado Plant Growth Regulator
EPA Registration No. 524-332
Shackle C
EPA Registration No. 524-339
Rodeo Herbicide
EPA Registration No. 524-343
Landmaster Herbicide
EPA Registration No. 524-351
Your Letter of October 14, 1985

We have your letter of October 14, 1985 transmitting product chemistry data in support of the subject registrations. This information has been added to the files. The accession number assigned these data is 260020.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

October 14, 1985

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup® Herbicide
EPA Reg. Nos. 524-308,
524-330, 524-332, 524-339,
524-343, 524-351, 524-370
Submission of Additional
Glyphosate Product Chemistry
Data.

Dear Sir:

At this time, Monsanto Company submits the "Selected Product Chemistry Data to Support the Continued Registration of Glyphosate (N-Phosphonomethylglycine)" study (R.D. No. 640) as additional Product Chemistry data to support Roundup®, Shackle®, Shackle® C, Landmaster®, Roundup® L & G, Rodeo®, and Polado® Plant Growth Regulator herbicides' registrations.

Please inform me of the accession number assigned to this submission. If you have any questions about this submission, please contact Lyle Gingerich or me.

Sincerely,

Tom Armstrong

Thomas F. Armstrong
Registration Manager

/pt
Enclosures

cc: L. L. Gingerich

RECEIVED
10/16/85

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Monsanto Company
1101 17th Street NW.
Washington, DC 20036

yellow copy

OCT 16 1985

Attention: Thomas F. Armstrong

Gentlemen:

Subject: Roundup Herbicide (Recut Slides for Chronic Mouse Study)
EPA Registration No. 524-308
Shackle
EPA Registration No. 524-330
Polardo Plant Growth Regulator
EPA Registration No. 524-332
Shackle
EPA Registration No. 524-339
Rodeo Herbicide
EPA Registration No. 524-343
Landmaster Herbicide
EPA Registration No. 524-351
Your Letter of October 7, 1985

We have your letter of October 7, 1985, transmitting an addendum to the chronic mouse study. Further action will await completion of scientific review and evaluation.

The Accession Number assigned these data is 259621.

Sincerely yours,

Robert J. Taylor VKW
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880
October 7, 1985

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup® Herbicide
EPA Reg. Nos.
524-308, 524-330, 524-332,
524-339, 524-343, 524-351
Addendum to Chronic Mouse
Study with Glyphosate.

Dear Sir:

Due to the Agency's continuing concern relative to the incidence of kidney tumors in the chronic mouse study with glyphosate, the Agency requested (in their July 29, 1985 letter) Monsanto to have the glyphosate chronic mouse study kidneys systematically and uniformly recut to obtain further information on the presence or absence of these kidney tumors.

To comply with the Agency's July 29, 1985 request, Monsanto is now submitting a "Pathology Report on Additional Kidney Sections Addendum to Final Report dated July 21, 1983" report (RD No. 635). Please inform us of the petition and accession numbers assigned to this submission.

In summary, the EPA requested review of the recut kidney sections revealed the following:

> Confirmation of diagnosis for the original renal tubular adenomas was made, including concurrence with Dr. Marvin Kuschner on the presence of a lesion in the control group which represented a developing tumor. No new tumors were found in any of the control or treated groups. Thus, the

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10/8/85

overall incidence of renal tubular adenomas in control, low, mid, and high dose groups was 1/49, 0/49, 1/50, 3/50, respectively. Statistical analysis of this data reveals no statistically significant difference between any of the treated and control groups, and no statistically significant trend.

In conclusion, a thorough evaluation of the kidneys of male mice exposed to dietary levels of glyphosate of 1,000, 5,000, and 30,000 ppm for 24 months revealed no evidence of chemically-induced nephrotoxicity. The renal tumors observed were considered to be incidental and not toxicologically significant.

Based on this information and the previously submitted information which demonstrated that glyphosate did not show a treatment-related oncogenic effect in this chronic mouse study, Monsanto is hopeful that the Agency will reach the same conclusion. In addition, we request that the review of all pending glyphosate petitions now be completed.

Sincerely,

Thomas Armstrong

Thomas F. Armstrong
Registration Manager

/pt
Enclosures

cc: L. L. Gingerich

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D C 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

JAN 23 1985

yellow copy

Monsanto Company
1101 17th Street, NW
Washington, DC 20036

Attention: Tom Armstrong

Gentlemen:

Subject: Roundup Herbicide (Cattle Palatability Study)
EPA Registration No. 524-308
Shackle Herbicide
EPA Registration No. 524-330
Shackle C Herbicide
EPA Registration No. 524-339
Polado Herbicide
EPA Registration No. 524-332
Rodeo Herbicide
EPA Registration No. 524-343
Your Letter of August 30, 1984

The scientific review and evaluation of the study submitted have been completed. The following are our comments and/or conclusions:

1. The feeding of concentrate diet did not result in any significant differences in feed consumption, milk production or animal health or behavior.

2. The Milk and Meat Residue Study with glyposate and aminomethylphosphonic acid is now considered valid.

Sincerely yours,

Robert J. Taylor VRW
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

JAN 4 1985

MEMORANDUM

SUBJECT: RCB Review of IBT Validation Report. Milk and Meat Residue Study with Glyphosate and Aminomethylphosphonic Acid.IBT #651-3775. Addendum of 9/10/84.

FROM: Edward Zager, Section Head,
Special Registration Section 2
Residue Chemistry Branch,
Hazard Evaluation Division (TS-769)

Edward Zager

TRU: Charles L. Trichilo, Ph.D., Chief
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

To: Vicki Walters
PM-25, Registration Division (TS-767)

RCB classified IBT study #651-3775 as invalid due to the lack of feed consumption data. We expressed particular concern that the addition of the glyphosate:aminomethylphosphonic acid mixture to the diet rendered it unpalatable thus causing the amount of test material consumed by the cows to be significantly less than stated in the protocol.

To validate the study, Monsanto has now submitted the results of a study in which 3 lactating dairy cattle received concentrate diets fortified with 400 ppm glyphosate and aminomethylphosphonic acid in a 3:1 ratio. Three controls were administered non-fortified diets. The feeding of concentrate diets did not result in any significant differences in feed consumption, milk production or animal health or behavior.

RCB now considers the Milk and Meat Residue Study with Glyphosate and Aminomethylphosphonic Acid to be valid.

cc:R.F., Circu, Reviewer, S.F. (Glyphosate)
TS-769:E. Zager:Revised by:wh:1/4/84

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT - 2 1984

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Monsanto Company
1101 17th Street, NW.
Washington, DC 20036

yellow copy

Attention: Tom Armstrong

Gentlemen:

Subject: Roundup Herbicide (Cattle Palatability Study)
EPA Registration No. 524-308
Shackle Herbicide
EPA Registration No. 524-330
Shackle C Herbicide
EPA Registration No. 524-339
Palado Herbicide
EPA Registration No. 524-332
Rodeo Herbicide
EPA Registration No. 524-343
Your Letter of August 30, 1984

We have your letter of August 30, 1984, transmitting a cattle palatability study in support of the subject registrations. Further action will await completion of scientific review and evaluation.

The accession number assigned the subject data is 254642.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone (202) 452-8880

August 30, 1984

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup® Herbicide
EPA Reg. No. 524-308
Submission of Glyphosate
Cow Palatability Study.
Report Number: MSL-3636.

Dear Sir:

At this time, Monsanto Company submits "The Palatability of A Glyphosate and Aminomethylphosphonic Acid Spiked Diet Concentrate When Fed to Lactating Dairy Cows" study. This study is submitted as a reply to an earlier EPA request (March 26, 1981) by Edward Zager concerning validation of a previously submitted glyphosate feeding study (see attached Zager memo).

This study demonstrated that feeding cattle a diet fortified with glyphosate and AMPA did not result in any observable rejection of the feed diet by the cattle.

Please inform me of the accession number assigned to this submission.

Sincerely,

Tom Armstrong

Thomas F. Armstrong
Registration Manager

/pt
Enclosures

cc: L. L. Gingerich

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT - 2 1984

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

yellow copy

Monsanto Company
1101 17th Street, NW.
Washington, DC 20036

Attention: Tom Armstrong

Gentlemen:

Subject: Roundup Herbicide (Cattle Palatability Study)
EPA Registration No. 524-308
Shackle Herbicide
EPA Registration No. 524-330
Shackle C Herbicide
EPA Registration No. 524-339
Palado Herbicide
EPA Registration No. 524-332
Rodeo Herbicide
EPA Registration No. 524-343
Your Letter of August 30, 1984

We have your letter of August 30, 1984, transmitting a cattle palatability study in support of the subject registrations. Further action will await completion of scientific review and evaluation.

The accession number assigned the subject data is 254642.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

# Monsanto

Monsanto Company
1101 17th Street, N W
Washington, D C 20036
Phone (202) 452-8880

August 30, 1984

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup® Herbicide
EPA Reg. No. 524-308
Submission of Glyphosate
Cow Palatability Study.
Report Number: MSL-3636.

Dear Sir:

At this time, Monsanto Company submits "The Palatability of A Glyphosate and Aminomethylphosphonic Acid Spiked Diet Concentrate When Fed to Lactating Dairy Cows" study. This study is submitted as a reply to an earlier EPA request (March 26, 1981) by Edward Zager concerning validation of a previously submitted glyphosate feeding study (see attached Zager memo).

This study demonstrated that feeding cattle a diet fortified with glyphosate and AMPA did not result in any observable rejection of the feed diet by the cattle.

Please inform me of the accession number assigned to this submission.

Sincerely,

Tom Armstrong

Thomas F. Armstrong
Registration Manager

/pt
Enclosures

cc: L. L. Gingerich

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 18 1984

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Monsanto Company
1101 17th Street, NW.
Washington, DC 20036

Attention: Robert W. Street

Gentlemen:

Subject: Roundup Herbicide (Additional Information on Mouse Oncogenicity Study)
EPA Registration No. 524-308
Shackle Herbicide
EPA Registration No. 524-330
Shackle C Herbicide
EPA Registration No. 524-339
Polordo Herbicide
EPA Registration No. 524-332
Rodeo Herbicide
EPA Registration No. 524-343
Your Letter of March 20, 1984

We have your letter of March 20, 1984, transmitting additional information on the mouse oncogenicity study submitted previously in support of the subject registrations. Further action will await completion of scientific review and evaluation.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

# Monsanto

Monsanto Company
1101 17th Street, N. W.
Washington, D. C. 20036
Phone: (202) 452-8860

March 20, 1984

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Roundup® Herbicide
EPA Reg. No. 524-308
Additional Information Relating
to Chronic Mouse Study,
BD-77-420

Dear Sir:

On July 29, 1983, Monsanto submitted to the Agency an eight volume report entitled "A Chronic Feeding Study of Glyphosate in Mice," BD-77-420. The accession numbers 251007-251014 were assigned to this submission.

Several weeks ago the Agency requested verbally that we provide historical data for the incidence of renal tubular adenomas in control groups in comparable studies conducted by Bio/dynamics, Inc.

Enclosed with this letter are the requested historical control data. In addition, we have enclosed historical control data from Hazleton Laboratories and International Research and Development Corp. In summary, the data show the following:

a) In the seven studies at Bio/dynamics, listed as studies A-G on the attached table, renal tubular adenomas were observed in the control group in two studies, A (1/54 or 1.9%), and E (2/60 or 3.3%). These studies were conducted during 1978-1981 timeframe.

RECEIVED

b) The control group incidence in comparable studies conducted by International Research and Development was 0-1.4%.

c) The incidence in control group mice at Hazleton has been as high as 7.1% (1/14.)

As stated in Dr. Dirks's summary of the chronic mouse study with glyphosate, we consider the slightly increased incidence of adenomas in this study to be spurious and unrelated to treatment. This position is based on the following points:

a) The lesion was observed only in males.

b) The incidence in either the high- or mid-dose groups was not statistically different from control and there was not a statistically significant dose-treatment relationship.

c) Historical control data from Bio/dynamics and other laboratories indicate that these lesions do occur occasionally in comparable ranges.

We hope this information resolves any concern you may have had relative to this issue. If you should have any additional questions, please feel free to contact me or our Washington office.

Sincerely,

Robert W. Street

Robert W. Street
Manager, Product Health
and Safety Information

RWS/jr

cc: Mr. L. L. Gingerich

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

10 FEB 1984

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Monsanto Company
1101 17th Street, NW.
Washington, DC. 20036

Attention: Robert W. Street

Gentlemen:

Subject: Roundup Herbicide(Dermal Sensitization
and Dermal Absorption Studies)
EPA Registration No. 524-308
Shackle Herbicide
EPA Registration No. 524-330
Shackle C Herbicide
EPA Registration No. 524-339
Polodo Herbicide
EPA Registration No. 524-332
Rodeo Herbicide
EPA Registration No. 524-343
Pesticide Petition No. 2F2680 (Coconut)
Pesticide Petition No. 3F2809 (Wheat)
Your letter of January 3, 1984

We have your letter of January 3, 1984, transmitting dermal sensitization and dermal absorption studies in support of the subject registrations. Further action will await completion of scientific review and evaluation.

The accession number assigned the data is 252142.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

Enclosure

# Monsanto

Monsanto Company
1101 17th Street, N. W.
Washington, D. C. 20036
Phone: (202) 452-8860
January 3, 1984

Director
Registration Division (TS-767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Arlington, Virginia 22202

Subject: Roundup® Herbicide
EPA Registration No. 524-308
Dermal Sensitization and
Dermal Absorption Studies

Dear Sir:

At this time, Monsanto Company submits four toxicology studies with Roundup herbicide and glyphosate in support of the registration of Roundup herbicide. These studies, listed below, are compiled in one volume identified as R.D. 515, MSL-3279, and dated December 20, 1983.

| | Study | Relates to |
|---|---|---|
| 1. | A Dermal Sensitization Study in Guinea Pigs With Roundup Formulation, BD-83-007 | 40 CFR 163.81-6 |
| 2. | A Dermal Sensitization Study in Guinea Pigs With Glyphosate, BD-83-008 | 40 CFR 163.81-6 |
| 3. | Dermal Absorption of $^{14}C$-Glyphosate in Rhesus Monkeys, MA-81-349 | Supplementary |
| 4. | Evaluation of Percutaneous Absorption of Roundup Formulation in Man Using an *In Vitro* Technique, UW-81-346 | Supplementary |

RECEIVED

Since these reports, in the opinion of Monsanto Company, constitute trade secret and/or confidential or proprietary information, we request that the EPA treat this information accordingly. Please inform us of the accession number assigned to this submission.

Sincerely,

Robert W. Street

Robert W. Street
Manager, Product Health
and Safey Information

RWS:jr

cc: Mr. L. L. Gingerich

Monsanto Company
1101 17th Street, NW.
Washington, DC 20036

DEC - 5 1983

Attention: S. L. Kimball

Gentlemen:

Subject: Roundup Herbicide (Mouse Oncogenicity Study)
EPA Registration No. 524-308
Shackle Herbicide
EPA Registration No. 524-330
Shackle C Herbicide
EPA Registration No. 524-339
Polado Herbicide
EPA Registration No. 524-332
Rodeo Herbicide
EPA Registration No. 524-343
Your Submission of August 17, 1983

This acknowledges receipt of your mouse oncogenicity study on glyphosate. Further action will await completion of scientific review and evaluation.

The accession numbers assigned the data are as follows:

| | |
|---|---|
| Volume 1 of 8 | 251007 |
| Volume 2 of 8 | 251008 |
| Volume 3 of 8 | 251009 |
| Volume 4 of 8 | 251010 |
| Volume 5 of 8 | 251011 |
| Volume 6 of 8 | 251012 |
| Volume 7 of 8 | 251013 |
| Volume 8 of 8 | 251014 |

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

DCR-04333:RD-24:12/01/83:KIM:Del.12/16/83

CONCURRENCES

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL ▶ | TS-767 | | | | | | | |
| SURNAME ▶ | VKWalker | | | | | | | |
| DATE ▶ | 12/6/83 | | | | | | | |

EPA Form 1320-1 (4-81) OFFICIAL FILE COPY

NOV 28 1983

Monsanto Company
1101 17th Street, NW.
Washington, DC 20036

Attention: S. L. Kimball

Gentlemen:

Subject: Shackle Herbicide (Shackle/glyphosate data inventory to conform with PR Notice 83-4)
EPA Registration No. 524-330
Your Letter Dated September 12, 1983

We have your letter of September 12, 1983, transmitting the data inventory for the subject product. We have added this information to the files. The accession number assigned this volume is 251261.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

DCR-10908:RD-7:11/21/83:KIM:Del:12/3/82

| CONCURRENCES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL ▶ | | | | | | | | |
| SURNAME ▶ | | | | | | | | |
| DATE ▶ | | | | | | | | |

EPA Form 1320-1 (4-81)

OFFICIAL FILE COPY

# Monsanto

Monsanto Company
1101 17th Street, N. W.
Washington, D. C. 20036
Phone: (202) 452-8860

September 12, 1983

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Shackle Herbicide
EPA Reg. No. 524-330
Submission of a Shackle/glyphosate data inventory to conform with the PR 83-4 Interim Registration Procedures. 251261

Dear Sir:

Pursuant to the interim registration procedures of PR Notice 83-4, we hereby submit an inventory of the data that supports the registration of Shackle herbicide. This data inventory is organized to conform with the data requirements as outlined in 40 CFR 158.

Please note the following comments about this new data inventory:

1. The references for product chemistry (158.120) include several "gaps". We believe that for the following reasons their requirement should be temporarily waived.

   The proposed data requirements for registration (40 CFR 158) were published on 11/24/82. Shortly thereafter, Monsanto began developing a new data base for product chemistry that conforms to the requirements of part 158. This data package will be completed by mid-1984 and submitted to the Agency. We believe that it is reasonable to allow this amount of time to respond to the revised requirements and, hence, request that the product chemistry data presently on file with the Agency be accepted to support proposed registrations until the new studies are completed.

To comply with the requirements of PR 83-4 which are presently impeding glyphosate registrations, we have obtained a letter of certification/data authorization from Chevron, the only other data submitter of record for glyphosate. A copy of their letter is enclosed in the data inventory book.

2. The data format used in part 158 does not include identification of certain data that are important for overall support of the product registration (e.g., applicator exposure studies). We have conformed to the requirements of PR 83-4 by submitting a data inventory under the part 158 format, but have for certain requirements included appendicies of supporting data. Moreover, we have included a copy of the previously used data references which list additional studies that support the registration.

This data inventory document includes all of the data which would be referenced to support a registration for Shackle or a like product. Because future registration applications will rely on it, we request that it be filed under a specific accession number that can then be referenced with each application. Also, we will be updating this document as new data are submitted and a specific accession number will permit specific filing instructions for the revised data references.

Please let us know the accession number under which this submission is filed. If you have questions or comments about this data inventory, please contact me.

Sincerely,

S L Kimball

Steven L. Kimball
Registration Manager

/pt
Enclosure

cc: C. T. Dickerson/L. L. Gingerich

AUG 16 1983

Monsanto Company
1101 17th Street, NW.
Washington, DC 20036

Attention: Robert W. Street

Gentlemen:

Subject: Shackle Herbicide (Acute Eye Irritation Study)
EPA Registration No. 524-330
Your Letter of April 15, 1983

The scientific review and evaluation of the data submitted above have been completed. The following are our comments and/or conclusions.

1. The study is classified as core-minimum data and is acceptable to support registration.

2. For future submissions, please note that 9 animals (6 with treated unwashed eyes and 3 with treated washed eyes) must be used.

3. The appropriate toxicity category for this study is IV-CAUTION.

4. Based on this study and previously reviewed studies, the appropriate signal word is CAUTION.

5. The following label revisions are needed.

   a. The "Keep Out of Reach of Children" statement must precede the signal word.

   b. The statement "Keep out of lakes, streams, and ponds" must be revised to read "Do not apply directly to water."

   c. The "Storage and Disposal" statements should be updated to conform with PR Notice 83-3.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

RD:TAYLOR:DCR-17036:WANG-0813C:pjb:Raven:479-2023:8/12/83

CONCURRENCES

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL ▶ | | | | | | | | |
| SURNAME ▶ | CPWalker | | | | | | | |
| DATE ▶ | | | | | | | | |

EPA Form 1320-1 (4-81)

OFFICIAL FILE COPY

Rj #2

# SUBMISSION REVIEW RECORD G

| 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED (MO / DAY / YR) |
|---|---|---|
| 524 - 336 | | 04 / 21 / 83 |

| 3. 3(c)(2) PUBLICATION NECESSARY | 4. PETITION NO. | 5. RECEIVED PM TEAM (MO / DAY / YR) |
|---|---|---|
| ☐ YES ☐ NO | | |

| 6. METHOD OF SUPPORT | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN (MO / DAY / YR) |
|---|---|---|---|
| ☐ 2A ☐ 2B ☐ 2C | Tyler | 25 | 06 / 23 / 83 |

| 9. DATE PULLED | 10. DATE PUBLISHED | 11. ACTION TYPE | CODE | 12. OUTGOING DATE (MO / DAY / YR) |
|---|---|---|---|---|
| 5/23/83 | | Replacement Eye Irritation Study ~~400~~ 400 | | 05 / 23 / 83 |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO | DAY | YR |
|---|---|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | | | |
| | F | PRODUCT MANAGER | | UKW | ok | 08 | 11 | 83 |
| | G | INTERAGENCY REFERRAL | | | | | | |
| | H | COST-BENEFIT REVIEW | | | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | | | |
| ✓ | S | TS/PL | DSH | Delaris J. Graham | RL | 06 | 29 | 83 |
| | T | | | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

DATE: June 29, 1983

SUBJECT: EPA Registration Number: 524-330
Shackle Herbicide

FROM: Deloris F. Graham DFG 7/8/83
FAB/TSS E 7/8/83

TO: Robert Taylor
Product Manager (25)

Applicant: Monsanto Agricultural Products Company
800 N. Lindbergh Boulevard
St. Louis, Missouri 63167

Active Ingredient:

Glyphosate Isopropylamine Salt of
N-(Phosphonomethyl) Glycine.....0.96%
Inert Ingredients.....99.04%

Background: Submitted an Eye Irritation Study. Study conducted by Monsanto Company. Data under accession number 250070. Method of support not indicated.

Recommendation:
(1) FHB/ISS finds this study acceptable to support conditional registration of this product. However, for future submissions please note,

(a) In the Eye Irritation study, 9 animals (6 with treated unwashed eyes and 3 with treated washed eyes) must be used.

(2) The appropriate toxicity category for this study is IV-CAUTION.

(3) Based on the studies originally reviewed, November, 1982, and this study the appropriate signal word is CAUTION.

Label:
(1) The "Keep Out of Reach of Children" statement must precede signal word.

(2) The statement "Keep out of lakes, streams and ponds" must be revised to read "Do not apply directly to water."

(3) See enclosed copy for appropriate Storage and Disposal statement.

Review:
(1) Eye Irritation Study: Monsanto Company; Study no. 830012; March 22, 1983.

Procedure: A 0.1 ml dose was instilled into the conjunctival sac of six rabbits (3M, 3F). Observations made at 24, 48 and 72 hours after treatment. One of the female animals died from undetermined causes on the second day after exposure and an additional female rabbit was subsequently placed on test.

Results: At 24 hours, 1/6 had corneal opacity (1/6 = 5); 1/6 discharge (1/6 = 2). Irritation had cleared by day 2.

Study Classification: Core Minimum Data. 9 animals (6 with treated unwashed eyes and three with treated washed eyes) must be used.

Toxicity Category: IV - CAUTION

MAY 27 1983

Monsanto Company
1101 17th Street, NW.
Washington, DC 20036

Attention: Robert W. Street

Gentlemen:

Subject: Shackle Herbicide (Acute Eye irritation study)
EPA Registration No. 524-330
Your Letter Dated April 15, 1983

We have your letter of April 15, 1983 transmitting a replacement acute eye irritation study in support of the subject registration. Further action will await completion of scientific review and evaluation. The accession number assigned this data is 250070.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

TS-767C:TAYLOR:DCR-18125:WANG-0594C:hmw:Raven:479-2013:5/24/83

| CONCURRENCES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYMBOL ▶ | | | | | | | | |
| SURNAME ▶ | | | | | | | | |
| DATE ▶ | | | | | | | | |

EPA Form 1320-1 (4-81) OFFICIAL FILE COPY

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

April 15, 1983

Director
Registration Division (TS 767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Shackle® Herbicide
EPA Reg. No. 524-330
Submission of Acute
Eye Irritation Study
250070

Dear Sir:

On September 30, 1982, Monsanto submitted to the Agency mammalian acute toxicity and irritation studies with Shackle® herbicide in support of the registration of this product. On December 9, 1982, the Agency reported that the scientific review and evaluation of these studies had been completed and that two of the studies, the acute eye irritation (rabbits) and acute inhalation study (rats) were classified as "core supplementary". The Agency also stated that labeling comments would be reserved until acceptable acute inhalation and eye irritation studies were submitted. The EPA letter of December 9, 1982 is attached.

At this time, we are submitting a replacement Primary Eye Irritation Study with Shackle Herbicide. The results of this study indicate that this product is practically nonirritating to the rabbit eye.

On April 7, 1982, Monsanto filed with the EPA an acute inhalation toxicity study in rats with Roundup®. This report was assigned accession number 247188. On January 19, 1983, we filed on amendment

RECEIVED
4/21/83

to this report which indicated that the correct $LC_{50}$ value is 3.18 mg/L versus 3.28 mg/L reported earlier. This amendment was assigned accession number 249381. We believe that this acute inhalation study should also satisfy acute inhalation requirements for Shackle, based on the following rationale.

As stated above, an acute inhalation study with Roundup herbicide has been conducted and the 4-hr $LC_{50}$ was determined to be 3.18 mg/L. Roundup contains 41 percent isopropylamine salt of glyphosate, and Shackle is essentially Roundup diluted with water to a concentration of 0.96% IPA-glyphosate. Thus, Shackle contains more than 98% water and the acute inhalation $LC_{50}$ for Shackle should be equal to or greater than 3.18 mg/L.

Conducting an acute inhalation study on a material consisting of 98+% water should not be necessary because a good assessment of potential acute inhalation hazard has already been obtained. Therefore, in accordance with provisions of §158.145 (47 FR 53201, November 24, 1982) we request that the acute inhalation data requirement for Shackle be waived.

Since the acute eye irritation report, in the opinion of Monsanto Company, constitutes trade secret and/or confidential or proprietary information, we request that your agency treat this information accordingly. Please inform us of the accession number assigned to this report.

If you should have any questions relating to this submission and waiver request, please contact our Washington office.

Sincerely,

Robert W. Street

Robert W. Street
Manager, Product Health
and Safety Information

RWS/jr
Attachment

cc: Dr. D. N. Duncan

DEC - 9 1982

Monsanto Company
1101 17th Street, NW
Washington, DC 20036

Attention: Ms. Glynadee Edwards

Gentlemen:

Subject: Shackle Herbicide (Acute Toxicity Studies)
EPA Registration No. 524-330
Your Letter of September 30, 1982

The scientific review and evaluation of the data submitted above have been completed. The following are our conclusions and/or comments.

1. Acute Oral Toxicity (Rats)

   a. The $LD_{50}$ is greater than 10,000 mg/kg.

   b. This study is classified as core guideline data.

   c. The toxicity category is IV - Caution.

2. Acute Dermal Toxicity (Rabbits)

   a. The $LD_{50}$ is greater than 2,000 mg/kg.

   b. This study is classified as core guideline data.

   c. The toxicity category is III - Caution.

3. Acute Inhalation Toxicity Study (Rats)

   a. This study is classified as core supplementary data.

   b. An actual concentration, not nominal must be used.

4. Eye Irritation Study (Rabbits)

   a. This study is classified as core supplementary data.

   b. Since the animals were only observed for 72 hours and half of the animals still have corneal opacity, the appropriate toxicity category cannot be determined. Nine animals used (6 with treated unwashed eyes and 3 with treated washed eyes).

5. Primary Skin Irritation Study (Rabbits)

   a. The primary irritation index was 0.7.

   b. This study was classified as core guideline data.

   c. The toxicity category is IV - Caution.

Labeling comments

1. Labeling comments are reserved until acceptable acute inhalation and Eye Irritation Studies are submitted.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

RD:TAYLOR:DCR-04008:WANG-1510C:pjb:Raven:479-2013:12/7/82

R/#1

| SUBMISSION REVIEW RECORD G | 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED MO DAY YR |
|---|---|---|---|
| | 524-330 | | 10 01 82 |

| 3. 3CID PUBLICATION NECESSARY | 4. PETITION NO. | 5. RECEIVED PM TEAM MO DAY YR |
|---|---|---|
| ☐ YES ☐ NO | | |

| 6. METHOD OF SUPPORT | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN MO DAY YR |
|---|---|---|---|
| ☐ 2A ☐ 2B ☐ 2C | Taylor | 25 | |

| 9. DATE PULLED | 10. DATE PUBLISHED | 11. ACTION TYPE | CODE | 12. OUTGOING DATE MO DAY YR |
|---|---|---|---|---|
| 10/18/82 | | acute tox tests in support of 2% glyphosate 400 | | |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO DAY YR |
|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | | | | |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | |
| | F | PRODUCT MANAGER | | VKW | obj | 12 06 82 |
| | G | INTERAGENCY REFERRAL | | | | |
| | H | COST-BENEFIT REVIEW | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | |
| ✓ | S | TSS/PL | DFG | Deloris F. Graham | Obj | 11 02 80 |
| | T | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA Form 8570-13 (3-75)

Date: November 2, 1982

Subject: EPA Registration Number : 524-330
Shackle Herbicide

From: Delaris F. Graham
FHB / ISS

E 11/2/82

To: Robert Taylor
Product Manager (25)

Applicant : Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036

Active Ingredient:
Glyphosate, Isopropylamine Salt of
N-(Phosphonomethyl) Glycine . . . . 0.96%
Inert Ingredients . . . . . 99.04%

Background : Submitted Acute Oral, Acute Dermal, Acute Inhalation, Eye Irritation and Primary Dermal Irritation Studies to update the "Shackle Herbicide" file. Studies conducted by Monsanto Company. Data under accession number 248438. Method of support not indicated.

Recommendation
(1) FHB / ISS finds the Acute Oral, Acute Dermal and Primary Skin Irritation Studies acceptable to support conditional registration of this product.

(2) The Acute Inhalation and Eye Irritation were

Core Supplementary Data and unacceptable to support condition registration of this product

(a) In the Acute Inhalation Study an actual concentration, not nominal, must be used.

(b) In the Eye Irritation Study, 9 animals (6 with treated unwashed eyes and 3 with treated washed eyes) must be used. Observations must be made for 21 days or until all irritation has subsided.

Label:
(1) Labeling comments reserved until acceptable Acute Inhalation and Eye Irritation Studies are submitted.

Review:
(1) Acute Oral Toxicity Study: Monsanto Company; Study # 790071; May 20, 1981.

Procedure: 5M and 5F Sprague Dawley rats weighing between 175 and 260 grams received a single oral dosage of 10,000 mg/Kg. Observation made frequently on day of dosing and twice daily thereafter except for two days through day 15. Necropsy performed on all animals.

Results: No mortalities, no toxic signs noted and no abnormalities noted at necropsy. LD50 greater than 10,000 mg/Kg.

Study Classification: Core Guideline Data.

Toxicity Category: IV - CAUTION

(2) Acute Dermal Toxicity Study: Monsanto Company; Study # 790072; May 28, 1981.

Procedure: 5M and 5F New Zealand rabbits weighing between 2.01 and 2.25 kilograms recieved a single dermal exposure of 2000 mg/kg of the test material at intact skin sites under occlusive wrap for 24 hour exposure. Observations made once daily for fourteen days for mortalities. Observations for signs of toxicity made on the first, seventh and fourteenth day following treatment. Necropsy performed on all animals.

Results: No mortalities. Erythema noted in all animals one day post dosing, but had dissipated by the next observation. At necropsy, one male animal had an enlarged prostate filled with prostatic fluid. No other abnormalities noted at necropsy. LD50 greater than 2000 mg/kg.

Study Classification: Core Guideline Data.

Toxicity Category: III - CAUTION

(3) Acute Inhalation Toxicity Study: Monsanto Company; Study # 790181; April 8, 1981.

Procedure: 5M and 5F Sprague-Dawley rats were exposed for four hours to a nominal concentration of 4.89 mg/l. Chamber temperature was relatively constant at 21°C. Observations

made twice daily for 14 days. Necropsy performed on all animals.

Results: No mortalities or toxicity signs noted. Necropsy revealed two animals of each sex having slight petechial hemorrhage of the thymus.

Study Classification: Core Supplementary Data. An actual concentration, not nominal, must be used.

(4) Eye Irritation Study: Monsanto Company; Study # 790074; May 20, 1981.

Procedure: Six New Zealand rabbits received 0.1 ml of the test material in one eye each. Observations made at 24, 48 and 72 hours after dosing.

Results: At 24 hours, 5/6 had corneal opacity (5/6 = 5); no iris irritation; 3/6 had an average conjunctive irritation score of 2.

At 72 hours, 3/6 had corneal opacity (3/6 = 5). No other irritation noted.

Study Classification: Core Supplementary Data. Since the animals were only observed for 72 hours and half of the animals still have corneal opacity, ~~and~~ the appropriate toxicity category cannot be determined. 9 animals must be used (6 with treated unwashed eyes and 3 with ~~treat~~ treated washed eyes).

(5) Primary Skin Irritation Study: Monsanto Company; Study # 790073; May 20, 1981.

Procedure: Six New Zealand rabbits received 0.5 ml of the test material at one abraded and one intact skin site per animal under occlusive wrap for 24 hour exposure. Observations made at 24 and 72 hours after exposure.

Results: At 24 hours, 6/6 animals had slight to well defined erythema (4/6=1, 2/6=2). No edema present. At 72 hours, 2/6 had slight erythema (2/6=1). Primary Irritation Index was 0.7.

Study Classification: Core Guideline Data.

Toxicity Category: IV - CAUTION

OCT 25 1982

Monsanto Company
1101 17th Street, NW
Washington, DC 20036

Attention: Ms. Glynadee Edwards

Gentlemen:

Subject: Shackle Herbicide (Acute Toxicology Studies)
EPA Registration No. 524-330
Your Letter of September 24, 1982

We have your letter of September 24, 1982 transmitting a volume of acute studies in support of the subject registration. Further action will await completion of scientific review and evaluation. The accession number assigned this volume of data is 248438.

Sincerely yours,

Robert J. Taylor VKW
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

TS-767C:RJTAYLOR:DCR-08384:WANG-0779C:CBP:Raven:479-2013:10/21/82

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

September 24, 1982

Director
Registration Division (TS767C)
Office of Pesticide Programs
U. S. Environmental Protection Agency
1921 Jefferson Davis Highway
Crystal Mall #2, Room 716D
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor
Product Manager (25)

Subject: Shackle® Herbicide
EPA Reg. No. 524-330
Submission of Acute
Toxicology Studies

Dear Sir:

On April 23, 1979, Monsanto applied for the registration of Shackle herbicide. Shackle herbicide is a ready-to-use 2% formulation of Roundup® herbicide [0.96% glyphosate, isopropylamine salt of N-(phosphonomethyl) glycine] which can be used for home use. At the time of application, no acute studies were submitted for a 2% formulation. On July 30, 1979, EPA granted registration of Shackle.

To update the Shackle file, we are submitting five acute studies. The studies submitted are 1) Acute Oral, 2) Acute Dermal, 3) Primary Skin Irritation, 4) Primary Eye Irritation and 5) Acute Inhalation.

Please inform us of the accession number assigned to this volume of data.

If you have questions, please contact Monsanto.

Sincerely,

Glynadee Edwards

Glynadee Edwards
Registration Manager

/pt

cc: D. N. Duncan

| DATA SUBMISSION LISTING | Product Name: Shackle® Herbicide | EPA Reg. No./File Symbol: 524-330 | Page 1 of 1 |
|---|---|---|---|
| | Applicant's Name and Address: Monsanto Company, 1101 17th Street, N.W., Washington, D.C. 20036 | | To accompany application for registration dated: September 24, 1982 |

| NAME OF STUDY | SOURCE OF STUDY: APPLICANT CONDUCTED STUDY | OBTAINED FROM EPA | OBTAINED FROM ANOTHER FIRM OR SOURCE GIVE NAME AND ADDRESS | OBTAINED FROM PUBLIC LITERATURE GIVE REFERENCE | OTHER EXPLAIN | ACCESSION NUMBER EPA USE ONLY |
|---|---|---|---|---|---|---|
| Acute Oral Toxicity of Roundup® Herbicide 2% Formulation in Rats | X | | | | | |
| Acute Dermal Toxicity of Roundup® Herbicide 2% Formulation to Rabbits | X | | | | | |
| Primary Eye Irritation of Roundup® Herbicide 2% Formulation to Rabbits | X | | | | | |
| Primary Skin Irritation of Roundup® Herbicide 2% Formulation to Rabbits | X | | | | | |
| Acute Inhalation Toxicity of Roundup® Herbicide 2% Formulation in Rats | X | | | | | |
| IF YOU CHECKED THIS COLUMN DO YOU WISH YOUR NAME PLACED ON THE DATA SUBMITTERS LIST? [X] YES [ ] NO | | | | | | |

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# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

February 29, 1980

Director
Registration Division (TS-767)
Environmental Protection Agency
Waterside Mall, East Tower
Washington, D. C. 20460

Attn: Mr. Robert J. Taylor
Product Manager (25)

Dear Sir:

Subject: Shackle™
EPA Reg. No. 524-330

On February 13, 1980, Monsanto submitted to the EPA Certification and Offer-to-Pay statements regarding the registration of Shackle herbicide.

The Upjohn Company, a data submitter for the isopropylamine salt of glyphosate, has responded to our Offer-to-Pay letter. A copy of their letter is attached for your review and files. Please note that the Upjohn Company seeks no compensation and does not object to our proposed registration.

Please contact us at Monsanto if you have questions regarding this registration.

Sincerely yours,

S L Kimball

Steven L. Kimball
Registration Manager

SLK:rk

Enclosure

cc: J. T. Richardson/1920

RECEIVED FEB 25 1980

# THE UPJOHN COMPANY

KALAMAZOO, MICHIGAN 49001, U.S.A.

AGRICULTURAL R & D
PESTICIDE REGULATORY AFFAIRS
PLANT HEALTH PRODUCTS
H. J. VOSTRAL, PH.D.
*Research Head*
TELEPHONE: *(616) 385-6710*

February 21, 1980

Monsanto Agricultural Products Co.
800 N. Lindbergh Blvd.
St. Louis, Missouri 63166
Attn: Steven L. Kimball
Registration Manager

Dear Mr. Kimball:

Subject: Shackle
Your Letter Dated: February 13, 1980

We have reviewed our data files regarding glyphosate.

Reference to these data is not necessary to support your application. Therefore, we will not seek compensation regarding your submission seeking registration of the above named product.

Sincerely,

Henry J. Vostral

Henry J. Vostral, Ph.D.
Research Head
Pesticide Regulatory Affairs

HJV/sek

REC No. 78623

1

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (WH-567)
WASHINGTON, D.C. 20460

**NOTICE OF PESTICIDE:** ☐ REGISTRATION ☐ REREGISTRATION

*(Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended)*

EPA REGISTRATION NO.: 524-330

DATE OF ISSUANCE: 26 FEB 1980

TERM OF ISSUANCE: Conditional Registration

NAME OF PESTICIDE PRODUCT: Shackle

NAME AND ADDRESS OF REGISTRANT *(Include ZIP code)*

Monsanto Company
1101 17th Street, N.W.
Washington, DC 20036

**NOTE:** Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with the provisions of Section 3(c)(7)(A) of the Act, since you have agreed that:

1. You will submit and/or cite all data required for registration/reregistration of your product under FIFRA Section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with Section 6(e) of the Act.

Sincerely,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767)

BEST DOCUMENT AVAILABLE

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☐ ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL: Robert J. Taylor

DATE: 2-26-80

EPA Form 8570-6 (Rev. 5-76) PREVIOUS EDITION MAY BE USED UNTIL SUPPLY IS EXHAUSTED.

2

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## Convenient Spray Applicator

# SHACKLE®

## Weed and Grass Controller

**Controls most unwanted plants and their roots.**

**Doesn't affect the soil.**

EPA Reg. No. 524-330

Active Ingredient:
Glyphosate, Isopropylamine Salt of N-(Phosphonomethyl)Glycine .. 0.96%
Inert Ingredients: ..... 99.04%
100.00%

CAUTION! Read precautions on back panel.
Keep out of reach of children.

NET 1 qt (32 fl oz)

Read the entire label.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in any manner inconsistent with its labeling.

When used as directed, this product controls most weeds, grasses, sedges or brush species, including hard-to-control broadleaf weeds like dandelion and thistle and grasses such as fescues, bermudagrass, and crabgrass.

This product is absorbed by foliage and moves throughout the plant resulting in destruction of both the treated foliage and its supportive root system. Visual effects are a gradual wilting and yellowing which generally develop in five to ten days and advance to a complete browning or deterioration of foliage and underground plant parts.

This product does not harm adjacent desirable plants that are not sprayed. It has no residual soil activity so plants that are seeded or emerged after application will not be affected.

## WHERE TO APPLY

**Ornamentals:** Apply this product to control undesirable plants growing around ornamentals, trees or shrubs. Spray contact, other than with mature bark of desirable plants may cause injury.

**Trimming and Edging:** Apply this product to control undesirable plants growing along the edges or in cracks or crevices of sidewalks, driveways, curbs, patios or similar areas.

**Landscaping:** Apply this product to control undesirable weeds or grasses growing in areas where plantings or ornamentals, trees, shrubs, desert landscapes, rock gardens, flower beds or similar plantings will be made.

**Lawns:** Apply this product to control undesirable weeds growing in lawns. Spot treating undesirable weeds in a lawn will cause a dead spot until sufficient growth occurs to close the area. Larger spots will require reseeding to provide complete grass cover and help prevent reinfestation by undesirable plants.

**Gardens:** Apply this product to control weeds growing in areas that will later be planted to the following crops:

- Sweetcorn
- Root crops such as beets, onions, potatoes, radishes and turnips.
- Leafy vegetables such as cabbage, lettuce and spinach.
- Seed and Pod vegetables such as beans and peas.

**Trees (Apple, Citrus, Nut, Pear) and Grape Vines:** Apply this product to control undesirable plants growing around these trees and vines. Spray contact, other than with mature bark of the main trunk can injure the tree or vine. Allow 21 days between application and picking.

**General Weed Control:** Apply this product to control undesirable plants growing in fences, around physical ornaments, buildings, tool sheds or other areas where control is desired.

## WHEN TO APPLY

Apply this product when weeds, grasses or undesirable plants are actively growing. Performance may be reduced if weeds are wilted, have insect damage, or have recently been clipped or mowed. Adequate foliage must be present to receive the spray.

If rainfall occurs within six hours after application, the product may be washed off treated foliage requiring a repeat application.

Avoid making application during windy conditions that may result in spray drift to desirable plants.

## HOW TO APPLY

This product is supplied ready to use without further mixing or dilution. It should be applied using the applicator-container as a foliage spray to weeds and grasses. Do not add water or other materials to the product.

Spray directly on the foliage of weeds or other undesirable plants. The spray should be directed and the nozzle tip adjusted so that only undesirable plants receive spray. The sprayer tip should be held approximately six inches from the foliage. Coverage should be complete and uniform stopping just before the spray begins to drip or run off the foliage.

Avoid spray contact with desirable plants. If desirable plants are accidentally sprayed, injury may be reduced or prevented by thoroughly flushing with water immediately.

Treated plants should not be mowed or disturbed by tillage, digging or slicing for seven days after application to allow time for the product to be absorbed and moved to the root systems.

NOTE: Use of this product in any manner not consistent with the label may result in injury to persons, animals, desirable plants or other unintended consequences. Keep container closed to prevent spills and contamination.

EPA Est. 524-LA-1 2005/53 - 3-9-79

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

U.S. Pat. No. 3,799,758 covers use.
Other patents are pending.
©MONSANTO COMPANY 1979

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63166 U.S.A.

## PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals

Keep out of reach of children.

### CAUTION!

MAY CAUSE EYE IRRITATION.

Avoid contact with eyes.

FIRST AID: IN CASE OF EYE CONTACT, flush with plenty of water for at least 15 minutes. Call a physician. Flush skin with water. Wash clothing before reuse.

### Environmental Hazards

Keep out of lakes, streams and ponds. Do not contaminate water by disposal of waste or cleaning of equipment.

### Storage and Disposal

Avoid contamination of seed, feed, and foodstuffs.

Do not reuse container, destroy when empty.

## LIMIT OF WARRANTY AND LIABILITY

This company warrants that this product is reasonably fit for the purposes set forth in the Directions for Use, when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE.

Buyer and all users shall promptly notify this company of any claims. Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this company, including, but not limited to, application in any manner not explicitly set forth in the Directions. THE LIMIT OF LIABILITY OF THIS COMPANY SHALL NOT EXCEED THE PURCHASE PRICE OF THIS PRODUCT. IN NO EVENT SHALL THIS COMPANY BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

ACCEPTED
26 FEB 1980
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-330

BEST DOCUMENT AVAILABLE

28

28A

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

February 13, 1980

Director
Registration Division (TS-767)
Environmental Protection Agency
Waterside Mall, East Tower
Washington, D.C. 20460

Attn: Mr. Robert J. Taylor
Product Manager (25)

Subject: Shackle™
EPA Reg. No. 524-330

Dear Sir:

Enclosed are completed Certification and Offer-to-Pay statements to satisfy the registration requirements for Monsanto's product Shackle herbicide.

Please contact us at Monsanto if you have questions regarding this registration.

Sincerely,

S L Kimball

Steven L. Kimball
Registration Manager

/pt
Enclosures

cc: Dr. J. T. Richardson

20

# CERTIFICATION STATEMENT

EPA File Symbol/ Reg. No. 524-330 Date of application to which this statement applies February 13, 1980

Product Name Shackle™

Applicant's Name and Address Monsanto Company
800 N. Lindbergh Blvd.
St. Louis, Missouri 63166

I certify that I have notified in writing the companies (except those with whom I have reached written agreement) who have submitted data upon which I have relied to support my application and offered to:

1. Pay compensation for those data in accordance with Sections 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act, as amended; and

2. Commence negotiations to determine which data are subject to the compensation requirements of FIFRA, and the amount and terms of compensation, if any, due.

The companies I have notified are:

[X] All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (see 40 CFR 162.9-5). (Check this box only if you are using the "cite-all" method of support.)

[ ] All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product which are not derived from registered and purchased products (see 40 CFR 162.9-8(f)). (Check this box only if you are using the "combined" method of support.)

[ ] Those companies who have conducted the studies which I have submitted (or cited if conducted with an identical product) (see 40 CFR 162.9-8(e)). (Check this box if you are using either the "alternate" method of support or the "combined" method of support.)

Signature and Title S L Kimball Registration Manager

Typed name Steven L. Kimball Date signed Feb. 13, 1980

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SS

(over)

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~~APPLICANT'S EXECUTION AND SUBMISSION OF THIS FORM IS SOLELY TO OBTAIN AGENCY APPROVAL OF APPLICANT'S REQUEST FOR REGISTRATION AND IS NOT TO BE CONSTRUED AS AN ADMISSION BY APPLICANT THAT THE AGENCY HAS ANY LEGAL AUTHORITY TO REQUIRE APPLICANT TO EXECUTE AND SUBMIT THIS FORM OR AS AN ADMISSION BY APPLICANT CONCERNING THE LEGALITY OR ENFORCEABILITY OF FIFRA, AS AMENDED, OR ANY REGULATIONS PROMULGATED THEREUNDER OR AS A WAIVER OF APPLICANT'S RIGHT TO CHALLENGE SAID LEGALITY OR ENFORCEABILITY.~~

"this deletion is to comply with the EPA's letter to Monsanto dated april 20, 1979."

SLK
2/13/80

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OFFER TO PAY STATEMENT ---- COMBINED CITE-ALL AND ALTERNATE METHODS OF SUPPORT

OCO 6

EPA File Symbol/Registration Number 524-330 Date of Application February 13, 1980

Product Name Shackle™

Applicant's Name and Address Monsanto Company

800 N. Lindbergh Blvd.

St. Louis, Missouri 63166

THIS IS AN OFFER TO PAY COMPENSATION UNDER 40 CFR 162.9-8 IN CONNECTION WITH REGISTRATION OF AN END-USE PRODUCT WHICH WILL CONTAIN ONE OR MORE ACTIVE INGREDIENT(S) DERIVED FROM 1) AN UNREGISTERED PRODUCT OR 2) A REGISTERED PRODUCT THAT IS NOT PURCHASED FROM ANOTHER PRODUCER.

Applicant offers and agrees to pay compensation to other persons with regard to the approval of this application to the extent required by Sections 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (FIFRA).

Applicant acknowledges that for the purposes of FIFRA Section 3(c)(1)(D), this application relies on, and the Agency shall consider only, the following data:

1. Data submitted by the applicant and conducted using the applicant's formulated product or another product of identical composition. Data already in Agency files which were conducted with a product of identical composition may be cited instead of submitted. (INCLUDE WITH YOUR APPLICATION THE DATA SUBMISSION LISTING.)

2. Existing tolerances, food additive regulations, exemptions, and other clearances issued under the Federal Food, Drug, and Cosmetic Act;

3. With respect to those active ingredients which are derived from registered and purchased products, other data pertaining to the safety of the active ingredient, rather than to the safety of the end-use product (however, under FIFRA 3(c)(2)(D), no compensation is payable for such data); and

4. With respect to those active ingredients which are not derived from registered and purchased products, each item of data in the Agency's files which concerns the properties or effects of any such active ingredient and is one of the types of data that EPA would require to be submitted for scientific review if the applicant sought the initial registration under FIFRA Section 3(c)(5) of a product with composition and intended uses identical to those proposed for the applicant's product, under the data requirements in effect on the date EPA approves the applicant's present application.

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The following active ingredients in this product are derived from unregistered products or products that are registered but not purchased from another producer:

/X/ I have notified the appropriate companies and attached the Certification Statement.

/ / The Certification Statement will be submitted prior to registration.

Signature and Title S L Kimball Registration Manager

Typed Name Steven L. Kimball Date signed Feb 13, 1980

(over)

~~APPLICANT'S EXECUTION AND SUBMISSION OF THIS FORM IS SOLELY TO OBTAIN AGENCY APPROVAL OF APPLICANT'S REQUEST FOR REGISTRATION AND IS NOT TO BE CONSTRUED AS AN ADMISSION BY APPLICANT THAT THE AGENCY HAS ANY LEGAL AUTHORITY TO REQUIRE APPLICANT TO EXECUTE AND SUBMIT THIS FORM OR AS AN ADMISSION BY APPLICANT CONCERNING THE LEGALITY OR ENFORCEABILITY OF FIFRA, AS AMENDED, OR ANY REGULATIONS PROMULGATED THEREUNDER OR AS A WAIVER OF APPLICANT'S RIGHT TO CHALLENGE SAID LEGALITY OR ENFORCEABILITY.~~

"this deletion is to comply with the EPA's letter to Monsanto dated April 20, 1979."

SLK
2/13/80

-8

| DATA SUBMISSION LISTING | Product Name: Shackle™ | EPA Reg. No./File Symbol: 524-330 | Page 1 of 1 |
|---|---|---|---|
| | Applicant's Name and Address: Monsanto Company, 800 N. Lindbergh Blvd., St. Louis, Missouri 63166 | | To accompany application for registration dated 2/13/80 |

| NAME OF STUDY | SOURCE OF STUDY: APPLICANT CONDUCTED STUDY | OBTAINED FROM EPA | OBTAINED FROM ANOTHER FIRM OR SOURCE GIVE NAME AND ADDRESS | OBTAINED FROM PUBLIC LITERATURE GIVE REFERENCE | OTHER EXPLAIN | ACCESSION NUMBER EPA USE ONLY |
|---|---|---|---|---|---|---|
| References have been previously submitted | | | | | | |
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IF YOU CHECKED THIS COLUMN DO YOU WISH YOUR NAME PLACED ON THE DATA SUBMITTERS LIST?
☐ YES ☐ NO

25

25

25A

288

# SUBMISSION REVIEW RECORD

G

| 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED (MO DAY YR) |
|---|---|---|
| 524 - GGN | | 12 10 79 |

| 3. 3CID PUBLICATION NECESSARY | 4. PETITION NO. | 5. RECEIVED PM TEAM (MO DAY YR) |
|---|---|---|
| ☐ YES ☒ NO | | |

| 6. METHOD OF SUPPORT | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN (MO DAY YR) |
|---|---|---|---|
| ☐ 2A ☐ 2B ☐ 2C | Taylor | 25 | |

| 9. DATE PULLED | 10. DATE PUBLISHED | 11. ACTION TYPE | CODE | 12. OUTGOING DATE (MO DAY YR) |
|---|---|---|---|---|
| 12/17/79 | | Revised statement of formula | 121 | |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED (MO DAY YR) |
|---|---|---|---|---|---|---|
| 1 | A | REVIEWABILITY TEAM | ECK | Edmonia Kearny | NAC | 12 20 79 |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | |
| | F | PRODUCT MANAGER | | | | |
| | G | INTERAGENCY REFERRAL | | | | |
| | H | COST-BENEFIT REVIEW | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | |
| | S | | | | | |
| | T | | | | | |

| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

BEST DOCUMENT AVAILABLE

EPA HQ Form 8570-13 (3-75)

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

December 10, 1979

Director
Registration Division (TS-767)
Environmental Protection Agency
Waterside Mall, East Tower
Washington, D.C. 20460

Attn: Mr. Robert J. Taylor
Product Manager (25)

Subject: Shackle™
EPA Reg. No. 524-330
Revised statement of formula.

Dear Sir:

On July 30, 1979, your office informed Monsanto that our request to register the dilute formulation of glyphosate named Shackle had been approved. On November 5, we replied to items requested in this letter, plus submitted labels for stamping.

We have since been informed that the information requested about the surfactants in the formulation could not be waived as noted in the Federal Register. We are now replying to the information requested in item 2d (letter attached).

Upon the submission of this request, we had been informed by our suppliers that the surfactants [redacted] were either approved or approval would be obtained shortly. Recent contacts with these suppliers revealed that none had been approved.

In order to correct this, Monsanto is now submitting a revised confidential statement of formula deleting these unapproved surfactants. The three surfactants remaining; [redacted] have been approved for use in Roundup® herbicide since 5/25/78. We, therefore, assume that they should be permitted use in the Shackle formulation.

**Inert ingredient information may be entitled to confidential treatment**

We trust that this will answer the questions pending on this formulation and final approval may now be obtained. Should you have any further questions, please feel free to contact us at Monsanto.

Sincerely,

Frank Serdy

Frank S. Serdy
Manager, Registration

/pt
Enclosures

cc: Dr. J. T. Richardson

11-14-79 12

Called Dr Spurrier
this date & told him
they must submit new
offer / Pay + information
on merits as requested
in our July 31 letter

Ed

Ready to accept
as soon as we get
off / Pay + Ret - letter
2-12-80

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# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

November 5, 1979

Director
Registration Division (TS-767)
Environmental Protection Agency
Waterside Mall, East Tower
Washington, D.C. 20460

Attn: Mr. Robert J. Taylor
Product Manager (25)

Subject: Shackle™
EPA Reg. No. 524-GGN
Final Labels for Stamping

Dear Sir:

On July 30, 1979, your office notified Monsanto that our request to register the Shackle formulation of glyphosate was acceptable. Your letter is attached for reference. In this letter, you requested Monsanto make several minor changes to the label. We have made these changes and now are submitting five (5) copies for your approval.

On October 4, 1979, Monsanto wrote to the agency agreeing to the request in item 1 of your letter. This letter also requested an extension of time until November 16 to submit our final labels.

In item 2(d) of your letter, you requested we obtain authorization from our suppliers to allow the agency to refer to their files in support of this formulation. In a recent Federal Register Notice, the agency waived this requirement and we now believe that these letters of authorization are not required.

Should you have any questions, please feel free to contact us at Monsanto.

Sincerely,

Frank S. Serdy

Frank S. Serdy
Manager, Registration

/pt
Enclosures

cc: Dr. E. C. Spurrier

# Monsanto

Monsanto Company
1101 17th Street, N.W.
Washington, D.C. 20036
Phone: (202) 452-8880

October 4, 1979

Director
Registration Division (TS-767)
Environmental Protection Agency
Waterside Mall, East Tower
Washington, D.C. 20460

Attn: Mr. Robert J. Taylor
Product Manager (25)

Subject: Shackle®
EPA Reg. No. 524-330

Dear Sir:

On July 30, 1979, your office informed Monsanto of the approval of our request to register the Shackle formulation of glyphosate. Your letter is attached for your reference.

As requested in your letter under item 1, Monsanto hereby agrees to submit and/or cite all data required for registration/reregistration of this product under FIFRA section 3(c)(5) when required.

We are presently preparing the final labels for this product as requested in item 2 of your letter. We will not, however, be able to submit them before the 75 day period expires (October 13). We, therefore, request the agency grant Monsanto an extension period of 35 days. This will extend the deadline until November 16. We will by this time have completed this label printing.

If this extension time is agreeable, you need not reply. Should you have any questions, please feel free to contact us at Monsanto.

Sincerely,

Frank Serdy

Frank Serdy
Manager, Registration

/pt
Attachment

cc: Dr. E. C. Spurrier

15

# SUBMISSION REVIEW RECORD

G

| 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED |
|---|---|---|
| PA 330 — 0 0 5 2 4 - 0 0 G G N | | MO 0 4 DAY 2 5 YR 7 9 |

| 3. 3CID PUBLICATION NECESSARY | 4. PETITION NO. | 5. RECEIVED PM TEAM |
|---|---|---|
| ☐ YES ☐ NO | | MO DAY YR |

| 6. METHOD OF SUPPORT | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN |
|---|---|---|---|
| ☐ 2A ☐ 2B ☐ 2C | Taylor | 2 5 | MO DAY YR |

| 9. DATE PULLED | 10. DATE PUBLISHED | 11. ACTION TYPE | CODE | 12. OUTGOING DATE |
|---|---|---|---|---|
| | | | 1 1 | MO DAY YR |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED MO | DAY | YR |
|---|---|---|---|---|---|---|---|---|
| | A | REVIEWABILITY TEAM | SCK | Edmonia Kearny | RL | 0 5 | 0 2 | 7 9 |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | RFM | Richard F Mountfort | C | 0 7 | 2 0 | 7 9 |
| | F | PRODUCT MANAGER | | | | | | |
| | G | INTERAGENCY REFERRAL | | | | | | |
| | H | COST-BENEFIT REVIEW | | | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | | | |
| | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | | | |
| | R | EEE BRANCH ENVIRONMENTAL SAFETY | | | | | | |
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| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| UKW | conditional PA | 3 0 |

EPA HQ Form 8570-13 (3-75)

Jacket to RET (5-1-79) #238240 16 Routed 5-1-79

# SUBMISSION REVIEW RECORD

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| 1. REGISTRATION NUMBER | CYCLE | 2. DATE RECEIVED (MO DAY YR) |
|---|---|---|
| 524-GGN | | 04 25 79 |

| 3. 3CID PUBLICATION NECESSARY | 4. PETITION NO. | 5. RECEIVED PM TEAM (MO DAY YR) |
|---|---|---|
| ☐ YES ☐ NO | | 04 30 79 |

| 6. METHOD OF SUPPORT | 7. PRODUCT MANAGER | NO. | 8. PROJECTED RETURN (MO DAY YR) |
|---|---|---|---|
| ☐ 2A ☐ 2B ☐ 2C | Taylor | | |

| 9. DATE PULLED | 10. DATE PUBLISHED | 11. ACTION TYPE | CODE | 12. OUTGOING DATE (MO DAY YR) |
|---|---|---|---|---|
| | | New application for "Shackle" | 11 | |

| REV SEQ. | REVIEW TYPE CODE | REVIEW TYPE | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COMMENT CODE | DATE REVIEW COMPLETED (MO DAY YR) |
|---|---|---|---|---|---|---|
| X | A | REVIEWABILITY TEAM | EIK | Edmonia Kearny | RL | 05 02 79 |
| | B | PRODUCT MANAGER TEAM EFFICACY REVIEW | | | | |
| | C | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW | | | | |
| | D | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW | | | | |
| | E | PRODUCT MANAGER TEAM RESUBMISSION REVIEW | | | | |
| | F | PRODUCT MANAGER | | | | |
| | G | INTERAGENCY REFERRAL | | | | |
| | H | COST-BENEFIT REVIEW | | | | |
| | I | PUBLIC COMMENTS REVIEW | | | | |
| | J | EEE BRANCH INSECTICIDE EFFICACY | | | | |
| | K | EEE BRANCH HERBICIDE EFFICACY | | | | |
| | L | EEE BRANCH FUNGICIDE EFFICACY | | | | |
| | M | EEE BRANCH RODENTICIDE EFFICACY | | | | |
| | N | EEE BRANCH DISINFECTANT EFFICACY | | | | |
| | O | CHEMISTRY BRANCH RESIDUE CHEMISTRY | | | | |
| | P | EEE BRANCH ENVIRONMENTAL CHEMISTRY | | | | |
| X | Q | TOXICOLOGY BRANCH HUMAN SAFETY | | | | |
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| PRODUCT MANAGER SIGNATURE | TYPE OF RESPONSE | CODE |
|---|---|---|
| | | |

EPA HQ Form 8570-13 (3-75)

Monsanto Agricultural Products Co.
800 N. Lindbergh Boulevard
St. Louis, MO 63166

JUL 3 0 1979

Attention: Robert A. Conkin

Gentlemen:

Subject: Shackle
EPA File Symbol 524-GGN
Submission: April 20, 1979

The product referred to above will be acceptable for registration as provided for under Section 3(c)(7)(A) of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (FIFRA), provided that you:

1. Agree in writing that you will submit and/or cite all data required for registration/reregistration of your product under FIFRA Section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.

   If these conditions are not complied with after the registration is issued, the registration will be subject to cancellation in accordance with Section 6(e) of the Act.

2. Submit your final printed labeling, incorporating the following revisions, within 75 days. (If finished labeling cannot be furnished within the 75-day period, an extension should be requested.)

   a. Place the misuse statement - It is a violation of Federal law to use this product in a manner inconsistent with its labeling - under the heading - DIRECTIONS FOR USE.

   b. Change claim xxx destroys vegetation xxx to read xxx controls vegetation xxx.

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c. Correct the active ingredient in the ingredient statement on the label to read as follows:

Glyphosate, isopropylamine salt N-(Phosphonomethyl)glycine

d. Refer to the enclosed checklist, # 71.

Submit appropriate compensation and certification statements pursuant to the Regulations at §162.9, Compensation for Use of Data.

"EPA Registration No. 524-330" is being reserved for this product. This must appear on the finished label. The "Notice of Registration" will be issued when five (5) acceptable finished labels are submitted as provided in 40 CFR Section 162.10(a)(6) (40 FR 28278, July 3, 1975). Refer to the A-79 Enclosure for a further description of finished labeling.

This letter does not constitute registration and the product may not be lawfully marketed until it is registered.

Sincerely,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (TS-767)

Enclosures

TS-767:RTAYLOR:bkh85:DCR#47624:RAVEN:479-2018:7/27/79

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| REVIEW COMMENTS SHEET | 1. Application Date | 2. Registration No. 19 |
|---|---|---|
| 3. Response Code | 4. Date Received | 5. Telephone No. |
| 6. Applicant Name & Address | | 7. Originator |
| 8. Product Name | | |

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COMMENTS

(c) Correct the active ingredient in the ingredient statement on the label to read as follows:

Glyphosate, isopropylamine salt N-(Phosphonomethyl)glycine

(d) ~~T-71~~ Refer to the enclosured checklist, # 71 of 1st page

EPA Reg.No._____

EPA File Symbol_____



A-3 RET CHEMISTRY CHECKLIST

____64. Products containing sodium flouoride or sodium fluosilicate must be colored blue or green, or must be discolored (not white).

____68. The use of this product on _____"grown for seed" is not acceptable in the absence of a finite tolerance or exemption from the requirement of a tolerance under the Federal Food, Drug, and Cosmetic Act. Under commonly recognized practices in the production and processing of seed, some of the crop would likely be used as food or feed.

____69. Before this product can be accepted for use on _____ "grown for seed," it will be necessary for you to:

1. Obtain a tolerance under the Federal Food, Drug, and Cosmetic Act, OR

2. Submit information on the commonly recognized practices followed in the production and processing of seed to show conclusively that no part of the crop is likely to be used for food or feed. Such information should include reports from agricultural authorities in representative growing areas, outlining the practices commonly followed and giving an opinion on the likelihood of any part of the crop being used for food or feed. Reports from at least one State Agricultural Experiment Station in each major growing area should be included.

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✓ 71. Request your supplier(s) to submit a statement specifically authorizing this Division to use their confidential formula(s) in support of your product's registraiton. Refer to PR Notice 70-21. Alternativley, request your supplier to submit to this Division their complete formula(s) giving the names and percentages of both the active and inert ingredients for [redacted]

____75. We have not received authorization from your supplier(s) of the _____ to use their confidential formulation in support of your label. We cannot complete the review of your label until this information is furnished.

____78. We have received the information from your supplier and have included it in our records.

____79. Delete_____from the ingredient statement. This wording may appear elsewhere on the label (outside the ingredient statement).

*Inert ingredient information may be entitled to confidential treatment*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: July 19, 1979

21

SUBJECT: EPA File Symbol: 524-GGN SHACKLE
Caswell #661A

FROM: B.T. Backus
IRB/TSS

TO: Mr. Robert Taylor
Product Manager 25

Applicant: Monsanto Agricultural Products Company
Research Department
800 North Lindbergh Blvd.
St. Louis, MO 63166

Active Ingredient:
Isopropylamine salt of Glyphosate.....0.96%
Inert Ingredients:.....99.04%

Recommendations:

1. Under current Agency policy on conditional registration, the applicant is required to either submit acute toxicological studies conducted on the actual formulation as proposed for registration, or utilize the "Cite-all" method of support.

   In this application, no Acute Dermal LD50, no Oral LD50, or Primary Dermal Irritation studies were submitted for this specific formulation. The submitted Eye Irritation study was conducted on a 1:20 dilution of EPA Reg. No. 524-308, rather than the 1:50 dilution proposed for registration.

   The applicant should be given two choices; either to submit the required acute toxicological studies on the proposed formulation, or utilize the "Cite-all" method of support.

2. If the "Cite-all" method of support is utilized, IRB/TSS would have no objection, on the basis of incremental hazard to man and the environment, to the conditional registration of this product with the labeling revision indicated below.

Labeling:

The statement "It is a violation of Federal law to use this product in a manner inconsistent with its labeling" should appear immediately below the heading DIRECTIONS FOR USE. No other revisions would be necessary.

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Review

Acute Eye Irritation (rabbit); study conducted by Younger Laboratories, Inc. 123 Cliff Cave Road, St. Louis, MO 63129, utilizing a 1:20 dilution of ROUNDUP (EPA Reg. No. 524-308) in water (product as proposed for registration is a 1:50 dilution in water). Study dated March 19, 1976; submitted April 20, 1979; in EPA Acc. 238240.

Procedure: 0.1 ml was applied to one eye of each of 3 New Zealand white rabbits, with Draize scoring at 1, 24, 48, 72, 120 and 168 hrs.

Results: No corneal opacity. Conjunctival irritation at 1 and 24 hrs (slight erythema, moderate to copious discharge). All scores zero at 48 hrs and afterwards.

Study Classification: Core Minimum Data

Product Classification: For the 1:20 dilution of ROUNDUP, Tox. Cat. III: CAUTION

Byron T Backus 7-19-79

Byron T. Backus
IRB/TSS

R.S.V. 7-19-79

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# Monsanto

MONSANTO AGRICULTURAL PRODUCTS CO.
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166
Phone: (314) 694-1000

April 23, 1979

Director
Registration Division (TS-767)
Environmental Protection Agency
Waterside Mall, East Tower
Washington, D.C. 20460

Attn: Mr. Robert J. Taylor
Product Manager (25)

Subject: New Product Registration
SHACKLE®; Home Use
Formulation Containing
Glyphosate

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Dear Mr. Taylor:

The utility of the compound glyphosate, as evidenced by the many registered uses for Roundup®, can be extended to many areas of use including the home gardener. The present label for Roundup, EPA Reg. No. 524-308 includes many uses that can be adapted for home use including such uses as turf, ornamentals, trees and certain garden crops.

Monsanto wishes to explore this area of potential marketing and has developed a diluted and ready-to-use formulation of glyphosate which can be offered to the homeowner. Our initial program will involve a limited number of units (1-quart plastic bottle with insertable spray pump-finger operated) to be distributed, free-of-charge, and subsequently monitored for various points of customer reactions. Our first survey approach calls for a probable maximum of 500 units

We have reviewed all of our existing toxicology for glyphosate, Roundup® and various use dilutions. We can find no reason to suspect the proposed ready-to-use dilution of glyphosate (SHACKLE®)

would exceed any toxicity levels beyond those established for the registration of Roundup® - in fact, the level of toxicological concern has been reduced by a factor of at least 50 with the new product a concentration equivalent to a 2% vol/vol solution of Roundup®.

Reference is made to the Federal Register publication of 12/5/78 (copy enclosed as a part of the submission) which outlines the position of EPA with respect to the status of required toxicology in support of all registrations and published tolerances.

Monsanto has agreed to all conditions and in so doing, certain studies have been or are definitely scheduled for rerun. Those studies completed include microbial mutagenicity and an Ames test. The results of these studies are being forwarded to you under separate cover as Monsanto Company reports R.D. number 236, 4/20/79.

We have provided acute eye irritation studies for a 5% vol/vol dilution for Roundup® which suggests the use of "CAUTION" as the key label signal word for this concentration. By extrapolation downward, we have concluded that the signal word "CAUTION" would be more than adequate for a 0.96% glyphosate use dilution.

All other information required for product registration has been included or referenced.

Enclosed is a Confidential Statement of Formula; Application for Pesticide; Label Technical Data and Revised Promise to Pay Statement.

Also enclosed are five copies of the data in support of the proposed label (product) registration and five copies of the new product label.

If there are additional questions, please contact the undersigned at St. Louis or Dr. Spurrier of our Washington office.

Sincerely,

Robert A. Conkin /bg

Robert A. Conkin
Manager of Registration

cc: Dr. E. C. Spurrier

/bg
enclosures

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EPA-PR
4-25-79

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## Convenient Spray Applicator

# SHACKLE®

## Weed and Grass Controller

**Destroys most unwanted plants and their roots.**

**Doesn't affect the soil.**

EPA Reg. No. 524-

Active Ingredient:
Isopropylamine salt of Glyphosate 0.96%
Inert Ingredients: ..... 99.04%
100.0%

CAUTION! Read precautions on back panel.
Keep out of reach of children.

NET 1 qt (32 fl oz)

Read the entire label.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

### DIRECTIONS FOR USE

When used as directed, this product destroys most weeds, grasses, sedges or brush species, including hard-to-control broadleaf weeds like dandelion and thistle and grasses such as fescues, bermudagrass, and crabgrass.

This product is absorbed by foliage and moves throughout the plant resulting in destruction of both the treated foliage and its supportive root system. Visual effects are a gradual wilting and yellowing which generally develop in five to ten days and advance to a complete browning or deterioration of foliage and underground plant parts.

This product does not harm adjacent desirable plants that are not sprayed. It has no residual soil activity so plants that are seeded or emerged after application will not be affected.

### WHERE TO APPLY

**Ornamentals:** Apply this product to destroy undesirable plants growing around ornamentals, trees or shrubs. Spray contact, other than with mature bark of desirable plants may cause injury.

**Trimming and Edging:** Apply this product to destroy undesirable plants growing along the edges or in cracks or crevices of sidewalks, driveways, curbs, patios or similar areas.

**Landscaping:** Apply this product to destroy undesirable weeds or grasses growing in areas where plantings of ornamentals, trees, shrubs, desert landscapes, rock gardens, flower beds or similar plantings will be made.

**Lawns:** Apply this product to destroy undesirable weeds growing in lawns. Spot treating undesirable weeds in a lawn will cause a dead spot until sufficient growth occurs to close the area. Larger spots will require reseeding to provide complete grass cover and help prevent reinfestation by undesirable plants.

**Gardens:** Apply this product to destroy weeds growing in areas that will later be planted to the following crops:

- Sweetcorn
- Root crops such as beets, onions, potatoes, radishes and turnips.
- Leafy vegetables such as cabbage, lettuce and spinach.
- Seed and Pod vegetables such as beans and peas.

**Trees (Apple, Citrus, Nut, Pear) and Grape Vines:** Apply this product to destroy undesirable plants growing around these trees and vines. Spray contact, other than with mature bark of the main trunk can injure the tree or vine. Allow 21 days between application and picking.

**General Weed Control:** Apply this product to destroy undesirable plants growing in fences, around physical ornaments, buildings, tool sheds or other areas where control is desired.

### WHEN TO APPLY

Apply this product when weeds, grasses or undesirable plants are actively growing. Performance may be reduced if weeds are wilted, have insect damage, or have recently been clipped or mowed. Adequate foliage must be present to receive the spray.

If rainfall occurs within six hours after application, the product may be washed off treated foliage requiring a repeat application.

Avoid making application during windy conditions that may result in spray drift to desirable plants.

### HOW TO APPLY

This product is supplied ready to use without further mixing or dilution. It should be applied using the applicator-container as a foliage spray to weeds and grasses. Do not add water or other materials to the product.

Spray directly on the foliage of weeds or other undesirable plants. The spray should be directed and the nozzle tip adjusted so that only undesirable plants receive spray. The sprayer tip should be held approximately six inches from the foliage. Coverage should be complete and uniform stopping just before the spray begins to drip or run off the foliage.

Avoid spray contact with desirable plants. If desirable plants are accidentally sprayed, injury may be reduced or prevented by thoroughly flushing with water immediately.

Treated plants should not be mowed or disturbed by tillage, digging or slicing for seven days after application to allow time for the product to be absorbed and moved to the root systems.

NOTE: Use of this product in any manner not consistent with the label may result in injury to persons, animals, desirable plants or other unintended consequences. Keep container closed to prevent spills and contamination.

EPA Est. 524-LA-1 2005/53 - 3-9-79

In case of an emergency involving this product, Call Collect, day or night, (314) 694-1000.

U.S. Pat. No. 3,799,758 covers use.
Other patents are pending.
©MONSANTO COMPANY 1979

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63166 U.S.A.

### PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals

*Keep out of reach of children.*

**CAUTION!**

MAY CAUSE EYE IRRITATION.

Avoid contact with eyes.

FIRST AID: IN CASE OF EYE CONTACT, flush with plenty of water for at least 15 minutes. Call physician. Flush skin with water. Wash clothing before reuse.

#### Environmental Hazards

Keep out of lakes, streams and ponds. Do not contaminate water by disposal of waste or cleaning of equipment.

#### Storage and Disposal

Avoid contamination of seed, feed, and foodstuffs.

Do not reuse container, destroy when empty.

### LIMIT OF WARRANTY AND LIABILITY

This company warrants that this product is reasonably fit for the purposes set forth in the Directions for Use, when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE.

Buyer and all users shall promptly notify this company of any claims. Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this company, including, but not limited to, application in any manner not explicitly set forth in the Directions. THE LIMIT OF LIABILITY OF THIS COMPANY SHALL NOT EXCEED THE PURCHASE PRICE OF THIS PRODUCT. IN NO EVENT SHALL THIS COMPANY BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

BEST DOCUMENT AVAILABLE

CERTIFICATION STATEMENT

EPA File Symbol/Registration Number EPA Reg. No. 524-

Product Name SHACKLE®

Name and Address of Applicant Monsanto Company
800 N. Lindbergh Blvd.
St. Louis, MO 63166

I. General Offer To Pay Compensation

Applicant offers to and agrees to pay compensation to other persons, with regard to approval of this application, to the extent required by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, Sections 3(c)(1)(D) and 3(c)(2)(D), 7 U.S.C. 136.

Applicant will submit and/or cite all data required for registration of its product under FIFRA Section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.

II. Specific Offer To Pay Compensation

I have notified in writing all companies who have submitted data upon which I have relied to support my application and offered to:

1. Pay compensation for those data in accordance with Sections 3(c)(1)(D) and 3(c)(2)(D) of FIFRA, as amended; and

2. Commence negotiations to determine which data are subject to the compensation requirements of FIFRA, and the amount and terms of compensation, if any, due.

When the Agency promulgates regulations for FIFRA Sections 3(c)(1)(D) and 3(c)(7), Applicant will bring this registration into compliance with the regulations within 120 days after the effective date.

Signature and Title Robert A Conkin

Typed signature Robert A. Conkin Date Signed 4/23/79

APPLICANT'S EXECUTION AND SUBMISSION OF THIS CERTIFICATION STATEMENT IS SOLELY TO OBTAIN AGENCY APPROVAL OF APPLICANT'S REQUEST FOR REGISTRATION AND IS NOT TO BE CONSTRUED AS AN ADMISSION BY APPLICANT THAT THE AGENCY HAS ANY LEGAL AUTHORITY TO REQUIRE APPLICANT TO EXECUTE AND SUBMIT THIS CERTIFICATION STATEMENT OR AS AN ADMISSION BY APPLICANT CONCERNING THE LEGALITY OR ENFORCEABILITY OF FIFRA, AS AMENDED, OR ANY REGULATIONS PROMULGATED THEREUNDER OR AS A WAIVER OF APPLICANT'S RIGHT TO CHALLENGE SAID LEGALITY OR ENFORCEABILITY.

Refer to EPA letter to Monsanto Company 4/20/79.

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Robert A. Conkin 4/23/79

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Form Approved
OMB No. 158-R0066

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAM (WH-567)
WASHINGTON, D.C. 20460

**APPLICATION FOR PESTICIDE:** [X] REGISTRATION [ ] REREGISTRATION

(Please read instructions on reverse before completing) A

1. REFERENCE CODE: NA

2. EPA USE ONLY: 27

3. COMPANY/PRODUCT NO.: 524-GGN

4. PROPOSED CLASSIFICATION: [X] GENERAL [ ] RESTRICTED

5. NAME AND ADDRESS OF APPLICANT (Include ZIP Code)

Monsanto Company
800 N. Lindbergh Blvd.
St. Louis, Missouri 63166
Attn: Mr. R. A. Conkin

[ ] CHECK IF THIS IS A NEW ADDRESS

6. TYPE OF CONTAINER: [ ] METAL [X] PLASTIC [ ] GLASS [ ] PAPER [ ] OTHER (Specify)

7. WILL CHILD RESISTANT PACKAGING BE USED? [ ] YES [X] NO

8. PRODUCT NAME: SHACKLE

9. EXPERIMENTAL PERMIT NO.: NA

10. LOCATION OF LABEL DIRECTIONS: [X] ON LABEL [ ] ON MATERIAL ACCOMPANYING PRODUCT

11. MANNER IN WHICH LABEL IS AFFIXED TO PRODUCT: [ ] LITHOGRAPH [ ] PAPER GLUED [ ] STENCILED [X] OTHER (Specify) All for trial

| 12. | TYPES OF DATA SUBMITTED | | FOR EPA USE ONLY |
|---|---|---|---|
| | 01. NONE | 1201 | |
| X | 02. PRODUCT CHEMISTRY | 1202 | 2 3 8 2 4 0 |
| | 03. RESIDUE CHEMISTRY | 1203 | |
| | 04. ENVIRONMENTAL CHEMISTRY | 1204 | |
| | 05. EFFICACY | 1205 | |
| | 06. PHYTOTOXICITY | 1206 | |
| X | 07. HUMAN SAFETY | 1207 | 2 3 8 2 4 0 |
| | 08. DOMESTIC ANIMAL SAFETY | 1208 | |
| | 09. FISH AND WILDLIFE SAFETY | 1209 | |
| | 10. BENEFICIAL INSECT SAFETY | 1210 | |
| | 11. ACCIDENT EXPOSURE EXPERIENCE | 1211 | |
| | 12. OTHER (Specify) | 1212 | |
| | 13. OTHER (Specify) | 1213 | |

13. METHOD OF SUPPORT (See instructions)
[ ] Required Supporting Data Attached. (2A)
[X] Required Supporting Data is Submitted by Reference. (2B)

14. CONTACT POINT
Complete items directly below for identification of individual to be contacted, if necessary, to process this application.

NAME: R. A. Conkin

TITLE: Manager of Registration

TELEPHONE NO. (Include Area Code): (314)694-5037

15. DATE APPLICATION RECEIVED (Stamped)

BEST DOCUMENT AVAILABLE

**OFFER TO PAY STATEMENT**
I hereby offer to pay reasonable compensation to the extent provided under Section 3(c)(1)(D) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, and in accordance with the Regulations and Guidlines published thereunder for use of any test data which has been submitted to the U.S. Environmental Protection Agency in support of an application for the registration of a pesticide for the first time on or after January 1, 1970 and which may be used in support of the registration application for the subject pesticide.

16. SIGNATURE: Robert A Conkin

17. TITLE: Manager of Registration

18. TYPED NAME: R. A. Conkin

19. DATE SIGNED: 4/20/79

EPA Form 8570-1 (Rev. 4-76) PREVIOUS EDITION IS OBSOLETE.

Form Approved
OMB No. 158-R0066

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDE PROGRAMS (WH-567)
WASHINGTON, D.C. 20460

# LABEL TECHNICAL DATA

(See INSTRUCTIONS on back of last part)

F

1. COMPANY/REGISTRATION NO. 524-~~308~~ GGN

2. EPA USE ONLY

3. PRODUCT NAME SHACKLE®

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| | 4. APPLICATION SITES (Check all that apply) | | 5. PEST TYPE (Check all that apply) | | 7. USER TYPE (Check all that apply) |
|---|---|---|---|---|---|
| X | 01 CROPS (Fruit) | | 01 ALGAE | | 01 UNSPECIFIED GENERAL USE |
| X | 02 CROPS (Vegetable) | | 02 AMPHIBIAN/REPTILE | | 02 UNSPECIFIED RESTRICTED USE |
| | 03 CROPS (Field) | | 03 BACTERIA | X | 03 HOMEOWNER USE |
| | 04 CROPS (Spice) | | 04 BIRDS | | 04 JANITORIAL USE |
| X | 05 CROPS (Nut) | | 05 FISH | | 05 PEST CONTROL OPERATOR USE |
| | 09 CROPS (Other) | | 06 FOULING ORGANISMS | | 06 COMMERCIAL APPLICATOR USE |
| | 10 SOIL TREATMENT (No crop specified) | | 07 FUNGI | | 07 FARMER USE |
| | 20 FOREST | | 08 INSECTS AND MITES | | 08 MEDICAL USE |
| X | 30 ORNAMENTALS | | 09 MAMMALS | | 09 VETERINARY USE |
| X | 40 TURF | | 10 NEMATODES | | 10 GOVERNMENT AGENCY USE |
| | 50 STORED PRODUCTS TREATMENT | X | 11 PLANTS | | 11 MANUFACTURING USE |
| | 61 ANIMALS (Livestock) | | 12 RODENTS | | **8. FORMULATION (Check one only)** |
| | 62 ANIMALS (Dairy) | | 13 SLIME | | |
| | 63 ANIMALS (Pet) | | 14 SLUGS AND SNAILS | | 01 TECHNICAL CHEMICAL |
| | 64 ANIMALS (Laboratory) | | 15 VIRUS | | 02 FORMULATION INTERMEDIATE |
| | 69 ANIMALS (Other) | | 16 OTHER (Specify) | | 03 DUST |
| X | 71 OUTDOOR (Nocrop Agricultural) | | | | 04 GRANULAR |
| X | 72 OUTDOOR (Resident/Commercial) | | | | 05 PELLETED/TABLETTED |
| X | 73 OUTDOOR (Non agricultural) | | | | 06 WETTABLE POWDER |
| | 81 BUILDINGS (Agricultural) | | **6. MODE OF ACTION (Check all that apply)** | | 07 WETTABLE POWDER/DUST |
| | 82 BUILDINGS (Commercial) | | | | 08 CRYSTALLINE |
| | 83 BUILDINGS (Food Processing) | | 01 ATTRACTANT | | 09 MICROENCAPSULATED |
| | 84 BUILDINGS (Medical) | | 02 BIOLOGICAL CONTROL | | 10 IMPREGNATED MATERIALS |
| | 85 BUILDINGS (Residential) | | 03 CHEMOSTERILANT | | 11 SELF-GENERATING SMOKE |
| | 91 EQUIPMENT (Commercial) | | 04 DEFOLIANT | | 12 EMULSIFIABLE CONCENTRATE |
| | 92 EQUIPMENT (Food) | | 05 DESICCANT | | 13 INVERT EMULSION |
| | 93 EQUIPMENT (Agricultural) | | 06 FEEDING DEPRESSANT | | 14 FLOWABLE CONCENTRATE |
| | 94 EQUIPMENT (Medical) | X | 07 GROWTH INHIBITOR | X | 15 SOLUBLE CONCENTRATE |
| | 95 EQUIPMENT (Transportation) | | 08 GROWTH REGULATOR | | 16 SOLUTION (Ready to Use) |
| | 96 LAUNDRY AND DRY CLEANING | | 09 POISON (Single dose) | | 17 OILS (No added pesticide) |
| | 97 INDUSTRIAL PRESERVATIVES | | 10 POISON (Multiple Dose) | | 18 PRESSURIZED (Gas) |
| | 98 PESTICIDE (Manufacturing only) | | 11 PRESERVATIVE | | 19 PRESSURIZED (Liquid) |
| | 99 OTHER (Specify) | | 12 REPELLENT | | 20 PRESSURIZED (Dust) |
| | | | 13 OTHER (Specify) | | 21 OTHER (Specify) |

REMARKS:

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