EPA Reg. Jacket 91460-6

PROCESSING REQUEST

Reg # 91640-6 Decision # 513664

Description: Adding Basic CSF + Alt CSF # 1

Electronic Label & Letter (see PPLS): OR Non Electronic Label & Letter (Scanning required):

☐ Dated: ☐ Dated:

Only one label type should be selected

Other Materials Sent (see jacket):

☒ New CSF(s) Dated: 1/12/16 (Basic + Alt #1)

☐ Other:

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: Lisa Pahel

Division: RD

Phone: 703-347-0459 Date: 3/13/17

U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460	**EPA Reg. Number:** 91640-6	**Date of Issuance:** 3/10/17
NOTICE OF PESTICIDE: _X_ Registration ___ Reregistration (under FIFRA, as amended)	**Term of Issuance:** Unconditional	
	Name of Pesticide Product: Glufosinate-Ammonium Technical	

Name and Address of Registrant (include ZIP Code):

Glenda Haage
Agent for GenMerica NA, LLC
1660 3rd Ave. SW
LeMars, IA 51031

Note: Changes in labeling 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 EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the 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 unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

2. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. A one year study is required to satisfy these data requirements. You have 18 months from the date of registration to provide these data.

Signature of Approving Official:	**Date:**
Shaja B. Joyner, Product Manager 20 Fungicide-Herbicide Branch Registration Division 7505P	3/10/17

EPA Form 8570-6

3. Make the following label changes before you release the product for shipment:

    - Revise the EPA Registration Number to read, "EPA Reg. No. 91640-6."

4. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 01/12/2016
- Alternate CSF 1 dated 01/12/2016

If you have any questions, please contact Lisa Pahel by phone at (703) 347-0459, or via email at pahel.lisa@epa.gov.

Enclosure: Similarity Clinic Memorandum dated 03/15/2016, DP#431861; Product Chemistry Review dated 12/01/2016, DP#432333

ACCEPTED
03/10/2017
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under
EPA Reg. No. 91640-6

GLUFOSINATE-AMMONIUM TECHNICAL

Only For Use in the Manufacture of Herbicides

ACTIVE INGREDIENT:

Glufsoinate-ammonium*: ammonium 2-amino-4(hydroxymethylphosphinyl)butanoate).....98.0%

OTHER INGREDIENTS: 2.0%

TOTAL.....100%

KEEP OUT OF REACH OF CHILDREN
CAUTION

First Aid	
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything to an unconscious person.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
Note to Physician:	Glufosinate-ammonium is a glutamine synthetase inhibitor and can interfere with neurotransmitter function. Symptoms may be delayed by up to 48 hours following ingestion. There is no specific antidote. If ingested, endotracheal intubation and gastric lavage should be performed as soon as possible followed by charcoal and sodium sulfate administration.
Hot line number:	Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical assistance, call the National Pesticide Information Center at 1-800-222-1222

Manufactured for:
GenMerica NA, LLC
P.O. Box 1603
Cheyenne, WY 82003

EPA Reg. No. 91640-
EPA Est. No.
Net Contents:

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed, absorbed through the skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

ENVIROMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System(NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluents containing this product or sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

DIRECTIONS FOR USE

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

This product is intended for formulation into end-use products for the following uses:

- weed control of emerged weeds in noncrop areas;
- control of weeds and grasses in residential and industrial areas;
- berries (Crop Subgroup 13B), canola, citrus (Crop Group 10-10), corn (field and sweet), cotton, grapes, olives, pome fruit (Crop Group 11-10), rice, soybeans, sugar beets, tree nuts (Crop Group 14) including pistachios, stone fruit (Crop Group 12-12); desiccation of potato vines;
- for elimination of non-glufosinate-ammonium tolerant corn, soybean, rice and cotton plants in seed production;
- uses for which the U.S. EPA has accepted the required data and/or citations of data that the formulator has submitted in support of registration;
- specific uses not listed on the manufacturing product label if the formulator, user group or grower has complied with U.S. EPA submission requirements regarding support or such uses; and
- uses for experimental purposes that are in compliance with U.S. EPA requirements

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in original container tightly closed and in a safe place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into processing equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. Offer the drum for recycling, if available.

WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER, AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, CROP OR PLANT DAMAGE, OR LOSS OF YIELD, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS,

OR THE WEATHER, WIND, AND TEMPERATURE, OR THE MANNER OF USE OR APPLICATION, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER, AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER OR MANUFACTURER, AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY OTHER REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS. NO WARRANTIES SHALL BE CREATED BY COURSE OF DEALING, USAGE OF TRADE, OR COURSE OF PERFORMANCE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE FACE HEREOF. THE SELLER AND MANUFACTURER ASSUME NO RESPONSIBILITY THAT THE GOODS WILL BE FIT FOR ANY PARTICULAR PURPOSE FOR WHICH YOU MAY BE BUYING OR USING THE GOODS.

LIMITATION OF LIABILITY WARNING

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NEITHER MANUFACTURER NOR SELLER SHALL BE LIABLE TO BUYER OR USER OR TO CUSTOMERS OF BUYER, IF ANY, FOR INDEMNIFICATION OR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR RISING OUT OF THE USE, MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR CUSTOMERS. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY, SHALL BE FOR DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE GOODS AND, IF BUYER OR USER WISHES, THE RETURN OF THE GOODS BY BUYER TO SELLER.

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the goods, and return it unopened to the Seller, and the purchase price will be refunded. *By using the goods, you expressly agree to all of the terms and conditions of this contract.*

Prop170308(3)

Explore Registrations

Reg Number: 91640-A Reg. Type: Product Registration - Section 3 Status: Under Review (09-Feb-2016)

Name: GLUFOSINATE-AMMONIUM TECHNICAL <View Registration Details>

(No New Receipts)

S:	Submission Type	OPP Rec'vd Date	Resubmission	Description

...Decisions...
- Data Requirements
- D: Pending; 513664; 91640-A;R334;NEW PROD
  - 75-Day Letters
  - S: 984235 4/6/2016; New Registration; 916
  - S: 980799 2/8/2016; New Registration; 91

S: 980799 Reg #: 91640-A

Submission Type: New Registration

Resubmission?: Yes No E-Sub #:

Decision #: 513664; R334;NEW PRODUCT;MUP OR END USE PRODUCT V

Submitter Company: GENMERICA NA LLC

Application Date: 01-Feb-2016

OPP Received Date: 08-Feb-2016 Date Sent to Risk manager: 10-Feb-2016

Studies Included?: Yes No Fast Track?: Yes No

Form A Signed?: Yes No None Date:

Form B Signed?: Yes No None Date:

Reviewer: Pahel, Lisa

Received DT: Editable Due DT:

Submission Due DT: 11-Apr-2017 Response: 0 , 08-Feb-2016

Priority Weight: Priority Points:

Comments: application to register glufosinate-ammonium technical (2/22/16 et)

3/8/17 Comments

3/10/17.

Pahel, Lisa

From: Glenda Haage <glenda@consultghb.com>
Sent: Wednesday, March 08, 2017 3:33 PM
To: Pahel, Lisa
Cc: Joyner, Shaja
Subject: RE: Pending registration for 91640-A
Attachments: 2017-03-08 Glufosinate-Ammonium Technical label with change per EPA email dated 2017-03-08.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Attached please find label with changes.
Glenda

Note new email address: glenda@consultghb.com Please update your records.

Glenda Haage
GHB Consulting
1660 3rd ave SW
LeMars, Iowa 51031
Phone: 712-540-6290

From: Pahel, Lisa [mailto:Pahel.Lisa@epa.gov]
Sent: Wednesday, March 8, 2017 1:07 PM
To: Glenda Haage <glenda@consultghb.com>
Cc: Joyner, Shaja <Joyner.Shaja@epa.gov>
Subject: RE: Pending registration for 91640-A

Hi Glenda,

Thank you for your email. I have not heard anything from [redacted] Additionally, please see the attached label with some additional comments from Shaja, and please let us know if you have any questions.

Thanks,
Lisa

From: Glenda Haage [mailto:glenda@consultghb.com]
Sent: Wednesday, March 08, 2017 10:17 AM
To: Pahel, Lisa <Pahel.Lisa@epa.gov>
Subject: RE: Pending registration for 91640-A

Hi Lisa,
Just checking on this product, as I keep getting phone calls. From what my clients has told me, [redacted] would like to add this supplier to their CSF, have they contacted you in regards to this?
Sincerely,

Note new email address: glenda@consultghb.com Please update your records.

Product ingredient source information may be entitled to confidential treatment

Pahel, Lisa

From: Pahel, Lisa
Sent: Tuesday, April 05, 2016 8:36 AM
To: Glenda Haage
Cc: Garvie, Heather (Garvie.Heather@epa.gov)
Subject: RE: glufosinate [redacted] 91640-A

Hi Glenda,

Thank you for getting this to me. Yes, you still need to send a copy through front end processing (either online via the Portal or through the mail) in order to get an MRID. Please let me know if you have any questions.

Thanks,
Lisa

From: Glenda Haage [mailto:ghbconsulting@frontiernet.net]
Sent: Monday, April 04, 2016 4:48 PM
To: Pahel, Lisa <Pahel.Lisa@epa.gov>
Subject: glufosinate [redacted] 91640-A

Hi Lisa,
Attached is the manufacturing process for [redacted]
Do you want me to send in hard copy also?

thank you!

Please note new address and cell number below:

Glenda Haage
GHB Consulting
1660 3rd Ave. SW
LeMars, Iowa 51031
cell: 712-540-6290

From: Pahel, Lisa [mailto:Pahel.Lisa@epa.gov]
Sent: Thursday, March 31, 2016 2:52 PM
To: Glenda Haage <ghbconsulting@frontiernet.net>
Cc: Garvie, Heather <Garvie.Heather@epa.gov>; Holloman, Rachel <Holloman.Rachel@epa.gov>
Subject: RE: Important information required for pending registration of 91640-A

Hi Glenda,

Thanks for your response. Yes, I am reviewing this action, so feel free to direct your submission and any questions to me.

Best,
Lisa

From: Glenda Haage [mailto:ghbconsulting@frontiernet.net]
Sent: Thursday, March 31, 2016 3:45 PM
To: Pahel, Lisa <Pahel.Lisa@epa.gov>
Subject: RE: Important information required for pending registration of 91640-A

Are you the reviewer of this package?

Please note new address and cell number below:

Glenda Haage
GHB Consulting
1660 3rd Ave. SW
LeMars, Iowa 51031
cell: 712-540-6290

From: Pahel, Lisa [mailto:Pahel.Lisa@epa.gov]
Sent: Thursday, March 31, 2016 2:00 PM
To: ghbconsulting@frontiernet.net
Cc: Garvie, Heather <Garvie.Heather@epa.gov>; Holloman, Rachel <Holloman.Rachel@epa.gov>
Subject: RE: Important information required for pending registration of 91640-A
Importance: High

Hi Glenda,

I wanted to reach out to make sure you read the deficiency letter I sent you previously. I know you talked to one of our product chemists about the deficiencies and what you need to send in, **but I still need to have an email response from you submitting the required data within 10 business days of when I sent the letter**.

Please let me know that you have read and understand the letter, and submit the required documents to the Agency and send a courtesy copy (without the CBI) directly to me via email as soon as possible. Please let me know if you have any questions.

Thanks,
Lisa

From: Pahel, Lisa
Sent: Tuesday, March 29, 2016 2:02 PM
To: 'ghbconsulting@frontiernet.net' <ghbconsulting@frontiernet.net>
Cc: Garvie, Heather (Garvie.Heather@epa.gov) <Garvie.Heather@epa.gov>; Holloman, Rachel (Holloman.Rachel@epa.gov) <Holloman.Rachel@epa.gov>
Subject: Important information required for pending registration of 91640-A
Importance: High

Hi Glenda,

Please see the attached letter for important information regarding the pending registration of 91640-A. Please let me or Heather Garvie (cc'd) know if you have any questions, and please confirm via email when you have read the attached letter.

Best,
Lisa

Pahel, Lisa

From: Glenda Haage <glenda@consultghb.com>
Sent: Friday, March 03, 2017 1:56 PM
To: Pahel, Lisa
Subject: Re: Pending registration for 91640-A

Yes, I'm sure pulling double duty is hectic!

Thank you so much, I accept full responsibility for my clients wishy washy on this, I guess I didn't inform him of the PRIA changes for this. Glenda

On Mar 3, 2017, at 12:22 PM, Pahel, Lisa <Pahel.Lisa@epa.gov> wrote:

> Hi Glenda,
>
> Thank you for your email. Shaja Joyner is currently acting PM 24 (in addition to her PM 20 duties). No need to contact her separately, I will keep her in the loop on my end.
>
> Have a good weekend,
> Lisa
>
> **From:** Glenda Haage [mailto:glenda@consultghb.com]
> **Sent:** Friday, March 03, 2017 11:29 AM
> **To:** Pahel, Lisa <Pahel.Lisa@epa.gov>
> **Subject:** RE: Pending registration for 91640-A
>
> Hi Lisa,
> Erik was telling me there is a new PM for this product, is there anyone I need to contact in regards to this?
> Best,
>
> **Note new email address: glenda@consultghb.com Please update your records.**
>
> Glenda Haage
> GHB Consulting
> 1660 3rd ave SW
> LeMars, Iowa 51031
> Phone: 712-540-6290
>
> **From:** Pahel, Lisa [mailto:Pahel.Lisa@epa.gov]
> **Sent:** Thursday, March 2, 2017 4:11 PM
> **To:** Glenda Haage <glenda@consultghb.com>
> **Subject:** RE: Pending registration for 91640-A
>
> Thanks, Glenda! I'm sorry to have missed you too. My trip to Thailand was wonderful. I hope your daughter gets a chance to travel, I think safety depends on where she would like to go.
>
> Best,
> Lisa

From: Glenda Haage [mailto:glenda@consultghb.com]
Sent: Thursday, March 02, 2017 4:02 PM
To: Pahel, Lisa <Pahel.Lisa@epa.gov>
Cc: Kraft, Erik <Kraft.Erik@epa.gov>
Subject: RE: Pending registration for 91640-A

Hi Lisa,
Attached is the updated data citation form.

Thank you.
Glenda

Note new email address: glenda@consultghb.com Please update your records.

Glenda Haage
GHB Consulting
1660 3rd ave SW
LeMars, Iowa 51031
Phone: 712-540-6290

From: Pahel, Lisa [mailto:Pahel.Lisa@epa.gov]
Sent: Thursday, March 2, 2017 12:37 PM
To: Glenda Haage <glenda@consultghb.com>
Cc: Kraft, Erik <Kraft.Erik@epa.gov>
Subject: RE: Pending registration for 91640-A

Thanks, Glenda. I'll get back to you soon with any additional comments. Since this is now a cite-all, please send a revised certification with respect to data citation form with the "cite-all" box checked at your earliest convenience.

Best,
Lisa

From: Glenda Haage [mailto:glenda@consultghb.com]
Sent: Wednesday, March 01, 2017 11:08 AM
To: Pahel, Lisa <Pahel.Lisa@epa.gov>
Subject: FW: Pending registration for 91640-A

Hi Lisa,
I met with Erik last week. It is my understanding that you need to sign off on this first and then it goes to the new PM. It is hard for me to keep
up with all of the changes, as I'm sure it is for you all too.
He said he thought everything else had been completed that we are just down to the new cite-all data matrix. If this is not the case, please let me know.

How was your vacation? Did you go someplace warm and sunny?

Best,

Note new email address: glenda@consultghb.com Please update your records.

Glenda Haage
GHB Consulting
1660 3rd ave SW
LeMars, Iowa 51031
Phone: 712-540-6290

From: Glenda Haage
Sent: Monday, February 20, 2017 4:59 PM
To: Kraft, Erik <Kraft.Erik@epa.gov>
Subject: RE: Pending registration for 91640-A

Hi Erik,
I'm attaching the cite-all data matrix, OTP letters, and the remaining data submitter's list registrants.
I look forward to meeting with you and discussing this matter. See you Wednesday at 1:00.

Best,

Note new email address: glenda@consultghb.com Please update your records.

Glenda Haage
GHB Consulting
1660 3rd ave SW
LeMars, Iowa 51031
Phone: 712-540-6290

From: Kraft, Erik [mailto:Kraft.Erik@epa.gov]
Sent: Wednesday, February 15, 2017 1:52 PM
To: Glenda Haage <glenda@consultghb.com>
Subject: RE: Pending registration for 91640-A

How about 1-2 pm, next wed, there is a conference room available then.

Give me a call at 703-308-9358 and I'll meet you in the lobby.

From: Glenda Haage [mailto:glenda@consultghb.com]
Sent: Wednesday, February 15, 2017 2:43 PM
To: Kraft, Erik <Kraft.Erik@epa.gov>
Subject: Re: Pending registration for 91640-A

No I am coming to D.C.

On Feb 15, 2017, at 1:39 PM, Kraft, Erik <Kraft.Erik@epa.gov> wrote:

> Wed. is probably best I am available 8-11 and 1-3:30. I assume you want to do a conference call?
>
> **From:** Glenda Haage [mailto:glenda@consultghb.com]
> **Sent:** Wednesday, February 15, 2017 2:37 PM
> **To:** Kraft, Erik <Kraft.Erik@epa.gov>
> **Subject:** Re: Pending registration for 91640-A

Any particular time work better for you ?

On Feb 15, 2017, at 1:36 PM, Kraft, Erik <Kraft.Erik@epa.gov> wrote:

> I am available on Wed. and Thurs. next week.
>
> Thanks
> Erik
>
> **From:** Glenda Haage [mailto:glenda@consultghb.com]
> **Sent:** Wednesday, February 15, 2017 2:30 PM
> **To:** Kraft, Erik <Kraft.Erik@epa.gov>
> **Subject:** Re: Pending registration for 91640-A
>
> Would you still be able to meet with me?
>
> On Feb 15, 2017, at 1:23 PM, Kraft, Erik <Kraft.Erik@epa.gov> wrote:
>
>> Glenda,
>>
>> I'm sorry I don't have access to the file, it is locked up in Lisa's office. You should fill out the data matrix with "cite all" for generic data and list all companies on the data submitters list.
>>
>> Thanks
>> Erik
>>
>> **From:** Glenda Haage [mailto:glenda@consultghb.com]
>> **Sent:** Wednesday, February 15, 2017 2:20 PM
>> **To:** Kraft, Erik <Kraft.Erik@epa.gov>
>> **Subject:** RE: Pending registration for 91640-A
>>
>> Hi Erik,
>> I see she is out of the office until March, I'm wondering if there is anyone else I can send to? Could you meet with me next week to discuss?
>> Best regards,
>> Glenda
>>
>> **Note new email address: glenda@consultghb.com Please update your records.**
>>
>> Glenda Haage
>> GHB Consulting
>> 1660 3rd ave SW
>> LeMars, Iowa 51031
>> Phone: 712-540-6290

From: Kraft, Erik [mailto:Kraft.Erik@epa.gov]
Sent: Wednesday, February 15, 2017 12:41 PM
To: Glenda Haage <glenda@consultghb.com>
Cc: Pahel, Lisa <Pahel.Lisa@epa.gov>
Subject: RE: Pending registration for 91640-A

Glenda,

Go ahead and do the data matrix with cite all and send it to Lisa. She will review it when she returns.

Thanks
Erik

From: Glenda Haage [mailto:glenda@consultghb.com]
Sent: Wednesday, February 15, 2017 1:38 PM
To: Kraft, Erik <Kraft.Erik@epa.gov>
Cc: Pahel, Lisa <Pahel.Lisa@epa.gov>
Subject: FW: Pending registration for 91640-A

Hi Erik,
After meeting with my client and discussing the letter and new pria date with them, I have persuaded them to do a cite all.
That is what I told them originally would be the quickest route but they did not want to alert their competitors that they were getting a registration. I informed them that as soon as that label is stamped it becomes public knowledge and doing a cite all will cause a lot less work for everyone involved.
Can you help me out with this? Sorry, but this is how it normally goes as I'm sure you are aware.

Thanks much.
Glenda

Note new email address: glenda@consultghb.com Please update your records.

Glenda Haage
GHB Consulting
1660 3rd ave SW
LeMars, Iowa 51031
Phone: 712-540-6290

From: Pahel, Lisa [mailto:Pahel.Lisa@epa.gov]
Sent: Wednesday, January 18, 2017 11:40 AM
To: Glenda Haage <glenda@consultghb.com>
Cc: Kraft, Erik <Kraft.Erik@epa.gov>
Subject: RE: Pending registration for 91640-A

Hi Glenda,

Please see the attached letter and let Erik or I know if you have questions.

Thanks,
Lisa

From: Glenda Haage [mailto:glenda@consultghb.com]
Sent: Wednesday, January 18, 2017 10:27 AM
To: Pahel, Lisa <Pahel.Lisa@epa.gov>
Cc: Kraft, Erik <Kraft.Erik@epa.gov>
Subject: RE: Pending registration for 91640-A

All of them were old data except the data cited.

Note new email address: glenda@consultghb.com Please update your records.

Glenda Haage
GHB Consulting
1660 3rd ave SW
LeMars, Iowa 51031
Phone: 712-540-6290

From: Pahel, Lisa [mailto:Pahel.Lisa@epa.gov]
Sent: Wednesday, January 18, 2017 9:25 AM
To: Glenda Haage <glenda@consultghb.com>
Cc: Kraft, Erik <Kraft.Erik@epa.gov>
Subject: RE: Pending registration for 91640-A

Hi Glenda,

Thanks for sending the revised label and certification form. For the data matrix-how do you plan on meeting generic data requirements? They are still not listed on the data matrix.

Thanks,
Lisa

From: Glenda Haage [mailto:glenda@consultghb.com]
Sent: Monday, January 16, 2017 3:50 PM
To: Pahel, Lisa <Pahel.Lisa@epa.gov>
Subject: RE: Pending registration for 91640-A

Hi Lisa,
Glufosinate data matrix attached.
Glenda

Note new email address: glenda@consultghb.com Please update your records.

Glenda Haage
GHB Consulting
1660 3rd ave SW
LeMars, Iowa 51031
Phone: 712-540-6290

From: Glenda Haage
Sent: Friday, January 13, 2017 10:54 AM
To: 'Pahel, Lisa' <Pahel.Lisa@epa.gov>
Cc: Holloman, Rachel <Holloman.Rachel@epa.gov>
Subject: RE: Pending registration for 91640-A

Hi Lisa,
Attached are both the glufosinate technical labeling and certification of citation of data (which was sent with the initial submission).
Let me know if there are other needs to complete the registration.
Jane is working on the matrix, when complete I will send.
Sincerely,
Glenda

Note new email address: glenda@consultghb.com Please update your records.

Glenda Haage
GHB Consulting
1660 3rd ave SW
LeMars, Iowa 51031
Phone: 712-540-6290

From: Pahel, Lisa [mailto:Pahel.Lisa@epa.gov]
Sent: Wednesday, January 11, 2017 4:33 PM
To: Glenda Haage <glenda@consultghb.com>
Cc: Holloman, Rachel <Holloman.Rachel@epa.gov>
Subject: RE: Pending registration for 91640-A

Hi Glenda,

Thank you for your quick response. You can send me the label at your earliest convenience so I can make sure it's ready to go. Please wait on sending the data matrix until it is complete. If you are able, please send the certification with respect to citation of data form with the label as well.

Thanks,
Lisa

From: Glenda Haage [mailto:glenda@consultghb.com]
Sent: Wednesday, January 11, 2017 5:12 PM
To: Pahel, Lisa <Pahel.Lisa@epa.gov>
Subject: RE: Pending registration for 91640-A

I can definitely get you the label. Jane is retyping the matrix (which will include the identical information which was included with the submission, however, she is sick today so I'm not sure she can get it typed by then depending on how she is feeling tomorrow.
If I sent you the attachment, could you start with that since it will be the same just in different format?

Note new email address: glenda@consultghb.com Please update your records.

Glenda Haage
GHB Consulting
1660 3rd ave SW
LeMars, Iowa 51031
Phone: 712-540-6290

From: Pahel, Lisa [mailto:Pahel.Lisa@epa.gov]
Sent: Wednesday, January 11, 2017 3:41 PM
To: Glenda Haage <glenda@consultghb.com>
Cc: Holloman, Rachel <Holloman.Rachel@epa.gov>
Subject: RE: Pending registration for 91640-A

Hi Glenda,

If you do not think you will be able to get the documents (data matrix, certification with respect to citation of data, and revised label) I requested 12/1 to me by the end of this week, we will have to start preparing for a renegotiation of the PRIA date. The predecisional due date for this product is next Tuesday, and we'll need to have all the appropriate documents to determine if we can grant this registration. Please let me know if you have any questions, and when you plan on getting the documents in to me.

Thanks,
Lisa

From: Pahel, Lisa
Sent: Tuesday, January 10, 2017 8:34 AM

To: 'Glenda Haage' <glenda@consultghb.com>
Subject: RE: Pending registration for 91640-A

Thanks for the update, Glenda.

In addition to the revised data matrix, I also need the Certification with Respect to Citation of Data form as well as a revised label with the following changes:

-number the pages
-page 1: remove "by mouth" from the If Swallowed section
-page 2: "glufosinate" is spelled incorrectly in the 4th bullet point

Thanks,
Lisa

From: Glenda Haage [mailto:glenda@consultghb.com]
Sent: Monday, January 09, 2017 4:30 PM
To: Pahel, Lisa <Pahel.Lisa@epa.gov>
Subject: RE: Pending registration for 91640-A

Well, when I first ran this past the registrant he said do a cite-all. However, when I sent him a list of registrants who would have to receive letters, he said 'but they all don't have data I need'. So he wants to do a cite-all/selective cite. I have my assistant working on the data matrix referencing the data that falls under FIFRA compensable laws.
Glenda

Note new email address: glenda@consultghb.com Please update your records.

Glenda Haage
GHB Consulting
1660 3rd ave SW
LeMars, Iowa 51031
Phone: 712-540-6290

From: Pahel, Lisa [mailto:Pahel.Lisa@epa.gov]
Sent: Monday, January 9, 2017 2:26 PM
To: Glenda Haage <glenda@consultghb.com>
Subject: RE: Pending registration for 91640-A

Hi Glenda,

Just following up on this pending application since we're nearing the PRIA date of 1/31. Please let me know if I can assist you with anything.

Best,
Lisa

From: Pahel, Lisa
Sent: Friday, December 16, 2016 3:57 PM
To: 'Glenda Haage' <glenda@consultghb.com>
Cc: Kraft, Erik (Kraft.Erik@epa.gov) <Kraft.Erik@epa.gov>
Subject: RE: Pending registration for 91640-A

Hi Glenda,

Thank you for your email. I need everything to be listed on the data matrix, not referenced in an attachment. This should also include all the companies who provided generic data for this AI which you can find on the Pesticide Data Submitter's List. Please let me know if you have any questions.

Best,
Lisa

From: Glenda Haage [mailto:glenda@consultghb.com]
Sent: Friday, December 16, 2016 2:19 PM
To: Pahel, Lisa <Pahel.Lisa@epa.gov>
Subject: RE: Pending registration for 91640-A

Hi Lisa,
You should have received the a five-page studies list "Glufosinate Studies-All Submitters' attached to the data matrix.
I would have submitted it with the original submission. That has all of the studies and who provided those studies that I am referencing.
Glenda

Note new email address: glenda@consultghb.com Please update your records.

Glenda Haage
GHB Consulting
1660 3rd ave SW
LeMars, Iowa 51031
Phone: 712-540-6290

From: Pahel, Lisa [mailto:Pahel.Lisa@epa.gov]
Sent: Thursday, December 1, 2016 8:57 AM
To: Glenda Haage <glenda@consultghb.com>
Subject: Pending registration for 91640-A

Hi Glenda,

I'm reviewing the pending registration you submitted for the glufosinate product 91640-A. A few things I need from you:

1. The Certification with Respect to Citation of Data form was not included in the package I received, please send that to me at your earliest convenience
2. Please revise the data matrix to list out the individual companies subject to compensation for generic data. You can find them on the pesticide data submitter's list
3. For the label:
   -number the pages
   -page 1: remove "by mouth" from the If Swallowed section
   -page 2: "glufosinate" is spelled incorrectly in the 4th bullet point

Please let me know if you have any questions.

Thanks,
Lisa

Lisa Pahel
Environmental Protection Specialist
Fungicide and Herbicide Branch
Registration Divison
Office of Pesticide Programs
703-347-0459

<image001.png>

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

February 16, 2016

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

GHB CONSULTING
GENMERICA NA LLC.
1660 3RD AVE S.W.
LEMARS, IA 51031

Report of Analysis for Compliance with PR Notice 11-03

Thank you for your submittal of 08-FEB-16. 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 11-03. 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.

Create/E... Collections Utilities Query T... rtal Help Exit

S: 980799 Milestone Email:

Regulatory Type: Product Registration - Section 3

Application Type: New Registration

Reclamation: Yes No

Fee For Service: Yes No

Billable: Yes No

Company: 91640 GENMERICA NA LLC

Print Letter

Enter More Information

Tracking

Risk Manager: Registration Division, Risk Management Team 24

Product #: 91640-A Product Name: GLUFOSINATE-AMMONIUM TECHNICAL

Overrides:

Me Too Section3: Me Too Product Name:

Application Date: 01-Feb-2016 OPP Rec'vd Date: 08-Feb-2016

Front End Date: 09-Feb-2016 Risk Manager Send Date:

FFS Due Date: Negotiated Due Date:

OPP Target Date:

Receipt Content

Study

CSF

Fast Track: New Ingredient:

View/Edit

Receipt Description:

NEW REGISTRATION WITH STUDIES

New Ingredient Request Date:

New Ingredient Received Date:

Form A: Signature Date: Form B: Signature Date:

Please read instructions on reverse before completing f

Form ·oved, OMB No. 2070-0060, Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

☒ Registration
☐ Amendment
☐ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
91640-	Garvie	☐ None ☒ Restricted
4. Company/Product (Name)	**PM#**	
Glufosinate-Ammonium Technical	24	

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

GenMerica NA, LLC
1660 3rd Ave SW
LeMars, Iowa 51031

☐ *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. 264-646

Product Name Glufosinate-Ammonium Technical

Section – II

☐ 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.)

PRIA Action Code R334-11month review- $19838.00 fee

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 Packaging wt. / No. per container	If "Yes" Package wt. / No. per container	☐ Glass
** Certification must be submitted*			☐ Paper
			☐ Other (Specify) _____

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☒ Label ☐ Container	40, 50 LBS	☒ On Label ☐ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product

☐ Lithographed
☒ 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)
Glenda Haage	Agent	712-540-6290

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.

8. Date Application Received (Stamped)

2. Signature	3. Title
[signature]	Agent
4. Typed Name	**5. Date**
Glenda Haage	2016-01-26

GHB Consulting

49832500

January 26, 2016

Document Processing Desk (REGFEE)
Office of Pesticide Programs (7504P)
US EPA
One Potomac Yard
2777 Crystal Drive, Room S-4900
Arlington, VA 22202

Attn: Ms. Garvie
Herbicide Branch/Registration Division (7505P)

Subject: Application to register Glufosinate-Ammonium Technical (EPA Reg. No. 91640-xx)
Fee for Service-Category R 334 - $19838.00- 11 month review time

Dear Ms. Garvie;

On behalf of GenMerica NA, LLC, we are requesting registration of the above subject technical product. In support of this registration we are submitting the following documents:

- Application for Pesticide Registration (EPA form 8570-1)
- Confidential Statement of Formula (EPA Form 8570-4)
- Certification with Respect to Citation of Data (EPA Form 8570-34)
- Data Matrix (EPA Form 8570-35) (including public copy)
- Product Data (listed on transmittal document)
- Draft labeling
- Copy of PRIA payment

If you have any questions or concerns regarding this information, please contact me at 712-540-6290 or ~~ghbconsulting@frontiernet.net.~~ glenda@consultghb.com

Sincerely,

Glenda Haage

Glenda Haage
Regulatory Consultant

Transmittal Document

Name and Address of Submitter:

GenMerica NA, LLC
1660 3rd Ave SW
LeMars, Iowa 51031

Company No. 91640

Contact Person: Glenda Haage
712-540-6290

Regulatory Actions:

Submission of supportive documents for registration

Transmittal Date: January 26, 2016

Listed of Submitted Studies:

Volume No.	Guideline Requirement	Study Title	
1	830.1150, 830.1600, 830.1620, 830.1670, 830.1750, 830.1800,	Product Identity and Composition, Description of the Materials used, Description of the Production Process, Discussion of the Formation of Impurities, Certified Limits, and Enforcement of Analytical method for Glufosinate Technical	49832501
2	830.1700, 830.1800	*Preliminary Analysis of Glufosinate-ammonium TGAI*	49832502
3	830.1700, 830.1800	*Qualitative and Quantitative Profile of the Test Substance Glufosinate ammonium 95% Technical (Five Batch Analysis)*	49832503
4	830.6302, 830.6303, 830.6304, 830.6313, 830.6314, 830.7000, 830.7050, 830.7200, 830.7300, 830.7370, 830.7550, 830.7840,	*Chemical and Physical Characterization of Glufosinate-ammonium TGAI: Color, Physical State, Odor, Density, pH, Melting Point, UV-Vis, Partition Coefficient, Solubility, Vapor Pressure, Stability, Corrosion, Characteristics, Dissociation Constant, Explodability and Oxidation/Reduction*	49832504

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

			EPA Reg. No./File Symbol 91640-xx		Page 1 of 6
Applicant's/Registrant's Name & Address GenMerica NA LLC % GHB Consulting, 1660 3rd Ave SW, LeMars, IA 51031			Product Glufosinate-Ammonium Technical		
Ingredient glufosinate					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
Product Chemistry Group A	Product Identity, Composition, and Analysis Test Guidelines	Volume 1, 2, 4 , 5	GenMerica NA LLC	OWN	
Product Chemistry Group B	Physical/Chemical Properties Test Guidelines	Volume 6,7	GenMerica NA LLC	OWN	
870.1100	Acute Oral Toxicity: Rat	Cite-All	GenMerica NA LLC will make offers-to-pay to the companies listed on the following pages.	PAY	
870.1200	Acute Dermal Toxicity: Rat	Cite-All		PAY	
870.1300	Acute Inhalation Toxicity: Rat	Cite-All		PAY	
870.2400	Primary Eye Irritation: Rabbit	Cite-All		PAY	
870.2500	Primary Dermal Irritation: Rabbit	Cite-All		PAY	
870.2600	Dermal Sensitization	Cite-All		PAY	
Signature Glenda Haage			Name and Title Glenda Haage, Regulatory Agent		Date 2017-02-24

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.

Agency Internal Use Copy

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

			EPA Reg. No./File Symbol 91640-xx		Page 2 of 6
Applicant's/Registrant's Name & Address GenMerica NA LLC % GHB Consulting, 1660 3rd Ave SW, LeMars, IA 51031			Product Glufosinate-Ammonium Technical		
Ingredient glufosinate					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
GenMerica NA LLC will make offers-to-pay to the following companies on the data submitters list.					
Glufosinate Generic Data Requirements					
		Cite-all	SYNGENTA CROP PROTECTION, LLC P.O. Box 18300 410 SWING ROAD GREENSBORO,NC 27419	PAY	
		Cite-all	BAYER CROPSCIENCE LP P.O. Box 12014 2 T.W. ALEXANDER DRIVE RESEARCH TRIANGLE PARK,NC 27709	PAY	
		Cite-all	BAYER ENVIRONMENTAL SCIENCE A DIVISION OF BAYER CROPSCIENCE LP 2 T. W. ALEXANDER DRIVE RESEARCH TRIANGLE PARK,NC 27709	PAY	
		Cite-all	RECKITT BENCKISER LLC. D/B/A RECKITT BENCKISER 399 INTERPACE PARKWAY PARSIPPANY,NJ 07054	PAY	
Signature Glenda Haage			Name and Title Glenda Haage, Regulatory Agent		Date 2017-02-24

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.

Agency Internal Use Copy

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

	EPA Reg. No./File Symbol 91640-xx	Page 3 of 6
Applicant's/Registrant's Name & Address GenMerica NA LLC % GHB Consulting, 1660 3rd Ave SW, LeMars, IA 51031	Product Glufosinate-Ammonium Technical	

Ingredient glufosinate

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
		Cite-all	LOVELAND PRODUCTS, INC. P.O. Box 1286 GREELEY,CO 80632	PAY	
		Cite-all	NUFARM LIMITED NUFARM AMERICAS INC. 4020 AERIAL CENTER PKWY., STE 103 MORRISVILLE,NC 27560	PAY	
		Cite-all	ALBAUGH, LLC P.O. Box 2127 VALDOSTA,GA 31604	PAY	
		Cite-all	SPRAY DRIFT TASK FORCE MCKENNA, LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON,DC 20006	PAY	
		Cite-all	UNITED PHOSPHORUS, INC PYXIS REGULATORY CONSULTING, INC 4110 136TH ST. CT NW GIG HARBOR,WA 98332	PAY	
		Cite-all	NUFARM, INC. NUFARM AMERICAS, INC. 4020 AERIAL CENTER PKWY., SUITE 101 MORRISVILLE,NC 27560	PAY	

Signature Glenda Haage	Name and Title Glenda Haage, Regulatory Agent	Date 2017-02-24

PA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.

Agency Internal Use Copy

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

	EPA Reg. No./File Symbol 91640-xx	Page 4 of 6
Applicant's/Registrant's Name & Address GenMerica NA LLC % GHB Consulting, 1660 3rd Ave SW, LeMars, IA 51031	Product Glufosinate-Ammonium Technical	

Ingredient glufosinate

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
		Cite-all	OUTDOOR RESIDENTIAL EXPOSURE TASK FORC BEVERIDGE & DIAMOND, P.C. 1350 I STREET, N.W. WASHINGTON,DC 20005	PAY	
		Cite-all	AGRICULTURAL REENTRY TASK FORCE BEVERIDGE & DIAMOND, P.C. 1350 I STREET, N.W. WASHINGTON,DC 20005	PAY	
		Cite-all	FIFRA ENDANGERED SPECIES TASK FORCE, L C/O COMPLIANCE SERVICES INTERNATIONAL 7501 BRIDGEPORT WAY, WEST LAKEWOOD,WA 98499	PAY	
		Cite-all	RESIDENTIAL EXPOSURE JOINT VENTURE (RE CSPA/PIR 1667 K STREET, NW, SUITE 300 WASHINGTON,DC 20006	PAY	

Signature Glenda Haage	Name and Title Glenda Haage, Regulatory Agent	Date 2017-02-24

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.

Agency Internal Use Copy

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

	EPA Reg. No./File Symbol 91640-xx	Page 5 of 6
Applicant's/Registrant's Name & Address GenMerica NA LLC % GHB Consulting, 1660 3rd Ave SW, LeMars, IA 51031	Product Glufosinate-Ammonium Technical	

Ingredient glufosinate

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
		Cite-all	AGRICULTURAL HANDLER EXPOSURE TASK FOR JOHNSON MANAGEMENT & CONSULTING, LLC P.O. Box 509 1720 PROSPECT DRIVE MACON,MO 63552	PAY	
		Cite-all	CHEMSTARR LLC PYXIS REGULATORY CONSULTING INC 4110 136TH ST. CT NW GIG HARBOR,WA 98332	PAY	
		Cite-all	SUMMIT AGRO NORTH AMERICA HOLDING CORP PYXIS REGULATORY CONSULTING, INC. 4110 136TH STREET, NW GIG HARBOR,WA 98332	PAY	
		Cite-all	REDEAGLE INTERNATIONAL LLC WAGNER REGULATORY ASSOCIATES, INC. P.O. Box 640 HOCKESSIN,DE 19707	PAY	
				PAY	

Signature Glenda Haage	Name and Title Glenda Haage, Regulatory Agent	Date 2017-02-24

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.

Agency Internal Use Copy

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

			EPA Reg. No./File Symbol 91640-xx		Page 6 of 6
Applicant's/Registrant's Name & Address GenMerica NA LLC % GHB Consulting, 1660 3rd Ave SW, LeMars, IA 51031			Product Glufosinate-Ammonium Technical		
Ingredient glufosinate					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
		Cite-all	WILLOWOOD, LLC WAGNER REGULATORY ASSOCIATES, INC. P.O. Box 640 HOCKESSIN,DE 19707	PAY	
		Cite-all	RAYMAT MATERIALS, INC. PYXIS REGULATORY CONSULTING, INC. 4110 136TH ST., CT. NW GIG HARBOR,WA 98332	PAY	
		Cite-all	ORION GFS, LLC SOURCE DYNAMICS LLC 12230 E DEL NORTE YUMA,AZ 85377	PAY	
		Cite-all	SUMMIT AGRO USA, LLC PYXIS REGULATORY CONSULTING, INC 4110 136TH ST. NW GIG HARBOR,WA 98332	PAY	
		Cite-all	WILLOWOOD GLUFOSINATE AMMONIUM, LLC PYXIS REGULATORY CONSULTING, INC 4110 136TH STREET CT NW GIG HARBOR,WA 98332	PAY	
Signature Glenda Haage			Name and Title Glenda Haage, Regulatory Agent		Date 2017-02-24

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.

Agency Internal Use Copy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

OPP Decision Number: 513664
EPA File Symbol: 91640-A
Product Name: Glufosinate Ammonium Technical
EPA Receipt Date: 02/08/2016
EPA Company Number: 91640
Company Name: GenAmerica NA, LLC

March 29, 2016

Glenda Hage
Regulatory Consultant
GenMerica NA, LLC
1660 3rd Ave SW
LeMars, IA 51031

Dear Ms. Hage:

The Agency has completed its preliminary technical screening of your application pursuant to Section 33(f)(4)(B)(i)(II) of the Federal Insecticide, Fungicide, and Rodenticide (FIFRA) Act, as amended by the Pesticide Registration Improvement Extension Act. The Agency has determined that your application has not passed the preliminary technical screen and therefore is subject to rejection if the application is not corrected.

No data were submitted for the guidelines 830.1600 (starting materials), 830.1620 (production process), and 830.1650 (discussion on the formation of impurities) for the production site [redacted] These data must be submitted. Since the impurity profile of the technical product produced at two sites is different, the manufacturing process and starting materials cannot be the same.

In order for the review of your product to continue, you will need to correct your application to address the item(s) listed above within 10 business days of the date you received this letter. Corrections must be received by EPA by the 10th business day. If studies or confidential information are being submitted by mail, a courtesy copy received by email (without the CBI) by the deadline will be considered timely. If you cannot correct the application [or do not respond] within 10 business days, your application will be rejected.

Product ingredient source information may be entitled to confidential treatment

At this time you could also choose to withdraw your application. If you have questions, please contact Lisa Pahel at pahel.lisa@epa.gov or (703) 347-0459.

Sincerely,

Susan T. Lewis

Susan Lewis, Director
Registration Division (7505P)
Office of Pesticide Programs

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

January 18, 2017

Glenda Haage
Agent for GenMerica NA, LLC
GenMerica NA, LLC
c/o GHB Consulting
1660 3rd Ave SW
LeMars, Iowa 51031

Subject:	75-Day Data Deficiency Letter
Product Name:	Glufosinate-Ammonium Technical
EPA File Symbol:	91640-A
Application Date:	February 1, 2016
EPA Receipt Date:	February 8, 2016

Dear Ms. Haage:

The Agency has received and begun its in-depth review of the subject application and has determined that it is incomplete or that further information is needed. This letter is a written notification of those deficiencies and identifies your options under 40 CFR 152.105 and Section 33 of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended by the Pesticide Registration Improvement Extension Act (PRIA 3). Your options under 40 CFR 152.105 and section 33 of FIFRA are addressed separately because each involves a different timeframe and set of options for responding to this letter. Please ensure that you consider each of the sections below in determining how and when you respond to this letter.

40 CFR 152.105:

Pursuant to 40 CFR 152.105, you are allowed 75 days from the date of this letter ending **1/23/2017 (due to the 1/31/17 PRIA Date)** to provide a response concerning the deficiencies listed in this letter. Your response may include making corrections or additions to complete the application, or notifying the Agency of the date on which you expect to complete the application, or withdrawing your application. If you do not respond to this letter within 75 days or if you respond with a date on which you expect to complete the application but fail to meet that scheduled date, the Agency will treat the application as if you had withdrawn it. Withdrawal concludes the Agency's review of your application. Any subsequent submission of the same application must then be submitted as a new application with a new deadline for EPA to make a determination on your application and subject to a new registration service fee.

The deficiencies identified in the Agency's review at this time are:

1. If you wish to do a selective citation for all generic data you must submit a revised data matrix with all studies listed, including all old and new compensable studies, and list them out by guideline; that are relevant to the uses on your label. Refer to NPIRs or glufosinate registration review actions and supporting documents (see docket EPA-HQ-OPP-2008-0190).
2. Or you may submit a revised data matrix and list cite all for all generic data and list all companies listed on the data submitters list.

Further review of your application and your response to the deficiencies may identify additional deficiencies and you will be so informed.

FIFRA Section 33/PRIA:

This application is also subject to a deadline for making a determination on the application under FIFRA Section 33, Pesticide Registration Service Fees, established under PRIA. The time frame for the Agency to make a determination on this application ends on **1/31/2017**. Because the deadline for the agency to make a determination on this application expires before the end of the 75 days, in order to respond to the deficiencies noted above, you have the following three options:

1. **Establish a new due date.** You may work with us to establish a new section 33/PRIA deadline that allows for an appropriate response to the 75 day letter. If you choose this option, you need to contact the Agency not later than **1/23/2017** to discuss a time frame that allows you to address the deficiencies listed above and the Agency to make a regulatory decision.

2. **Withdraw the application.** Alternatively, you may notify us not later than **1/23/2017** that you are withdrawing your application. **As noted above, withdrawal concludes the Agency's review** of your application; however, you may resubmit your application after the deficiencies have been addressed. Should you choose to resubmit your application, it would be subject to a new deadline for making a determination on your application and a new registration service fee. Since a fee was paid with this application, the Agency will provide any applicable refund as soon as practicable.

3. **Not respond.** If the Agency does not hear from you by **1/23/2017**, the Agency in meeting its obligations under section 33/PRIA may issue a determination to not grant your application. While a determination to not grant an application would allow EPA to have met its obligation under section 33 of FIFRA to issue a determination by a specified date, this determination is neither a denial of the application pursuant to section 3(c)(6) of FIFRA or a withdrawal of the application. Thus, the Agency will continue to diligently work on any such application as long as EPA receives a response to a deficiency notice within the 75 days described above.

Please respond to this letter by **1/23/2017** by contacting Lisa Pahel by telephone number on (703) 347-0459 or by email at pahel.lisa@epa.gov with a response and for any questions

concerning this letter. When submitting information or data in response to this letter, a copy of this letter should accompany the submission to facilitate processing.

Sincerely,

Erik Kraft, Acting Product Manager 24
Fungicide and Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

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

April 28, 2016

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

GHB CONSULTING
GENMERICA NA LLC.
46 LAURA DRIVE
LEMARS, IA 51031

Report of Analysis for Compliance with PR Notice 11-03

Thank you for your submittal of 06-APR-16. 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 11-03. 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.

Receipt for Section 3

S: 984235 Milestone Email:

Regulatory Type: Product Registration - Section 3

Application Type: New Registration

Company: 91640 GENMERICA NA LLC.

Resubmission: Yes No

Fee For Service: Yes No

Billable: Yes No

Print Letter

Enter More Information

Tracking

Risk Manager: Registration Division, Risk Management Team 24

Product #: 91640-A Product Name: GLUFOSINATE-AMMONIUM TECHNICAL

Override#:

Me Too Section3:

Me Too Product Name:

Application Date: 04-Apr-2016

Front End Date: 07-Apr-2016

FFS Due Date:

OPP Target Date:

OPP Rec'vd Date: 06-Apr-2016

Risk Manager Send Date: 07-Apr-2016

Negotiated Due Date:

Receipt Content	Des
Study	

Fast Track:

New Ingredient:

View/Edit

Receipt Description:

response to Agency letter of 3/29/16: data for guideline series 830.1600, 830.1620 and 830.1650

New Ingredient Request Date:

New Ingredient Received Date:

Form A: Signature Date

Form B: Signature Date:

GHB Consulting

49889400

April 4, 2016

Document Processing Desk
Office of Pesticide Programs (7504P)
US EPA
One Potomac Yard
2777 Crystal Drive, Room S-4900
Arlington, VA 22202

Attn: Ms. Lisa Pahel
Herbicide Branch/Registration Division (7505P)

Subject: Glufosinate-Ammonium Technical (EPA Reg. No. 91640-A)
Response to Agency letter dated March 29, 2016

Dear Ms. Pahel;

On behalf of GenMerica NA, LLC, we are submitting the data for guidelines 830.1600; 830.1620; and 830.1650 for [redacted]

If you have any questions or concerns regarding this information, please contact me at 712-540-6290 or ghbconsulting@frontiernet.net.

Sincerely,

Sincerely,

Glenda Haage

Glenda Haage
Regulatory Consultant

Product ingredient source information may be entitled to confidential treatment

Transmittal Document

Name and Address of Submitter:

GenMerica NA, LLC
1660 3rd Ave SW
LeMars, Iowa 51031

Company No. 91640

Contact Person: Glenda Haage
712-540-6290
ghbconsulting@frontiernet.net

Regulatory Actions:

Submission of supportive documents for registration

Transmittal Date: April 4, 2016

Listed of Submitted Studies:

Volume No.	Guideline Requirement	Study Title
49889401	830.1150, 830.1600, 830.1620, 830.1670, 830.1750, 830.1800,	Product Identity and Composition, Description of the Materials used, Description of the Production Process, Discussion of the Formation of Impurities, Certified Limits, and [redacted] Analytical method for Glufosinate Technical

Product ingredient source information may be entitled to confidential treatment

Please read instructions on reverse before completing form.

Form Approved, OMB No. 2070-0060, Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

☒ Registration
☐ Amendment
☐ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
91640-	Garvie	☐ None ☒ Restricted
4. Company/Product (Name)	**PM#**	
Glufosinate-Ammonium Technical	24	

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

GenMerica NA, LLC
1660 3rd Ave SW
LeMars, Iowa 51031

☐ *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 March 29, 2016
☐ 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.)

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
* *Certification must be submitted*	If "Yes" Unit Packaging wt. / No. per container	If "Yes" Package wt. / No. per container	☐ Glass
			☐ Paper
			☐ Other (Specify) _____

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☒ Label ☐ Container	40, 50 LBS	☒ On Label ☐ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product
☐ Lithographed
☒ 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)
Glenda Haage	Agent	712-540-6290

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.

8. Date Application Received (Stamped)

2. Signature	3. Title
Glenda Haage	Agent
4. Typed Name	**5. Date**
Glenda Haage	2016-04-04

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the completed form to this address.

Certification with Respect to Citation of Data

Applicant's/Registrant's Name, Address, and Telephone Number GenMerica NA, LLC,1660 3rd Ave SW, LeMars, Iowa 51031; 712-540-6290	**EPA Registration Number/File Symbol** 91640-xx
Active Ingredient(s) and/or Representative Test Compound(s) Glufosinate-ammonium	**Date** 2017-02-17
General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 158) terrestrial food, terrestrial feed	**Product Name** Glufosinate-Ammonium Technical

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

☐ I am responding to a Data-Call-In Notice, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

SECTION I: METHOD OF DATA SUPPORT (check one method only)

☒ I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose	☐ I am using the selective method of support (or cite-all option under the selective method), and have included with this form a completed list of data requirements (the Data Matrix form must be used)

SECTION II: GENERAL OFFER TO PAY

(Required if using the cite-all method or when using the cite-all option under the selective method to satisfy one or more data requirements.)

☒ 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.

SECTION III: CERTIFICATION

I certify that this application for registration, this form for reregistration, or this Data-Call-In response is supported by all data submitted or cited in the application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section I, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses.

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

I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter; (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (I) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (II) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study.

I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of my product in conformity with FIFRA.

I certify that the statements I have made on this form and all attachments to it 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.

Signature	Date	Typed or Printed Name and Title
Glenda Haage	2017-02-17	Glenda Haage, Regulatory Agent

EPA Form 8570-34 (9-97) Electronic and Paper versions available. Submit only Paper version.

FEE

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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION
OFFICE OF PESTICIDE PROGRAMS REGISTRATION DIVISION (7505P)

Product ingredient source information may be entitled to confidential treatment

BAR CODE No.: D432333 **FILE SYMBOL No:** 91640-A **DECISION No.**:513664; **PRODUCT NAME:** Glufosinate Ammonium Technical: **PC Code(s)**:128850: **ACTION CODE**: R334; **FOOD Use**: Yes

This Document Contains Confidential Information

DATE OUT: 12/01/16

SUBJECT: Product Chemistry Review of TGAI
Product Name: Glufosinate Ammonium Technical

FROM: Indira Gairola / Product Chemistry Team 12/01/16
CITAB/RD (7505P)

SBM 12-01-16

TO: Lisa Pahel / Heather Garvie RM 24
FH Branch / Registration Division (7505P)

COMPANY: GenMerica, NA, LLC [redacted]

Active Ingredient(s): Glufosinate Ammonium Technical (98.2%) & (95.09% [redacted]

MRID No(s). MRID No's 498325-01 to -02, 498325-03 &498894-01(-03 for 5 batch [redacted] & 498325-04

INTRODUCTION:

Registrant is submitting registration application for subject product Glufosinate Ammonium Technical Basic Formulation CSF dated 01/12/16 (MRID# 498325-01, -02 &-04) produced by [redacted] & Alternate Formulation dated 01/12/16 (MRID #498325-03, & 498894-01 by [redacted] for product chemistry Group A and Group B data to support this application.
CITAB (Chemistry Team) has been asked to determine the acceptability of the aforementioned subject product chemistry data and CSFs.

SUMMARY OF FINDINGS:

1. Group A guidelines: 830.1550 (Product identity & composition) MRID #498325-01 & 498894-01. Data for the identity and position of the product were provided. The active ingredient "Glufosinate Ammonium Technical" is present at a nominal concentration of Alternate Formulation 95.0%, Basic Formulation 98.0%. The product chemistry data submitted corresponding to Guideline 830.1550 satisfy the data requirements of 40CFR§158.320.

830.1600 (Description of materials used to produce the product) MRID #s 498325-01 &498894-01. The registrant provided a list of suppliers and MSDSs for the materials used to produce the product. The product chemistry data submitted corresponding to Guideline 830.1600 satisfy the data requirements of 40CFR§158.325.

830.1620 (Description of production process) 498325-01 &.498894-01 The production process by was described by [redacted] The product chemistry data submitted corresponding to Guideline 830.1620 satisfy the data requirements of 40CFR§ 158.330

830.1670 (Discussion on the formation of impurities). 498325-01&498894-01 A discussion of the origin and mechanism formation for the impurities in the product was provided. Applicant provided analyses of all process related impurities. The Analysis was performed using validated methods of technical by HPLC/MS equipped with UV detector.

External standard quantitation methods were used to quantify the levels of a.i. and associated impurities. As per CITAB No impurities of significant toxicological concern were detected. Data submitted corresponding to Guideline 830.1670 satisfy the data requirements of 40CFR§158.340.

830.1700 (Preliminary analysis) #498325-02 & 498325-03. Results of a five-batch preliminary analysis were provided in. The total recovery content of a.i are within the certified limits specified on the CSF dated 01/12/16. The product chemistry data submitted corresponding to Guideline 830.1700 satisfy the data requirements of 40CFR§158.345.

30.1750 (Certified limits) for Basic CSF dated 01/12/16. Certified limits were provided for the active ingredient and upper certified limits were provided for the impurities in the product. Content of a.i. ranged from 95.0% -100% with an average of 98.%. The proposed upper limit is 100 % and the lower limit is 95.3%.
The product chemistry data submitted corresponding to Guideline 830.1750 satisfy the data requirements of 40CFR§158.350

830.1800 (Enforcement analytical method) MRID #498325-02 &498894-01. A description of the enforcement analytical method and its validation were provided. The Analysis of Dicamba sodium technical by HPLC-DAD equipped with UV/FID detectors & MS spectrometry were used. TGAI were validated for specificity, linearity, accuracy, precision and intermediate precision. Average total closure of the five lots samples was reported. The product chemistry data submitted corresponding to Guideline 830.1800 satisfy the data requirements of 40CFR§158.355.
For details please refer to the Confidential Appendix

2. Group B guidelines (physical-chemical properties) The Data submitted is listed in the following pages.

CONCLUSIONS:

The (CITAB/ Product Chemistry Team has reviewed the product chemistry data submitted for "Glufosinate Ammonium Technical" and concluded:

1. All product chemistry data submitted for guideline 830 Series group A are acceptable.

2. The Basic and alternate CSF both dated 01/12/16 are acceptable, except The known impurity Ethanol is not listed in the CSF (since it is not prsent in significant amount/ concern).

3. No impurity of significant toxicological concern was identified as per CITAB, for details please refer to the Confidential Appendix and summary of findings.

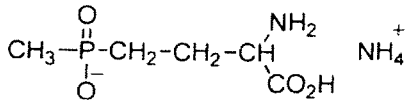
4. Product chemistry data corresponding to 830 series group B (Physical-Chemical properties) are listed in the following pages. All data have been determined acceptable except Storage Stability data that are required.

Table 2: Physical and Chemical Properties: Glufosinate Ammonium Technical

GLN	Requirement	MRID	Status	Result or Deficiency
830.6302	Color	498325-04	A	White
830.6303	Physical state	498325-04	A	Solid powder
830.6304	Odor	498325-04	A	Odorless at room temperature
830.6313	Stability to normal and elevated temperatures, metals, and metal ions	498325-04	A	54 ± 2 °C: The test item is considered to be stable in terms of ac ingredient content when exposed to iron, aluminium, I (II) acetate and aluminium acetate for 14 days at 54 ± 2
830.6314	Oxidation/reduction: chemical incompatibility	498325-04	A	Does not contain oxidizing hazard agents
830.6315	Flammability	498325-04	W	This solid product is a TGAI and will not self-ignite nor is it highly flammable.
830.6316	Explodability	498325-04	W	This solid product is a TGAI and does not have the potential to explode; therefore it is requested that the requirement for this data be waived.
830.6317	Storage stability		G	Not submitted
830.6319	Miscibility	498325-04	NA	Not an emulsifiable liquid to be diluted with petroleum solvent therefore it is not required.
830.6320	Corrosion characteristics	498325-04	A	The test item is considered to be compatible with the package (100 mL double-decked plastic bags in paper tube) at 54 ± 2 °C for 14 days
830.7000	pH		A	.4.39@25°C
830.7050	UV/Visible absorption	498325-04	A	See Table below:
830.7100	Viscosity		NA	Solid
830.7200	Melting point	498325-04	A	Technical sample melts 211.4°C
830.7220	Boiling point		NA	Solid
830.7300	Density	498325-04	A	1.39 mg / L@20°C
830.7550	Octanol / water Partition coefficient	498325-04	A	22 ± 1 °C: Log_{10} Pow = -1.37
830.7950	Vapor pressure	498325-04	A	20 C: 2.24×10^{-3} mPa; 25 C: 6.01×10^{-3} mPa
	Water solubility	498325-04	A	Water (pH = 4.50): 988.84 g/L
	Dissociation Constant	498325-04	A	Dissociation Constant: Room Temperature*: 1.94, 2.96 and 9.77

UV-Vis	pH 4.54	$Log_{10}\varepsilon$ (212 nm) = 1.81 $Log_{10}\varepsilon$ (218 nm) = 1.52
	pH 0.93	$Log_{10}\varepsilon$ (212 nm) = 1.74 $Log_{10}\varepsilon$ (218 nm) = 1.68
	pH 12.48	$Log_{10}\varepsilon$ (212 nm) = 1.70 $Log_{10}\varepsilon$ (218 nm) = 2.05

IDENTITY



Glufosinate-ammonium

CONFIDENTIAL APPENDIX (is listed in the following pages)

Pages 50-70 Manufacturing process information may be entitled to confidential treatment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460
OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION
OFFICE OF PESTICIDE PROGRAMS REGISTRATION DIVISION (7505P)

DP BARCODE No.: D432333; **FILE SYMBOL No.**: 91640-A (screen); **PRODUCT NAME**: Glufosinate-Ammonium Technical; **DECISION No.**:513664; **PC Code(s)**: 128850; **ACTION CODE**: R334; **FOOD Use**: Yes

DATE OUT: March 25, 2016

SUBJECT: 45/90 day screen results for technical product "Glufosinate-Ammonium Technical"

FROM: Shyam Mathur,
Product Chemistry Team Leader
CITAB/RD (7505P)

TO: Lisa Pahel / Heather Garvie, RM 24
F-H Branch / RD (7505P)

Company Name: Genmerica NA, LLC
Active Ingredient(s): Glufosinate-Ammonium (98.0%)
MRID No(s).: 49832501, 49832502 (5 batch for [redacted], 49832503 (5 batch for [redacted] & 49832504

CONCLUSION:

Deficiencies: Yes
(if there are deficiencies they are indicated below each heading as Note 1, Note 2 Etc)

Group A: All required data submitted for [redacted]

Note 1: No data submitted for the guidelines 830.1600 (starting materials), 830.1620 (production process), and 830.1650 (discussion on the formation of impurities) for the production site – [redacted] These data must be submitted. Since the impurity profile of the technical product produced at two sites is different, the manufacturing process & starting materials cannot be same.

Group B: All required data submitted

CSF: Basic CSF (dated 01-12-2016; [redacted] submitted
Alternate CSF #1 (dated 01-12-2016; [redacted] submitted

DRAFT PRODUCT LABEL: Submitted

Note to PM: If the deficiencies are found in the screen results, please inform the registrant and bring back to the author of this report the corrected deficiencies in response to 10 day letter. The corrected deficiencies will be attached to the original bean, if the data package is still in CITAB. New Bean is required in case the bean has been closed by CITAB. Thank you.

Product ingredient source information may be entitled to confidential treatment

PRIA 3 – 21 Day Content Screen Review Worksheet

(EPA/OPP Use Only)

September 2012

21 Day Screen Start Date: 2-8-16

Experts In-Processing Signature: B.B. Date 2-11-16 Fee Paid: Yes ✓

Division management contacted on issues No_____ Yes_____ Date_____

EPA Reg. Number: 91640-A	EPA Receipt Date: 2-8-16

	Items for Review			Yes	No	N/A*
1	**Application Form** (EPA Form 8570-1) signed & complete including package type			X		
2	**Confidential Statement of Formula** all boxes completed, form signed, and dated (EPA Form 8570-4)			X		
	a) All inerts, including fragrances, approved for the proposed uses (see Footnote A) No inerts to Review	yes	no			
3	**Certification with Respect to Citation of Data** (EPA Form 8570-34) completed and signed (N/A if 100% repack)			X		
	Certificate and data matrix consistent			X		
	If applicant is relying on data that are compensable, is the offer to pay statement included. (see Footnote B)	yes	no			
	If applicable, is there a letter of Authorization for exclusive use only.					
4	**Formulator's Exemption Statement** (EPA Form 8570-27) completed and signed (N/A if source is unregistered or applicant owns the technical)					X
5	**Data Matrix** (EPA Form 8570-35) both internal and external copies (PR 98-5) completed and signed (N/A if 100% repack)			X		
		yes	no			
	a) Selective Method (Fee category experts use)	X				
	b) Cite-All (Fee category experts use)					
	c) Applicant owns all data (Fee category experts use)					
6	**5 Copies of Label (Electronic labels on CD are encouraged and guidance is available)**			X		
7	**Is the data package consistent with PR Notice 86-5**			X		
8	**Notice of Filing included with petitions**					X

9	**If applicable for conventional applications, <u>reduced risk rationale</u>**			X
10	**<u>Required Data</u> and/or data waivers. See Footnote C.**			
	a) List study (or studies) not included with application			

Comments:

Documentation (Pass) or Fail
- All Required Forms Complete

Inerts: (Pass) or Fail
- Technical and Impurities Only
No Inerts to Review

PRN 11-03 (Pass) or Fail
- MRID: 498325

SV 2/26/16

Overall Status: (Pass) or Fail

* N/A – Not Applicable

Footnotes

A. During the 21 day initial content review, all CSFs will be reviewed to determine whether all inerts listed, including fragrances, are approved for the proposed uses or have an application pending with the Agency. If an unapproved inert with no application pending with the Agency is identified, the applicant must either 1) resolve the inert issue by, for example, removing the inert, substituting it with an approved inert, submitting documentation that EPA approved the inert for the proposed pesticidal uses, correcting mistakes on the CSF, etc. or 2) provide the data to support OPP approval of the inert or 3) withdraw the application. Removing or substituting an inert ingredient will require a new CSF and may require submission of data. All information, forms, data and documentation resolving the inert issue must have been received by the Agency or the application withdrawn within the 21 day period, otherwise, the Agency will reject the application as described below.

To successfully complete this aspect of the 21 day initial content screen, applicants are **strongly encouraged** to verify that all inert ingredients have been approved for the application's uses or have an application pending with the Agency **even if a product is currently registered** by consulting the inert Web site and if the inert is not approved nor has an application pending with the Agency, to **obtain the necessary inert approval prior to submitting an application to register a pesticide product containing that inert ingredient.** Some inert ingredients are no longer approved for food uses or certain types of uses. The name and/or CAS number on a CSF must match the name and CAS number on this web site. Simple typographical errors in the name or CAS number have resulted in processing delays.

If an inert is not listed on the inert ingredient web site and the applicant believes that the inert has been approved, the applicant should contact the Inert Ingredient Assessment Branch (IIAB) at inertsbranch@epa.gov and resolve the issue. Copies of the correspondence with IIAB resolving the issue should accompany the application. All new inerts except PIP inerts are reviewed by IIAB. The IIAB should also be contacted for any questions on what supporting data needs to be submitted for and the Agency's inert review process. Questions on PIP inerts should be directed to the Chief of Microbial Pesticides Branch.

When a brand, trade, or proprietary name of an inert ingredient is listed on a CSF, additional information such as an alternate name of the inert, CAS number or other information must also be included to enable the Agency to determine if it has been approved. Each component of an inert mixture (including a fragrance) must be identified. In some cases, the supplier of the mixture or fragrance may need to provide this information to the Agency. Prior to the Agency's receipt of an application, applicants must arrange with a proprietary mixture or fragrance supplier to provide the component information to the Agency or promptly upon EPA's request. If the inert ingredients in a proprietary blend (including fragrances) cannot or are not identified or provided within the 21-day content review period, the Agency will reject the application.

During the 21 day content review, applicants should submit information to the individual identified by the Agency when the applicant is informed of an unapproved inert.

Unapproved Inerts Identified on CSFs

All applications except conventional new products and PIPs

Once an unapproved inert is identified on a CSF, the Agency will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or

2. Provide the required information necessary to identify an inert approval application that is pending with the Agency; or

3. Submit the information and data needed for the Agency to approve the unapproved inert. If this option is selected and implemented, the Agency may request an extension in the PRIA decision review timeframe to accommodate the inert review/approval process;

4. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of these options is selected and implemented by the applicant within the 21 day content review period, the Agency will reject the application and retain 25% of the full fee of the category identified.

Conventional New Product Applications

When the Registration Division identifies an unapproved inert on a CSF with an application for a new product that the applicant has not identified as requiring an inert approval (R300 or R301), it will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or

2. Submit the information and data needed for the Agency to approve the unapproved inert, including any required petition to establish or amend a tolerance or exemption from a tolerance. (This option may change the PRIA category for the application, which could require a longer decision review time and a larger fee. If additional fees are due, they must be received by the Agency within the 21 day content review period.)

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21-day content-review period, the Agency will reject the application and retain 25% of the appropriate fee for the new product-inert approval category.

PIP Applications

When the Biopesticide and Pollution Prevention Division identifies an unapproved inert on a PIP CSF and a request to approve the inert does not accompany the application, it will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the spelling or name of the inert to that in 40 CFR 174, or providing documentation that the inert has been approved; or

2. Submit the information and data needed for the Agency to approve the unapproved inert. If an inert ingredient tolerance exemption petition is required, the petition must be received by the Agency and the B903 fee paid within the 21 day period. If this option is selected and implemented, the Agency will discuss harmonizing the timeframe for both actions.

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21 day content review period, the Agency will reject the application and retain 25% of the fee.

B. A policy on documentation of offers to pay is still being developed, however, for a me-too or fast track (similar/identical) new product, R300 or A530, an application without the necessary authorizations of offers to pay will be placed into either R301 or A531. The Agency recommends that authorizations of offers to pay be submitted with other PRIA applications to avoid delays in the Agency's decision.

C. Biopesticide applicants are advised to contact the Agency and discuss study waivers prior to submitting their application to the Agency. Documentation of such discussions should be submitted with the study waiver.

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

February 10, 2016

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

OPP Decision Number: D-513664
EPA File Symbol or Registration Number: 91640-A
Product Name: GLUFOSINATE-AMMONIUM TECHNICAL
EPA Receipt Date: 08-Feb-2016
EPA Company Number: 91640
Company Name: GENMERICA NA LLC.

GLENDA HAAGE
GHB CONSULTING
GENMERICA NA LLC.
1660 3RD AVE S.W.
LEMARS, IA 51031-

SUBJECT: Receipt of Registration Application Subject to Registration Service Fee

Dear Registrant:

The Office of Pesticide Programs has received your application and certification of payment. If you submitted data with this application, the results of the PRN-2011-3 screen will be communicated separately. During the administrative screen, the Office of Pesticide Programs has determined that this Action is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The Action has been identified as Action Code: R334

NEW PRODUCT;MUP OR END USE PRODUCT WITH UNREGISTERED SOURCE OF THE ACTIVE INGREDIENT;REQUIRES SCIENCE DATA REVIEW;NEW PHYSICAL FORM;SELECTIVE DATA CITATION;

No additional payment is due at this time.

If you have any questions, please contact the Pesticide Registration Service Fee Ombudsman at (703) 308-9362.

Sincerely,
Teresa Downs
Front End Processing Staff
Information Technology & Resources Management Division

Fee for Service

{980799I~

This package includes the following

- ◉ New Registration
- ○ Amendment

☑ Studies? ☐ Fee Waiver?

☐ volpay % Reduction: ___

for Division

- ○ AD
- ○ BPPD
- ◉ RD

Risk Mgr. 24

Receipt No. S-	980799
EPA File Symbol/Reg. No.	91640-A
Pin-Punch Date:	2/8/2016

☐ This item is NOT subject to FFS action.

Action Code:

Requested: R-334

Granted: R-334

Amount Due: $ 19,838.00

Parent/Child Decisions:

▣ Inert Cleared for Intended Use ▣ Uncleared Inert in Product

Reviewer: Venus Gagle Date: 2/10/16

Remarks:

SIM CLINIC

Create/E... Collections Utilities Query T... Portal Help Exit

S: 980799 Milestone Email:

Regulatory Type: Product Registration - Section 3

Resubmission: Yes No

Fee For Service: Yes No

Application Type: New Registration

Billable: Yes No

Company: 91640 GENMERICA NA LLC

Print Letter

Enter More Information

Tracking

Risk Manager: Registration Division, Risk Management Team 24

Product #: 91640-A Product Name: GLUFOSINATE-AMMONIUM TECHNICAL

Override#:

Me Too Section3: Me Too Product Name:

Application Date: 01-Feb-2016 OPP Rec'vd Date: 08-Feb-2016

Front End Date: 09-Feb-2016 Risk Manager Send Date:

FFS Due Date: Negotiated Due Date:

OPP Target Date:

Receipt Content

Study

CSF

Fast Track: New Ingredient:

View/Edit

Receipt Description:

NEW REGISTRATION WITH STUDIES

New Ingredient Request Date:

New Ingredient Received Date:

Form A: Signature Date: Form B: Signature Date:

Glenda Haage

From: notification@pay.gov
Sent: Monday, February 01, 2016 4:04 PM
To: ghbconsulting@frontiernet.net
Subject: Pay.gov Payment Confirmation: PRIA Service Fees

Your payment has been submitted to Pay.gov and the details are below. If you have any questions regarding this payment, please contact Michael Yanchulis at (703) 347-0237 or yanchulis.michael@epa.gov.

If you chose the option to receive payment reminders in your user profile and this is a deferred or recurring payment, you will receive a reminder email several days before the payment is processed. You may change your payment reminder preferences and email address in your user profile at any time.

If you wish to cancel this transaction, log in to your account at https://www.pay.gov/ and choose the Pending tab of the Payment Activity page.

Application Name: PRIA Service Fees
Pay.gov Tracking ID: 25PN3E4G
Agency Tracking ID: 74951435417

Account Holder Name: GenMerica NA LLC
Transaction Type: ACH Debit
Transaction Amount: $19,838.00
Payment Date: 02/02/2016
Account Type: Business Checking
Routing Number: 075000022
Account Number: **********7907

Transaction Date: 02/01/2016 05:03:42 PM EST
Total Payments Scheduled: 1
Frequency: OneTime

Registration Number:
Company Name: GenMerica NA LLC
Company Number: 712-540-6290
Action Code: R334

THIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.

Please read instructions on reverse before completing fo

Form roved, OMB No. 2070-0060, Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

☒ Registration
☐ Amendment
☐ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
91640-	Garvie	☐ None ☒ Restricted
4. Company/Product (Name) Glufosinate-Ammonium Technical	PM# 24	

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

GenMerica NA, LLC
1660 3rd Ave SW
LeMars, Iowa 51031

☐ *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. 264-646

Product Name Glufosinate-Ammonium Technical

Section – II

☐ 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.)

PRIA Action Code R334-11month review- $19838.00 fee

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
* *Certification must be submitted*	If "Yes" Unit Packaging wt. / No. per container	If "Yes" Package wt. / No. per container	☐ Glass
			☐ Paper
			☐ Other (Specify) _____

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☒ Label ☐ Container	40, 50 LBS	☒ On Label ☐ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product
☐ Lithographed
☒ 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)
Glenda Haage	Agent	712-540-6290

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.

8. Date Application Received (Stamped)

2. Signature	3. Title
[illegible]	Agent
4. Typed Name	**5. Date**
Glenda Haage	2016-01-26

GHB Consulting

January 26, 2016

Document Processing Desk (REGFEE)
Office of Pesticide Programs (7504P)
US EPA
One Potomac Yard
2777 Crystal Drive, Room S-4900
Arlington, VA 22202

Attn: Ms. Garvie
Herbicide Branch/Registration Division (7505P)

Subject: Application to register Glufosinate-Ammonium Technical (EPA Reg. No. 91640-xx)
Fee for Service-Category R 334 - $19838.00- 11 month review time

Dear Ms. Garvie;

On behalf of GenMerica NA, LLC, we are requesting registration of the above subject technical product. In support of this registration we are submitting the following documents:

- Application for Pesticide Registration (EPA form 8570-1)
- Confidential Statement of Formula (EPA Form 8570-4)
- Certification with Respect to Citation of Data (EPA Form 8570-34)
- Data Matrix (EPA Form 8570-35) (including public copy)
- Product Data (listed on transmittal document)
- Draft labeling
- Copy of PRIA payment

If you have any questions or concerns regarding this information, please contact me at 712-540-6290 or ghbconsulting@frontiernet.net.

Sincerely,

Glenda Haage
Regulatory Consultant

Transmittal Document

Name and Address of Submitter:

GenMerica NA, LLC
1660 3rd Ave SW
LeMars, Iowa 51031

Company No. 91640

Contact Person: Glenda Haage
712-540-6290

Regulatory Actions:

Submission of supportive documents for registration

Transmittal Date: January 26, 2016

Listed of Submitted Studies:

Volume No.	Guideline Requirement	Study Title
1	830.1150, 830.1600, 830.1620, 830.1670, 830.1750, 830.1800,	Product Identity and Composition, Description of the Materials used, Description of the Production Process, Discussion of the Formation of Impurities, Certified Limits, and Enforcement of Analytical method for Glufosinate Technical
2	830.1700, 830.1800	*Preliminary Analysis of Glufosinate-ammonium TGAI*
3	830.1700, 830.1800	*Qualitative and Quantitative Profile of the Test Substance Glufosinate ammonium 95% Technical (Five Batch Analysis)*
4	830.6302, 830.6303, 830.6304, 830.6313, 830.6314, 830.7000, 830.7050, 830.7200, 830.7300, 830.7370, 830.7550, 830.7840,	*Chemical and Physical Characterization of Glufosinate-ammonium TGAI: Color, Physical State, Odor, Density, pH, Melting Point, UV-Vis, Partition Coefficient, Solubility, Vapor Pressure, Stability, Corrosion, Characteristics, Dissociation Constant, Explodability and Oxidation/Reduction*

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the completed form to this address.

Certification with Respect to Citation of Data

Applicant's/Registrant's Name, Address, and Telephone Number GenMerica NA, LLC,1660 3rd Ave SW, LeMars, Iowa 51031; 712-540-6290	**EPA Registration Number/File Symbol** 91640-xx
Active Ingredient(s) and/or Representative Test Compound(s) Glufosinate-ammonium	**Date** 2016-01-26
General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 158) terrestrial food, terrestrial feed	**Product Name** Glufosinate-Ammonium Technical

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

☐ I am responding to a Data-Call-In Notice, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

SECTION I: METHOD OF DATA SUPPORT (check one method only)

☐ I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose	☒ I am using the selective method of support (or cite-all option under the selective method), and have included with this form a completed list of data requirements (the Data Matrix form must be used)

SECTION II: GENERAL OFFER TO PAY

(Required if using the cite-all method or when using the cite-all option under the selective method to satisfy one or more data requirements.)

☒ 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.

SECTION III: CERTIFICATION

I certify that this application for registration, this form for reregistration, or this Data-Call-In response is supported by all data submitted or cited in the application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section I, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses.

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

I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter; (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (I) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (II) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study.

I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of my product in conformity with FIFRA.

I certify that the statements I have made on this form and all attachments to it 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.

Signature	Date	Typed or Printed Name and Title
[illegible]	2016-01-26	Glenda Haage, Regulatory Agent

EPA Form 8570-34 (9-97) Electronic and Paper versions available. Submit only Paper version.

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

Date 2016-01-26	EPA Reg. No./File Symbol 91640-xx	Page 1 of 2
Applicant's/Registrant's Name & Address enMerica NA LLC % GHB Consulting, 1660 3rd Ave SW, LeMars, IA 51031	Product Glufosinate-Ammonium Technical	
Ingredient glufosinate-ammonium		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
[redacted]					
			GenMerica NA LLC	OWN	
			GenMerica NA LLC	OWN	
			Bayer	PAY	
			Bayer	PAY	
			Bayer	PAY	
			Bayer	PAY	
			Bayer	PAY	
			Bayer	PAY	

Signature	Name and Title	Date
	Glenda Haage, Regulatory Agent	2016-01-26

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.

Agency Internal Use Copy

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

Date 2016-01-26	EPA Reg. No./File Symbol 91640-xx	Page 2 of 2
Applicant's/Registrant's Name & Address AgnMerica NA LLC % GHB Consulting, 1660 3rd Ave SW, LeMars, IA 51031	Product Glufosinate-Ammonium Technical	
Ingredient glufosinate-ammonium		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
[redacted]					
			See attached for companies receiving compensable letter(s).	Pay	

Signature	Name and Title	Date
[signature]	Glenda Haage, Regulatory Agent	2016-01-26

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.

Agency Internal Use Copy

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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

OFFICE OFPESTICIDE PROGRAMS
REGISTRATION DIVISION

15/MAR/2016

SIMILARITY CLINIC MEMORANDUM

Subject:	Name of Pesticide Product:	Glufosinate-Ammonium Technical
	EPA Reg. No. /File Symbol:	91640-A
	DP Barcode:	D431861
	Decision No:	513664
	Action Code:	R334
	PC Code:	128850 (glufosinate-ammonium)

From: Eugenia McAndrew, Biologist Eugenia McAndrew

Through: John C. Redden, M.S., Senior Risk Assessor JCR
Chemistry, Inerts and Toxicology Assessment Branch
Registration Division (7505P)

To: Heather Garvie, Risk Manager Team 24
Fungicide and Herbicide Branch
Registration Division (7505P)

Applicant: GenMerica NA, LLC
1660 3rd Ave SW
LeMars, Iowa 51031

FORMULATION FROM LABEL:

Active Ingredient(s):	% by wt.
Glufosinate-ammonium	98.0
Other ingredients:	2.0
Total:	100.0

ACTION REQUESTED: Similarity determination for 91640-A, proposed product, and 264-646, cited product.

BACKGROUND: GenMerica NA, LLC has applied for registration of Glufosinate-Ammonium Technical, EPA File Symbol 91640-A, claiming to be substantially similar to Glufosinate-Ammonium Technical, EPA Reg. No. 264-646. Both products are technical grade for manufacturing use only. The submission includes a basic CSF and alternate CSF #1 dated January 12, 2016, label, data matrix and company letter.

The registrant is using the cite all method of data support to satisfy the acute toxicity data requirements. A search of the HED Records Center electronic database shows that the Health Effects Division reviewed acute toxicity data submitted for 264-646 in a 1992 memo regarding a tolerance for glufosinate ammonium on bananas (Phang; D172882; EPA ID No. 2E04057; 12/JUN/1992).

RECOMMENDATIONS:

1. We compared the basic CSFs and labels of the proposed product, 91640-A, and the cited product, 264-646, and determined that the two products are substantially similar.

2. The acute toxicity profile for the proposed product, Glufosinate-Ammonium Technical, EPA File Symbol 91640-A, is as follows:

acute oral toxicity	III	cited	EPA Reg. No. 264-646
acute dermal toxicity	III	cited	EPA Reg. No. 264-646
acute inhalation toxicity	III	cited	EPA Reg. No. 264-646
primary eye irritation	III	cited	EPA Reg. No. 264-646
primary skin irritation	IV	cited	EPA Reg. No. 264-646
dermal sensitization	negative	cited	EPA Reg. No. 264-646

3. The proposed basic and alternate CSFs submitted for 91640-A must be reviewed and accepted by the product chemists in the Chemistry, Inerts and Toxicology Assessment Branch.

LABELING: Based on the toxicity profile above, the following are the precautionary and first aid statements for this product as obtained from the Label Review System:

PRODUCT ID #: 091640-00006

PRODUCT NAME: Glufosinate-Ammonium Technical

PRECAUTIONARY STATEMENTS

SIGNAL WORD: CAUTION

Hazards to Humans and Domestic Animals:

Harmful if swallowed, absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

First Aid:

If swallowed:
-Call a poison control center or doctor immediately for treatment advice.
-Have person sip a glass of water if able to swallow.
-Do not induce vomiting unless told to by a poison control center or doctor.
-Do not give anything to an unconscious person.

If on skin:
-Take off contaminated clothing.
-Rinse skin immediately with plenty of water for 15-20 minutes.
-Call a poison control center or doctor for treatment advice.

If inhaled:
-Move the person to fresh air.
-If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
-Call a poison control center or doctor for further treatment advice.

If in eyes:
-Hold eye open and rinse slowly and gently with water for 15-20 minutes.
-Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
-Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.

GLUFOSINATE-AMMONIUM TECHNICAL

Only For Use in the Manufacture of Herbicides

ACTIVE INGREDIENT:

Glufsoinate-ammonium*: ammonium 2-amino-4(hydroxymethylphosphinyl)butanoate).....98.0%

OTHER INGREDIENTS: 2.0%

TOTAL.....100%

KEEP OUT OF REACH OF CHILDREN
CAUTION

First Aid	
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
Note to Physician:	Glufosinate-ammonium is a glutamine synthetase inhibitor and can interfere with neurotransmitter function. Symptoms may be delayed by up to 48 hours following ingestion. There is no specific antidote. If ingested, endotracheal intubation and gastric lavage should be performed as soon as possible followed by charcoal and sodium sulfate administration.
Hot line number:	Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical assistance, call the National Pesticide Information Center at 1-800-222-1222

Manufactured for:
GenMerica NA, LLC
P.O. Box 1603
Cheyenne, WY 82003

EPA Reg. No. 91640-
EPA Est. No.
Net Contents:

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

ENVIROMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System(NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluents containing this product or sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

DIRECTIONS FOR USE

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

This product is intended for formulation into end-use products for the following uses:

- weed control of emerged weeds in noncrop areas;
- control of weeds and grasses in residential and industrial areas;
- bananas, berries (Crop Subgroup 13B), canola, citrus (Crop Group 10-10), corn (field and sweet), cotton, grapes, olives, pome fruit (Crop Group 11-10), rice, soybeans, sugar beets, tree nuts (Crop Group 14) including pistachios, salal, stone fruit (Crop Group 12-12); desiccation of potato vines;
- weed control in glusinate-ammonium tolerant canola, corn, cotton, soybeans and sugar beets;
- for elimination of non-glufosinate-ammonium tolerant corn, soybean, rice and cotton plants in seed production;
- uses for which the U.S. EPA has accepted the required data and/or citations of data that the formulator has submitted in support of registration;
- specific uses not listed on the manufacturing product label if the formulator, user group or grower has complied with U.S. EPA submission requirements regarding support or such uses; and
- uses for experimental purposes that are in compliance with U.S. EPA requirements

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in original container tightly closed and in a safe place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into processing equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. Offer the drum for recycling, if available.

WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER, AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, CROP OR PLANT DAMAGE, OR LOSS OF YIELD, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE WEATHER, WIND, AND TEMPERATURE, OR THE MANNER OF USE OR APPLICATION, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER, AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER OR MANUFACTURER, AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY OTHER REPRESENTATION OR

WARRANTY OR AGREEME RELATING IN ANY WAY TO THESE GC S. NO WARRANTIES SHALL BE CREATED BY COURSE OF DEALING, USAGE OF TRADE, OR COURSE OF PERFORMANCE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE FACE HEREOF. THE SELLER AND MANUFACTURER ASSUME NO RESPONSIBILITY THAT THE GOODS WILL BE FIT FOR ANY PARTICULAR PURPOSE FOR WHICH YOU MAY BE BUYING OR USING THE GOODS.

LIMITATION OF LIABILITY WARNING

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NEITHER MANUFACTURER NOR SELLER SHALL BE LIABLE TO BUYER OR USER OR TO CUSTOMERS OF BUYER, IF ANY, FOR INDEMNIFICATION OR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR RISING OUT OF THE USE, MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR CUSTOMERS. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY, SHALL BE FOR DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE GOODS AND, IF BUYER OR USER WISHES, THE RETURN OF THE GOODS BY BUYER TO SELLER.

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the goods, and return it unopened to the Seller, and the purchase price will be refunded. *By using the goods, you expressly agree to all of the terms and conditions of this contract.*

Prop160120(1)

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

Date 2016-01-26	EPA Reg. No./File Symbol 91640-xx	Page 1 of 2
Applicant's/Registrant's Name & Address enMerica NA LLC % GHB Consulting, 1660 3rd Ave SW, LeMars, IA 51031	Product Glufosinate-Ammonium Technical	

Ingredient glufosinate-ammonium

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
Product Chemistry Group A	Product Identity, Composition, and Analysis Test Guidelines	Volume 1	GenMerica NA LLC	OWN	
Product Chemistry Group B	Physical/Chemical Properties Test Guidelines	Volume 4	GenMerica NA LLC	OWN	
870.1100	Acute Oral Toxicity: Rat	46279002	Bayer	PAY	
870.1200	Acute Dermal Toxicity: Rat	46279003	Bayer	PAY	
870.1300	Acute Inhalation Toxicity: Rat	46279004	Bayer	PAY	
870.2400	Primary Eye Irritation: Rabbit	46279005	Bayer	PAY	
870.2500	Primary Dermal Irritation: Rabbit	46279006	Bayer	PAY	
870.2600	Dermal Sensitization	46279007	Bayer	PAY	

Signature	Name and Title	Date
	Glenda Haage, Regulatory Agent	2016-01-26

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.

Agency Internal Use Copy

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

Date 2016-01-26			EPA Reg. No./File Symbol 91640-xx		Page 2 of 2
Applicant's/Registrant's Name & Address GenMerica NA LLC % GHB Consulting, 1660 3rd Ave SW, LeMars, IA 51031			Product Glufosinate-Ammonium Technical		
Ingredient glufosinate-ammonium					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
Glufosinate-ammonium Generic Data Requirements					
Glufosinate-ammonium Generic Data Requirements	Selective site utilized by GenMerica NA LLC for Glufosinate-ammonium generic data requirements on attached list.	See attached	See attached for companies receiving compensable letter(s).	Pay	
Signature			Name and Title Glenda Haage, Regulatory Agent		Date 2016-01-26

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version. **Agency Internal Use Copy**

Glufosinate Studies - All Submitters

[redacted]

MRID	Title	Sub. Date	Submitter	[redacted]
GDL. No	850.2400 Wild Mammal Toxicity			
49135801	Observation of Voles (Microtus arvalis) Under Semi-Field Conditions after an Application of Glufosinate-Ammonium SL 200 (1.5 kg a.i./ha). Project Number: BAR/FS055, EBGLL010, M/403847/02/1. Unpublished study prepared by Bayer CropScience. 19p.	5/28/2013	BAYER CROPSCIENCE LP	[redacted]
GDL. No	850.2300 Avian Reproduction Quail			
48444809	Bobwhite Quail Dietary Reproduction Study: Glufosinate Ammonium. Project Number: PT03/0091, EBGLX005/NG/38475/, M/222222/01/2. Unpublished study prepared by Aventis Pharma Deutschland Gmbh. 155 p.	4/7/2011	BAYER CROPSCIENCE LP	[redacted]
GDL. No	850.1075 Fish Toxicity Bluegill			
48444806	Disodium Methylphosphinato-Acetate; Substance, Technical (Metabolite of Glufosinate Ammonium) Code: AE F159481 00 1C99 0001: Acute Toxicity to Rainbow Trout (Oncorhynchus mykiss). Project Number: CE96/129, M/143258/01/2, A59587. Unpublished study prepared by Hoechst Schering Agrevo Gmbh. 34 p.	4/7/2011	BAYER CROPSCIENCE LP	[redacted]
GDL. No	850.1085 Fish Toxicity Trout			
48444805	The Effect of Hoe 061517 - Substance, Technical (Identification Code: Hoe 061517 OQ ZC99 0003) to Salmo gairdneri (Rainbow Trout) in a Static-Acute Toxicity Test (Method EPA). Project Number: SG375/D, M/118857/01/2, A37095. Unpublished study prepared by Hoechst AG. 23 p.	4/7/2011	BAYER CROPSCIENCE LP	[redacted]
48444807	Hoe 099730: Effect to Oncorhynchus mykiss (Rainbow Trout) in a 96 Hours Static Acute Toxicity Test. Project Number: CE94/013, M/140141/01/2, A56314. Unpublished study prepared by Hoechst Schering Agrevo Gmbh. 36 p.	4/7/2011	BAYER ENVIRONMENTAL SCIENCE	[redacted]
48444808	Acute Toxicity to Oncorhynchus mykiss (Rainbow Trout): AE F084658; Substance Technical (Dinatrium Salt of AE F130947, Metabolite of Glufosinate-Ammonium AE F039866). Project Number: CE97/154, M/198723/01/2, C010272. Unpublished study prepared by Aventis Crop Science. 29 p.	4/7/2011	BAYER CROPSCIENCE LP	[redacted]
GDL. No	850.1010 Invertebrate Toxicity			
48444801	The Effect of Hoe 061517 - Substance, Technical (Identification Code: Hoe 061517 OQ ZC99 0003) to Daphnia magna (Waterflea) in a Static-Acute Toxicity Test (Method EPA). Project Number: DM651/A, M/118700/01/2, OEK87/132K. Unpublished study prepared by Hoechst AG. 25 p.	4/7/2011	BAYER CROPSCIENCE LP	[redacted]

[redacted]

[redacted]

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
48444802	2-Methylphosphinico-Acetic Acid: Substance, Technical (Hoe 064619 00 ZC98 0001) Effect to Daphnia magna (Waterflea) in a Static-Acute Toxicity Test (Method OECD). Project Number: A50470, CE92/071, M/131487/01/2. Unpublished study prepared by Hoechst AG. 35 p.	4/7/2011	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48444803	Acute Toxicity to Daphnia magna (Waterflea): AE F084658; Substance, Technical (Dinatrium Salt of AE F130947; Metabolite of Glufosinate-Ammonium AE F039866). Project Number: CE97/155, M/198827/01/2, C010331. Unpublished study prepared by Aventis Crop Science. 31 p.	4/7/2011	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48444804	Hoe 099730 - Substance, Technical Code: Hoe 099730 00 ZC92 0001 Effect to Daphnia magna (Waterflea) in a Static-Acute Toxicity Test (Method OECD). Project Number: CE94/014, M/140265/01/2, A56452. Unpublished study prepared by Hoechst Schering Agrevo Gmbh. 35 p.	4/7/2011	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*850.1400*	*Early Life Stage Fish*				
48301104	Effects on Juvenile Growth of Rainbow Trout (Oncorhynchus mykiss) in a 28 Days Flow-Through Study AE C527855; Technical Concentrate; 50 Percent (Disodium Salt of AE F061517 (Metabolite of Glufosinate-Ammonium AE F039866)). Project Number: M/186862/01/2, CE99/018, C003836/OCR. Unpublished study prepared by Hoechst Schering Agrevo Gmbh. 43 p.	12/6/2010	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48301105	The Effect of Glufosinate-Ammonium - Substance, Technical (Identification Code: Hoe 039866 00 ZC99 0001) to Salmo gairdneri (Rainbow Trout) in a 21-Day Prolonged Toxicity Test (Method OECD). Project Number: M/123788/01/2, CE89/030, A60887/OCR. Unpublished study prepared by Hoechst AG. 39 p.	12/6/2010	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48301106	Effects on Juvenile Growth of Oncorhynchus mykiss (Rainbow Trout) in a 28 Days Flow-Through Study Glufosinate-Ammonium Watersoluble Concentrate 150 g/L Code: AE F039866 00 SL14 A117. Project Number: M/202046/01/2, CE00/049, C012078/OCR. Unpublished study prepared by Aventis Crop Science. 54 p.	12/6/2010	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*850.1300*	*Life Cycle Invertebrate*				
48301101	The Effect of Glufosinate-Ammonium - Soluble Concentrate 200 g/L (Identification Code: Hoe 039866 00 SL18 A512) to Daphnia magna (Waterflea) in a Life-Cycle (21-Day Renewal) Chronic Toxicity Test (Method EPA). Project Number: M/123790/01/2, CE89/027, A60888/OCR. Unpublished study prepared by Hoechst AG. 103 p.	12/6/2010	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48301102	Effects on Growth and Reproduction of Daphnia magna AE C527855; Tech. Concentrate; 50 Percent (Disodium Salt of AE F061517 Metabolite of Glufosinate-Ammonium [AE F039866]). Project Number: M/345929/01/2, EBGLX011, E/321/3079/5/OCR. Unpublished study prepared by Bayer CropScience. 85 p.	12/6/2010	BAYER CROPSCIENCE LP	[redacted]	[redacted]	

[redacted]

[redacted]

[redacted]

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
48301103	Effects on Growth and Reproduction of Daphnia magna AE C527855 (Disodium Salt of AE F061517 Metabolite of Glufosinate-Ammonium AE F039866) Technical Concentrate 50%. Project Number: M/187315/02/2, CE99/017, C004090/OCR. Unpublished study prepared by Aventis CropScience. 73 p.	12/6/2010	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*Toxicity*					
46755101	Waiver Request for Measurement of Glutamine Synthetase. Project Number: GS/12/05. Unpublished study prepared by Bayer Cropscience LP. 14 p.	2/8/2006	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
46755103	Waiver Request for Additional Data to Confirm that Liver and Kidney Changes Observed in the Absence of Histopathological Changes are an Adaptive Response and Not an Adverse Effect: Glufosinate Ammonium. Project Number: LI/KD/16/01/2006. Unpublished study prepared by Bayer Cropscience LP. 23 p.	2/8/2006	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48996204	A12738A: Document M-III, Section 4: Metabolism and Residues Data. Project Number: A12738A/OCR. Unpublished study prepared by Syngenta Crop Protection, LLC. 28p.	3/7/2013	SYNGENTA CROP PROTECTION, LLC	[redacted]	[redacted]	
49135802	Food Acceptance Study with Rabbits (Oryctolagus cuniculus) and Grass Treated with Glufosinate-Ammonium SL 200. Project Number: EBGLL010, M/410867/01/1. Unpublished study prepared by Bayer CropScience. 22p.	5/28/2013	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*870.6100 Acute Neurotoxicity, Rat*					
46755102	Glufosinate-Ammonium: Waiver Request for Additional Data Regarding the Acute Neurotoxicity Study. Project Number: HC122005. Unpublished study prepared by Bayer Cropscience LP. 9 p.	2/8/2006	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*870.3050 28-Day Oral Toxicity Study in Rodents*					
47058101	Glufosinate Toxicity Study by Inhalation Administration to CD Rats for 4 Weeks. Project Number: BAG/0408, BAG 0408/063551. Unpublished study prepared by Huntingdon Life Sciences Ltd. 180 p. Relates to L0001111.	2/20/2007	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48738901	Hoe 061517 - Active Ingrdient Technical Testing for Subacute Oral Toxicity - Dose Range Finding - (28-Day Feeding Study) in SPF Wistar Rats. Project Number: M/111502/01/2/OCR, 86/0012, A32457. Unpublished study prepared by Hoechst Aktiengesellschaft. 322p.	2/10/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*870.3150 90-Day Feedent Non-Rodent*					
48738902	Hoe 061517 - Active Ingredient Technical: Testing for Toxicity by Repeated Oral Administration to Beagle Dogs for 1 Month (Range-Finding Test). Project Number: M/120095/01/2/OCR, 88/0497, A38458. Unpublished study prepared by Hoechst Aktiengesellschaft. 305p.	2/10/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
GDL. No	870.3465 90-Day Inhalation					
46755104	Glufosinate Ammonium: Waiver Request for the 28-Day Inhalation Study. Project Number: CLMS/0206. Unpublished study prepared by Bayer CropScience LP. 23 p.	2/8/2006	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	870.6300 Developmental Neurotoxicity Study					
46455701	A Dietary Developmental Neurotoxicity Study of Glufosinate-Ammonium in Rats: Final Report. Project Number: WIL/21202, B004853, WIL/21202A. Unpublished study prepared by WIL Research Laboratories, Inc. 2206 p.	1/26/2005	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	
49331201	Glufosinate-Ammonium: Examination on the Refined Analysis of Mean Length of the Ventral Limb of the Dentate Hilus from Postnatal Day 72 Rats in a Developmental Neurotoxicity Study. Project Number: M/496310/01/1, US/DG1403, RAGLN026. Unpublished study prepared by Bayer CropScience LP. 14p.	10/31/2014	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
49331202	A Dietary Developmental Neurotoxicity Study of Glufosinate-Ammonium in Rats: Final Report. Project Number: M/240314/02/1, WIL/21202. Unpublished study prepared by WIL Research. 2270p.	10/31/2014	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	
GDL. No	870.7800 Immunotoxicity					
48491101	Glufosinate-Ammonium (AE F039866): 28-Day Immunotoxicity Study in the Male Rat by Dietary Administration. Project Number: SA/10180, M/406258/01/1, LYNX/PSI/N/TXGLL016. Unpublished study prepared by Bayer CropScience. 193 p.	5/25/2011	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	870.7600 Dermal Penetration					
45922103	Dermal Absorption and Pharmacokinetic Study with (Carbon 14)-HOE 039866 in SL 18 Formulation on Various Organs/Tissues of Male Rats and Excretion Pattern of Radioactivity After Single Dermal Administration of the Test Article: Lab Project Number: 382252: A55012. Unpublished study prepared by RCC Umweltchemie Ag. 145 p.	5/1/2003	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
49135805	Glufosinate Ammonium (SL 150) Comparative in vitro Dermal Absorption Study Using Human and Rat Skin. Project Number: BAG0427, M/351927/01/1. Unpublished study prepared by Huntingdon Life Sciences, Ltd. 67p.	5/28/2013	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
49135806	Dermal Absorption and Pharmacokinetic Study with (Carbon 14)-HOE 039866 in SL 14 Formulation on Various Organs/Tissues of Male Rats and Excretion Pattern of Radioactivity after Single Dermal Administration of the Test Article. Project Number: A55013, 379877, M/139002/01/2. Unpublished study prepared by RCC Umweltchemie Ag. 152p.	5/28/2013	BAYER CROPSCIENCE LP	[redacted]	[redacted]	

[redacted]

[redacted]

[redacted]

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
49135807	Glufosinate Ammonium (SL 200): Comparative in vitro Dermal Absorption Study Using Human and Rat Skin. Project Number: BAG0428, M/351937/01/1. Unpublished study prepared by Huntingdon Life Sciences, Ltd. 67p.	5/28/2013	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	
GDL. No	*850.4100*	*Seed Germination and Seedling Emergence (Tier 1)*				
47542611	Non Target Plant Field Study: Effects of Glufosinate-ammonium on off Crop Vegetation Code: AE F039866 00 SL18 G2. Project Number: CO45860. Unplublished study prepared by Institute of Environmental Sciences Leiden University. 177 p.	9/17/2008	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48915004	Soybean (Glycine max) Response to Simulated Drift from Selected Sulfonylurea Herbicides, Dicamba, Glyphosate, and Glufosinate. Weed Technology 13: 264-270.	8/23/2012	U.S. Environmental Protection Agency	[redacted]	[redacted]	
48915012	Pea (Pisum sativum) Seed Production as an Assay for Reproductive Effects due to Herbicides. Environmental Toxicology and Chemistry 28(9): 1920-1929.	8/23/2012	U.S. Environmental Protection Agency	$[redacted]	[redacted]	
49135803	Non-Target Terrestrial Plants: Time Course of Phytotoxicity following a Single Application under Greenhouse Conditions: Final Report. Project Number: VV/03/046, C038840, EBGLX009. Unpublished study prepared by Bayer CropScience GmbH. 44p.	5/28/2013	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*850.4400*	*Aquatic Plant Growth (Tier 1)*				
47542603	Algal Growth Inhibition - Navicula pelliculosa: Glufosinate-ammonium substance, technical. Project Number: CE99/111. Unpublished study prepared by Aventis Crop Science. 42 p.	9/17/2008	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
47542604	Effect to Scenedesmus subspicatus (Green alga) in a Growth Inhibition Test (method OECD): Glufosinate-ammonium; Substance, technical (Hoe 039866 00 ZD96 0001). Project Number: CE93/064. Unpublished study prepared by Hoechst Schering Agrevo Gmbh. 44 p.	9/17/2008	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
47542605	Duckweed (Lemna gibba G3) Growth Inhibition Test Glufosinate-ammonium; Watersoluble concentrate; 200 g/L. Project Number: CE00/035. Unpublished study prepared by Aventis Crop Science. 41 p.	9/17/2008	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
47954504	Toxicity of 40 Herbicides to the Green Alga Chlorella vulgaris. Exotoxicology and Environmental Safety 51:128-132.	1/14/2010	U.S. Environmental Protection Agency	[redacted]	[redacted]	
48444810	The Effect of Hoe 061517 - Substance, Technical (Identification Code: Hoe 061517 OQ ZC99 0005) to Scenedesmus subspicatus CHODAT (Green Alga) in a Growth Inhibition Test (Method OECD). Project Number: SS66, M/120498/01/2, A38892. Unpublished study prepared by Hoechst AG. 26 p.	4/7/2011	BAYER CROPSCIENCE LP	[redacted]	[redacted]	

[redacted]

[redacted]

[redacted]

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
48444811	2-Methylphosphinico-Acetic Acid: Effect to Scenedesmus subspicatus (Green Alga) in a Growth Inhibition Test (Method OECD). Project Number: M/138848/01/2, CE92/072, A49823. Unpublished study prepared by Hoechst AG. 44 p.	4/7/2011	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	
48444812	AE F084658 (Dinatrium Salt of AE F130947; Metabolite of Glufosinate-Ammonium AE F039866): Algal Growth Inhibition - Pseudokirchneriella subcapitata. Project Number: C010219, CE97/153, M/198620/01/2. Unpublished study prepared by Aventis Crop Science. 37 p.	4/7/2011	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48444813	Hoe 099730: Effect to Scenedesmus subspicatus (Green Alga) in a Growth Inhibition Test (Method OECD). Project Number: CE94/015, M/140266/01/2, A56453. Unpublished study prepared by Hoechst Schering Agrevo Gmbh. 47 p.	4/7/2011	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	
48444814	AE C527855, Technical Concentrate (Metabolite of Glufosinate-Ammonium AE F039866): Duckweed (Lemna gibba G3) Growth Inhibition Test. Project Number: M/186947/01/2, CE99/019, C003882. Unpublished study prepared by Aventis Crop Science GmbH. 41 p.	4/7/2011	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	
48444815	AE F159481 (Metabolite of AE F039866): Duckweed (Lemna gibba G3) Growth Inhibition Test. Project Number: CE99/046, M/192679/01/2, C005805. Unpublished study prepared by Aventis Crop Science. 40 p.	4/7/2011	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	
48444816	Toxicity of Glufosinate-Ammonium to the Blue Green Algae Anabaena flos-aquae. Project Number: EBGLP004. Unpublished study prepared by Bayer CropScience. 57 p.	4/7/2011	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48444817	Toxicity of Glufosinate-Ammonium to the Saltwater Diatom Skeletonema costatum. Project Number: EBGLP005. Unpublished study prepared by Bayer CropScience. 57 p.	4/7/2011	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*850.4225*	*Seed Germination and Seedling Emergence (Tier 2)*				
48531301	Ignite 280: Effects on the Seedling Emergence and Growth of Ten Species of Non-Target Terrestrial Plants (Tier 2). Project Number: SE11/033, EBGLP003, M/408680/01/1. Unpublished study prepared by Bayer CropScience GmbH. 323 p.	7/8/2011	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	
48718501	Ignite 280: Effects on the Seedling Emergence and Growth of Lettuce (Tier 2). Project Number: SE11/032, EBGLP003, M/420106/01/2. Unpublished study prepared by Bayer CropScience GmbH. 78p.	1/17/2012	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	
GDL. No	*850.4250*	*Vegetative Vigor (Tier 2)*				
47542602	Effect on Vegetative Vigor of Non-Target Terrestrial Plants (Tier II) Glufosinate-Ammonium: WaterSoluble Concentrate (13.9 percent w/w). Project Number: 01BK25801. Unpublished study prepared by Aventis CropScience. 95 p.	9/17/2008	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	

[redacted]

[redacted]

[redacted]

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
GDL. No	*875.2100* *Foliar Residue Dissipation*					
49135808	Foliar Dissipation Half-Life Calculation for Glufosinate-Ammonium in Corn, Canola, Sugar Beet and Pasture Grass. Project Number: US0173, M/408154/01/1. Unpublished study prepared by Bayer CropScience. 31p.	5/28/2013	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*850.3030* *Honey Bee - Toxicity of Residues on Foliage*					
49135804	Determination of Residues of Glufosinate - Ammonium SL 200 g/L in Poecilus cupreus L. (Coleoptera, Carabidae) in an Extended Laboratory Test. Project Number: CW10/047, EBGLL015, M/404036/01/1. Unpublished study prepared by Bayer CropScience GmbH. 76p.	5/28/2013	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*835.4200* *Anaerobic Soil Metabolism*					
46258601	Degradation and Metabolism of Glufosinate Ammonium in Soil Under Anaerobic Conditions. Project Number: M1261285/5, MEF/367/03, C038925. Unpublished study prepared by Bayer Ag, Institute of Product Info. 62 p.	4/28/2004	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	
GDL. No	*835.6100* *Field Dissipation*					
47542601	Soil Dissipation of Glufosinate Applied to Soil in Grapes in the San Joaquin Valley of California. Project Number: 93/0031, 93331, 11/9402. Unpublished study prepared by ABC Laboratories, Inc. and Minnesota Valley Testing Labs. 931 p.	9/17/2008	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	
GDL. No	*Aquatic Field Dissipaton*					
48394102	Bayer CropScience Response to EPA Data Evaluation Record for "Aquatic Field Dissipation of Glufosinate-Ammonium following Application of LIBERTY at Highest Recommended Label Rates for Rice in Louisiana and California - USA, 1997". Project Number: US0147, M/401125/01/1. Unpublished study prepared by Bayer CropScience LP. 99 p.	2/15/2011	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*860.1850* *Confined Rotational Crop*					
47132101	Metabolism of [3,4-Butanoic Acid- Carbon 14] Glufosinate-Ammonium in confined rotational crops. Project Number: M1301440/3, MEF/05/508, 91/414/EEC. Unpublished study prepared by Bayer Ag, Institute of Product Info. & Residue Anal. 136 p.	5/17/2007	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*860.1900* *Field Rotational Crop*					
46573701	Liberty 1.67 SL - Magnitude of the Residue in Field Rotational Crops - Wheat, Mustard Greens, and Turnips (Addendum 1 -Corrections to Original Report). Project Number: RAGLX002/01H, RAGLX002/02H, RAGLX002/03H. Unpublished study prepared by Bayer Corp., Enviro-Test Laboratories and Aventis CropScience. 296 p.	6/13/2005	BAYER CROPSCIENCE LP	[redacted]	[redacted]	

[redacted]

[redacted]

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
GDL. No	860.1340 Residue Analytical Method, Plants					
47542606	Analytical Method and its Validation for the Determination of AE F039866 and its Metabolites AE F061517 and AE F064619 in Soil and Water. Project Number: CR97/029, DGM/F09/97/0. Unpublished study prepared by Hoechst Schering Agrevo Gmbh. 47 p.	9/17/2008	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
47542607	Validation of the Analytical Method DGM F09/97-0 for the Determination of AE F039866 and its Metabolites AE F061517 and AE F064619 in Surface Water. Project Number: CR99/031, DGM/F09/97/0. Unpublished study prepared by Aventis CropScience. 39 p.	9/17/2008	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
47628203	Glufosinate-Ammonium: Laboratory Method Validation on Sweet Corn: Amended Report. Project Number: A6515, 06515/CC/DEL02. Unpublished study prepared by Interregional Research Project No. 4 and Del Monte Research Center 98 p.	8/11/2009	INTERREGIONAL RESEARCH PROJECT NO. 4	[redacted]	[redacted]	
48201501	An Analytical Method for the Determination of Residues of Glufosinate in Crop Matrices Using LC/MS/MS. Project Number: GL/001/P07/01. Unpublished study prepared by Bayer CropScience. 9 p.	8/23/2010	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48799901	Glufosinate-ammonium - Validation and ILV of Soil and Water Methods. Project Number: GL/003/S11/01. Unpublished study prepared by Bayer CropScience. 40p.	4/13/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
49055301	Independent Laboratory Validation of Bayer Method GL-003-S11-01 "An Analytical Method for the Determination of Residues of Glufosinate Ammonium, N-acetylglufosinate, Glufosinate-MPP and Glufosinate-MPA in Soil, Sediment and Water Using LC/MS/MS." Project Number: RAGLP073, AU/2011/37, M/445536/01/1. Unpublished study prepared by JRF America. 119p.	2/8/2013	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
49385601	An Analytical Method for the Determination of Residues of Glufosinate Ammonium, N-acetylglufosinate, Glufosinate-MPP and Glufosinate-MPA in Soil, Sediment and Water Using LC/MS/MS. Project Number: GL/003/S11/02, M/485305/01/1. Unpublished study prepared by Bayer CropScience, LP. 23p.	5/19/2014	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	860.1380 Storage Stability					
45782201	Frozen Storage Stability of AE F039866 (Glufosinate-Ammonium) and its Metabolites, AE F 099730 and AE F061517 in Tolerant Sugar Beet Processed Fractions (Pulp, Molasses, Refined Sugar): Lab Project Number: XEN01-05: 01BK31216: B003971. Unpublished study prepared by Xenos Laboratories, Inc. 112 p.	10/17/2002	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48201502	Storage Stability of Glufosinate-Ammonium (HOE 039866) and HOE 061517 in or on Frozen Citrus and Kiwi. Project Number: 56/HOE/91063, A46904. Unpublished study prepared by Orius Associates, Inc., En-Cas Analytical Laboratories and Hoechst Aktiengesellschaft. 117 p.	8/23/2010	BAYER CROPSCIENCE LP	[redacted]	[redacted]	

[redacted]

[redacted]

[redacted]

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
GDL. No	860.1500 Magnitude of Residue, Plant					
45922001	Percent Crop Treatment Estimates for Bayer CropScience End Products Containing Glufosinate-Ammonium: Lab Project Number: B004304. Unpublished study prepared by Bayer CropScience. 11 p.	5/1/2003	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
45938101	Percent Crop Treatment Estimates for Bayer CropScience End Products Containing Glufosinate-Ammonium: Lab Project Number: B004304. Unpublished study prepared by Bayer CropScience. 11 p.	5/8/2003	BAYER CROPSCIENCE LP	[redacted]	[redacted]	See 45922001.
GDL. No	860.1500 Magnitude of Residue, Plant - Blueberries					
45580201	Glufosinate-Ammonium: Magnitude of the Residue on Blueberry: Lab Project Number: 05291: 05291. 97-BER03: 05291.97-NJ07. Unpublished study prepared by USDA-ARS. 283 p.	1/8/2002	INTERREGIONAL RESEARCH PROJECT NO. 4	[redacted]	[redacted]	
47035701	Glufosinate: Magnitude of the Residue on Blueberry. Project Number: A5291, A5291/02/BER02, A5291/02/MI06. Unpublished study prepared by IR-4 North Central Analytical Lab, Washington State University and U.S. Dept. of Agriculture. 153 p.	1/23/2007	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	860.1500 Magnitude of Residue, Plant - Canola					
47542609	Residues in Transgenic Oilseed Rape after Treatment with Glufosinate-ammonium Water Soluble Concentrate: Initial Residues and their Dissipation. Project Number: OE01/033, M/201495/01/2. Unpublished study prepared by Aventis CropScience. 19 p.	9/17/2008	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48825702	Glufosinate-Ammonium SL (Liquid Water Soluble Concentrate) 200 g/L: Determination of Residues of Hoe 039866 and its Relevant Metabolites to Establish a Maximum Residue Level following Two Applications of Hoe 039866 00 SL 18 A524 in Tolerant Oilseed Rape (Northern Europe): Final Report. Project Number: ER94ECN553, A/56444. Unpublished study prepared by Hoechst Schering AgrEvo Gmbh. 98p.	5/11/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48825703	Glufosinate-Ammonium Water Soluble Concentrate (SL) 200 g/L: Determination of Residues of Glufosinate-Ammonium (AE F039866) and its Metabolites following Two Applications on Genetically Modified Spring Oilseed Rape Commodities from Residue Trails; European Union, Northern Zone, 1997: Final Report. Project Number: ER/97/ECN/554, A67612, M/147983/01/1. Unpublished study prepared by Hoechst Schering AgrEvo Gmbh. 80p.	5/11/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48825706	Glufosinate - Ammonium SL (Water Soluble Concentrate) 200 and 150 g/L: Determination of Residues to Establish an Maximum Residue Level (MRL) and to Determine the Decline of Glufosinate and its Relevant Metabolites following 2 Applications in Oil Seed Rape, European Union (Northern Zone) 1995/96: Final Report. Project Number: ER/96/ECN/553, A57955, M/141681/01/1. Unpublished study prepared by Hoechst Schering AgrEvo Gmbh. 122p.	5/11/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	

[redacted]

[redacted]

[redacted]

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
48825708	Glufosinate-Ammonium Liquid Water Soluble Concentrate (SL) 20 g/L: Residues of Glufosinate-Ammonium and its Relevant Metabolites in Tolerant Oilseed Rape following Two Applications European Union (Northern Zone, France South), 1996 / 97: Final Report. Project Number: ER/97/ECN/553, A67480, M/147861/01/1. Unpublished study prepared by Hoechst Schering AgrEvo Gmbh. 110p.	5/11/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48976701	Glufosinate-ammonium: Magnitude of Residues in/on Liberty Link Canola Varieties (Ignite 280 SL). Project Number: M/408523/01/1/OCR, RAGLC010. Unpublished study prepared by ALS Environmental. 302p.	1/11/2013	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48976703	Glufosinate-ammonium: Magnitude of Residues in/on Liberty Link Canola Varieties (Ignite 280 SL): Final Report. Project Number: M/443238/01/1, RAGLC010/ADDENDUM/OCR. Unpublished study prepared by ALS Environmental. 74p.	1/11/2013	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*860.1500*	*Magnitude of Residue, Plant - Citrus*				
47915701	Rely 200 - Magnitude of the Residue in/on Citrus (Crop Group 10). Project Number: M/353786/01/1, RAGLP024. Unpublished study prepared by Bayer CropScience. 222 p.	12/1/2009	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*860.1500*	*Magnitude of Residue, Plant - Corn*				
47542610	Residues in Transgenic Maize after Treatment with Glufosinate-ammonium water Soluble Concentrate: Initial Residues and their Dissipation. Project Number: OE01/032, M/201493/01/2. Unpublished study prepared by Aventis CropScience. 22 p.	9/17/2008	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
47828201	Glufosinate: Magnitude of the Residue on Sweet Corn: Amended Report. Project Number: 06515, 06515/97/DEL08, 06515/97/MI23. Unpublished study prepared by Interregional Research Project No. 4, Del Monte Research Center and Michigan State University. 475 p.	8/11/2009	INTERREGIONAL RESEARCH PROJECT NO. 4	[redacted]	[redacted]	
47828202	Glufosinate: Magnitude of the Residue on Corn (Sweet): Amended Report. Project Number: 06953, 06953/99/DEL03, 06953/99/NY12. Unpublished study prepared by Interregional Research Project No. 4, Del Monte Research Center and Cornell University. 454 p.	8/10/2009	BAYER CROPSCIENCE LP	[redacted]	[redacted]	Also submitted by IR-4.
48825704	Decline of Residues in Genetically Modified Maize: France (EU Northern and Southern Zone), 1997: Glufosinate-Ammonium, AE F039866 Water Soluble Concentrate (SL) 200 g/L. Project Number: ER/97/ECN/550, C001718, M/183224/01/1. Unpublished study prepared by Hoechst Schering AgrEvo Gmbh. 114p.	5/11/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48825705	Decline of Residues in Genetically Modified Maize to Compare Different Transformation Events for Data Bridging. European Union [France], 1998 Glufosinate-Ammonium, AE F039866 Water Soluble Concentrate (SL) 200 g/L. Project Number: ER/98/ECN/550, C002266, M/184191/01/1. Unpublished study prepared by Hoechst Schering AgrEvo Gmbh. 97p.	5/11/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
48825711	Glufosinate-Ammonium SL (Water Soluble Concentrate) 200 g/L: Determination of Residues to Establish an Maximum Residue Level (MRL) and to Determine the Decline of Glufosinate and its Relevant Metabolites following 2 Applications in Tolerant Maize. Project Number: ER/96/ECN/55, A58191, M/141900/01/1. Unpublished study prepared by Hoechst Schering AgrEvo Gmbh. 178p.	5/11/2012	BAYER CROPSCIENCE LP	$[redacted]	[redacted]	
48825712	Glufosinate-Ammonium SL (Water Soluble Concentrate) 200 and 120 g/L: Determination of Residues to Establish an Maximum Residue Level (MRL) and to Determine the Decline of Glufosinate and its Relevant Metabolites following 2 Applications in Tolerant Maize. Project Number: ER/96/ECS/550, A58190, M/141899/01/1. Unpublished study prepared by Hoechst Schering AgrEvo Gmbh. 140p.	5/11/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*860.1500*	*Magnitude of Residue, Plant - Olives*				
47915704	Rely 200 - Magnitude of the Residue in/on Olive. Project Number: M/353666/01/1, RAGLP028, GL/001/P07/01. Unpublished study prepared by Bayer CropScience. 82 p.	12/1/2009	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*860.1500*	*Magnitude of Residue, Plant - Peaches*				
47915705	Glufosinate: Magnitude of the Residue on Peach. Project Number: M/358312/01/1, 08720, 08720/07/BER07. Unpublished study prepared by Interregional Research Project No. 4, and ACSL, ARS, USDA, PSI and University of California Kearney Agricultural Center. 253 p.	12/1/2009	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*860.1500*	*Magnitude of Residue, Plant - Pears*				
47915702	RELY 200 SL - Magnitude of the Residue in/on Pear. Project Number: M/352430/01/1, RAGLP027, GL038/08HA. Unpublished study prepared by Bayer CropScience. 104 p.	12/1/2009	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*860.1500*	*Magnitude of Residue, Plant - Soybeans*				
48205501	Ignite 280 SL - Magnitude of the Residue in/on Soybean. Project Number: M/388245/01/1, RAGLP034. Unpublished study prepared by Bayer CropScience. 235 p.	9/2/2010	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*860.1500*	*Magnitude of Residue, Plant - Stone Fruits*				
47915703	Rely 200 - Magnitude of the Residue in/on Stone Fruit. Project Number: M/353099/01/1, RAGLP026, GL026/08HA. Unpublished study prepared by Bayer CropScience. 162 p.	12/1/2009	BAYER CROPSCIENCE LP	[redacted]	[redacted]	

[redacted]

[redacted]

[redacted]

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
GDL. No	860.1500 Magnitude of Residue, Plant - Sugar beet					
47542608	Residues in Transgenic Sugar Beet after Treatment with Glufosinate-ammonium Water Soluble Concentrate: Initial Residues and their Dissipation. Project Number: OE01/034, M/201497/01/2. Unpublished study prepared by Aventis CropScience. 21 p.	9/17/2008	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48825701	Decline of Residues of Glufosinate - Tolerant Sugar Beet European Union (Northern Zone) 1997. Project Number: ER97ECN551, C002616, M/184792/01/1. Unpublished study prepared by Hoechst Schering AgrEvo Gmbh. 87p.	5/11/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48825707	Decline of Residues in Glufosinate - Tolerant Sugar Beet France, (European Union, Northern Zone) 1998 Comparison of Transformation Events T120-7 and TrE-18: Glufosinate-Ammonium, AE F039866 Water Soluble Concentrate (SL) 200 g/L. Project Number: ER/98/ECN/552, C004977, M/188917/01/1. Unpublished study prepared by Hoechst Schering AgrEvo Gmbh. 105p.	5/11/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48825709	Glufosinate-Ammonium Liquid Water Soluble Concentrate (SL) 200 g/L: Determination of Residues of Hoe 039866 and its Relevant Metabolites to Establish a Maximum Residue Level following Two Applications of Hoe 039866 00 SL18 A523 in Tolerant Sugar Beets. Project Number: ER/96/ECN/551, A57574, M/141279/01/1. Unpublished study prepared by Hoechst Schering AgrEvo Gmbh. 66p.	5/11/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48825710	Glufosinate-Ammonium Water Soluble Concentrate 200 g/L: Determination of Residues of Hoe 039866 and its Relevant Metabolites to Establish a Maximum Residue Level following Two Applications of Hoe 039866 00 SL18 A523 in Tolerant Sugar Beets: Final Report. Project Number: ER95ECN555, A/56446, M/140259/01/1. Unpublished study prepared by Hoechst Schering AgrEvo Gmbh. 66p.	5/11/2012	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	860.1500 Magnitude of Residue, Plant - Wheat					
45644901	At Harvest Glufosinate-Ammonium Derived Residues in Rotated Wheat Planted After Treatment of a Potato Crop with RELY Herbicide at the Maximum Proposed Rate and Minimum Proposed Rotational Interval, USA, 2000: Final Report: Lab Project Number: 00BK27920: B003783. Unpublished study prepared by Aventis CropScience. 118 p. {OPPTS 860.1500}	4/1/2002	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
45839901	Glufosinate-Ammonium Residues in Winter Wheat Grown in Glufosinate-Ammonium Treated Soil--Addendum 1: Lab Project Number: BK95R009: BK95R009-A1: B004198. Unpublished study prepared by Bayer CropScience. 11 p. {OPPTS 860.1850}	1/16/2003	BAYER CROPSCIENCE LP	[redacted]	[redacted]	

[redacted]

[redacted]

[redacted]

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
GDL. No	*860.1520 Magnitude of Residue, Processed Fractions - Canola*					
48976702	Glufosinate-ammonium: Magnitude of Residues in/on Processed Fractions of Liberty Link Canola Varieties (Ignite 280 SL): Final Report. Project Number: M/408527/01/1/OCR, RAGLC011. Unpublished study prepared by GLP Technologies, ALS Environmental. 289p.	1/11/2013	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*860.1520 Magnitude of Residue, Processed Fractions - Olives*					
47915708	Rely 200 - Magnitude of the Residue in/on Olive Processed Commodities. Project Number: M/352092/01/1, RAGLP029, GLP/001/P07/01. Unpublished study prepared by Bayer CropScience and GLP Technologies. 96 p.	12/1/2009	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*860.1520 Magnitude of Residue, Processed Fractions - Oranges*					
47915706	Rely 200 - Magnitude of the Residue in/on Orange Processed Commodities. Project Number: M/353259/01/1, RAGLP023, GL/001/P07/01. Unpublished study prepared by Bayer CropScience and University of Idaho, Cooperative Extension. 100 p.	12/1/2009	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*860.1520 Magnitude of Residue, Processed Fractions - Plums*					
47915707	Rely 200 - Magnitude of the Residue in/on Plum Processed Commodities. Project Number: M/351071/01/1, RAGLP025, GLP/001/P07/01. Unpublished study prepared by Bayer CropScience and GLP Technologies. 108 p.	12/1/2009	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*840.1100 Droplet Size Spectrum*					
47381901	Evaluation of Potential Drift Effects of Ignite Herbicide. Project Number: M/299008/01/1. Unpublished study prepared by Bayer CropScience LP. 6 p.	3/25/2008	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	*Risk Assessments*					
45600501	Reduced-Risk Pesticide Rationale for Glufosinate-Ammonium: Lab Project Number: B003066. Unpublished Study prepared by Aventis CropScience. 222 p.	2/11/2002	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
45922101	Revised Risk Assessments for Glufosinate-Ammonium Uses: Aggregate Dietary Exposure and Residential Spot Treatment: Lab Project Number: B004311. Unpublished study prepared by Bayer CropScience LP. 22 p.	5/1/2003	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
45922102	Drinking Water (Surface Water) Exposure Assessment for Glufosinate-Ammonium Based on EPA-EFED Selected Environmental Fate Characteristics: Lab Project Number: 200600. Unpublished study prepared by Bayer CropScience. 15 p.	5/1/2003	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
45923801	Bayer CropScience Revised Short-Term Aggregate Risk Assessment for Glufosinate-Ammonium Uses: Lab Project Number: B004324. Unpublished study prepared by Bayer CropScience LP. 9 p.	5/5/2003	BAYER CROPSCIENCE LP	[redacted]	[redacted]	

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
46573702	Tier 3 Acute and Chronic Dietary Exposure Assessments for Glufosate-Ammonium. Project Number: B004368. Unpublished study prepared by Bayer CropScience LP. 121 p.	6/13/2005	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
47542612	Tier 3 Acute and Chronic Dietary Exposure Assessments for Glufosinate-Ammonium. Project Number: G201891. Unpublished study prepared by Bayer Cropscience LP. 131 p.	9/17/2008	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
48394101	Drinking Water Exposure Assessment for Glufosinate Uses on Rice. Project Number: US0144, M/400595/01/1. Unpublished study prepared by Bayer CropScience LP. 29 p.	2/15/2011	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
49135809	Bayer CropScience Comments to EPA's Draft Human Health and Ecological Risk Assessments for the Registration Review of Glufosinate Ammonium. Project Number: US0346, M/453821/01/1. Unpublished study prepared by Bayer CropScience LP. 29p.	5/28/2013	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
49331203	Refinement of the Glufosinate Ammonium Post Application Exposure and Risk Assessment. Project Number: M/484020/02/1, US420/1. Unpublished study prepared by Bayer CropScience LP. 21p.	10/31/2014	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
49385602	Refinement of the Glufosinate Ammonium Post Application Exposure and Risk Assessment. Project Number: US420, M/484020/01/1. Unpublished study prepared by Bayer Cropscience, LP. 19p.	5/19/2014	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
49385604	Bayer"s Proposal for Label Language for the Finale, Derringer, and Derringer F Vegetation Management Labeled Uses of Glufosinate in Turfgrass, Ornamentals, and Non-Crop Areas. Unpublished study prepared by Bayer CropScience, LP. 24p.	5/19/2014	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
49525501	A Public Interest Document Supporting the Reregistration of Glufosinate for Reliable Non-Selective Weed Control and Management of Resistant Weeds in Tree, Vine and Berry Crops; Glufosinate-Tolerant LibertyLink Canola, Corn, Cotton and Soybeans; and Burndown Applications. Project Number: US0455. Unpublished study prepared by James E. Nelson. 119p.	12/10/2014	BAYER CROPSCIENCE LP	[redacted]	[redacted]	
GDL. No	Worker Exposure					
49385603	Amendment of Handler Personal Protective Clothing Requirements for Glufosinate Ammonium Based on Revised Human Health Risk Assessment. Project Number: US421, M/484023/01/1. Unpublished study prepared by Bayer CropScience, LP. 9p.	5/19/2014	BAYER CROPSCIENCE LP	[redacted]	[redacted]	

[redacted]

[redacted]

[redacted]

MRID	Title	Sub. Date	Submitter	All Uses Best Case	All Uses Worst Case	Notes
				[redacted]	[redacted]	

[redacted]

The test costs presented here are estimated costs based on limited, publicly available information, and are provided at the request of legal counsel for the purpose of aiding GHB's client in future litigation and advising GHB's clients as to legal liability. These estimates generally represent current replacement costs and may not reflect either the actual or claimed costs of the studies.

Pages 110-113 *CSF May be Entitled to Confidential Appendix*