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

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUMMARY OF THE IBT REVIEW PROGRAM

OFFICE OF PESTICIDE PROGRAMS

JULY 1983

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

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

The IBT Review Program

This report summarizes the findings of the joint program conducted by the Environmental Protection Agency (EPA) and the Health Protection Branch of Health and Welfare Canada to reexamine the validity of health effects studies on pesticides tested by Industrial Bio-Test Laboratories, Inc. (IBT). This program is one result of discoveries made during a series of audits beginning in 1976 by the Food and Drug Administration (FDA) and EPA which revealed serious deficiencies in IBT tests conducted to support the registration of numerous pesticides and some drugs in both the United States and Canada. This report assesses the impact of the IBT situation on the registration status of the chemicals involved and describes the steps the Agency has taken to resolve this problem and to prevent its recurrence.

Exhibit A shows how many IBT and non-IBT tests are available to EPA in each testing category for the pesticide chemicals having some IBT conducted studies in their data base. As these tables show, a large majority (93%) of the pesticides tested by IBT, also have non-IBT data available. Only 12 of the pesticides listed have a data base entirely of IBT studies. However, seven of these are either not registered for use in this country or are cancelled or discontinued products. Some of the IBT studies on the remaining five chemicals are at least partially valid or "supplemental", meaning the data can be used to support the findings of other studies.

These tables also indicate the pesticides for which new data have been required as a result of EPA regulatory actions. These include risk/benefit reviews undertaken because of specific evidence of a hazard (known as Rebuttable Presumption Against Registration, listed as "RPAR" in tables) or EPA's regular program for reregistering all previously registered pesticides (in tables, "Registration Standard" and "Data Call-In"). The reregistration program is not specifically connected to the IBT case, but serves the purpose of bringing the data on older chemicals, including some tested by IBT, up to current scientific standards. Under the authority of section 3(c)(2)(B) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) the Agency can require additional data to maintain a registration, and may suspend a product's registration if the registrant does not agree to provide the data or if it is not provided pursuant to an agreement with the Agency.

Attached is also a list (Exhibit B) of major health effects studies on pesticides conducted by IBT identifying which have been found valid or invalid, and which have been or are in the process of being replaced. This list covers 801 studies on 140 pesticides. An earlier draft list of IBT tests prepared by EPA in May 1983 identified 1205 tests on 212 pesticides. The current list has eliminated duplicative entries, preliminary range finding and similar tests which were not true health effects studies, and short-term, acute toxicity tests which generally do not create a significant data gap and which will be replaced if needed, through the existing reregistration program described above. Thus, the current list of 801 studies covers health effects considered significant to regulatory decisions, such as induction of benign or malignant tumors (oncogenicity), birth defects (teratogenicity), genetic mutations, other adverse reproductive effects, and neurotoxicity. Of the 801 IBT studies in the pivotal categories, 594 (74%) have been found invalid. To date, of the invalid studies, 212 (36%) studies have been replaced or are in progress, 38 (7%) are under discussion for possible replacement, and 45 (7%) are of a type no longer required for registration.

One way to assess the impact of IBT is to consider the effect of invalid studies on the data base supporting pesticides used in high volume. Although hundreds of pesticides are registered, only 25 insecticides account for 85% of the actual pounds of insecticides used, 32 herbicides account for 82%, and only 8 fungicides account for 71% of the volume of those products used. Of these 65 most heavily used pesticides, only 18 have IBT data in one or

more important categories. Of those 18, all but one also have non-IBT data available in some or all of the same cagetories. The exception, prometon, a herbicide not used on food crops, has one partially valid IBT study and many non-IBT acute and subacute studies. Sixteen of these high volume chemicals are the subject of one of the regulatory procedures described above requiring additional data. Thus, the data bases for the high volume chemicals to which people are most likely to be exposed are for the most part unaffected by the IBT situation, and where there is an impact, EPA has taken active regulatory steps to obtain replacement data.

The principal remaining task of the IBT program is to clarify the status of the invalid studies for which registrants have indicated they do not intend to provide replacements, or have not communicated an intention one way or the other to EPA. Although around 300 studies are in this category, a significant number (140) of negative and non-responses involve discontinued or cancelled products, or pesticides of such low volume use that registrants may choose not to invest in further testing needed to maintain registrations. The replacement status column of Exhibit B indicates that there are 159 invalid studies (26% of invalid IBT tests) for which there is negative or no response. However, as previously noted, most of these chemicals have non-IBT data available. Exhibit A shows that only five chemicals still registered and actually used have entirely IBT data bases. The 17 studies involved with those 5 chemicals constitute 3% of invalid IBT studies. A registration standard will result in replacement of 6 of these studies. This leaves only 11 studies or 2% of the invalid IBT tests which constitute the sole support of registered pesticides, and for which no regulatory action to generate replacement data has yet been initiated. Several of these 11 are valid or have at least supplementary value.

This report is being furnished to the registrants of the affected chemicals for which negative or no responses have been received concerning replacement of invalid IBT studies. We are also sending the registrants 3(c)(2)(B) notifications which require a registrant to make a specific commitment within 90 days or the registration may be suspended. In some cases, EPA and a registrant may agree that a specific study does not need to be replaced.

The IBT case caused serious concern and uncertainty about the potential hazards of the hundreds of pesticides involved, both for EPA and the public. Although it was advocated by some that all 212 pesticides tested in whole or in part by IBT be removed from the market pendihg retesting, that option is not available under current law.

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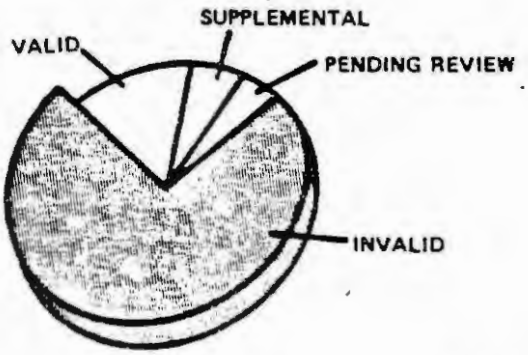
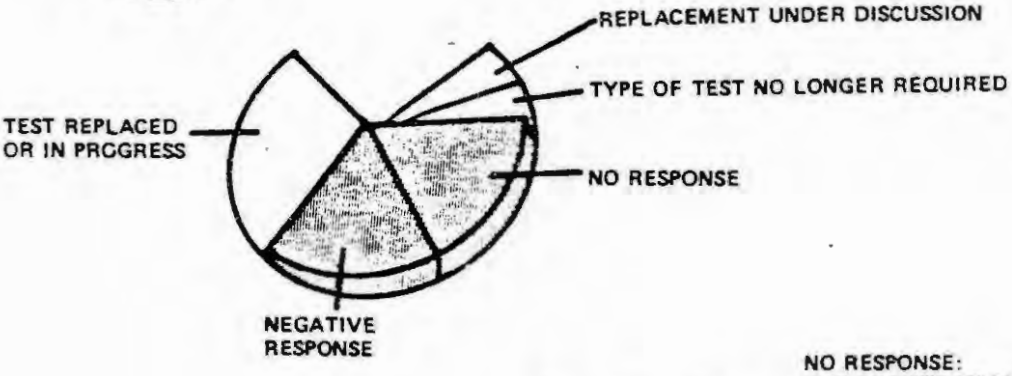
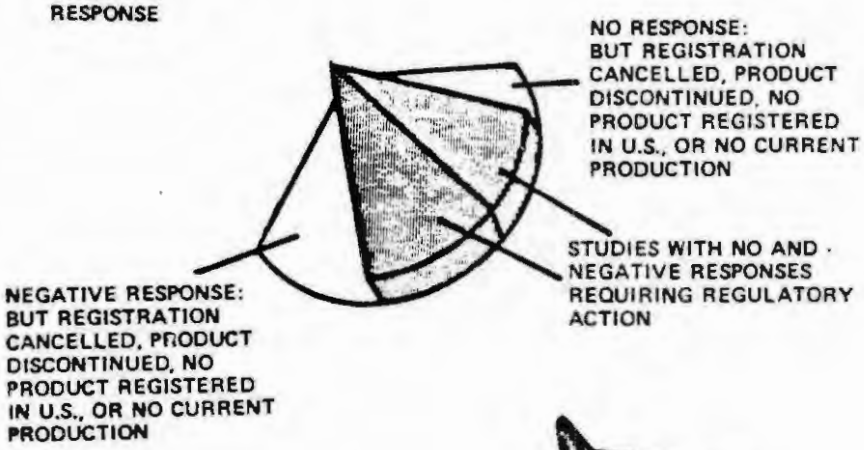
The regulatory response authorized by FIFRA requires valid evidence of risk, as opposed to a lack of information, before removing a product from the market, and allows for the replacement of inadequate data. As we reach the final resolution of the IBT problem, it appears that this approach was appropriate and adequate to deal with this event.

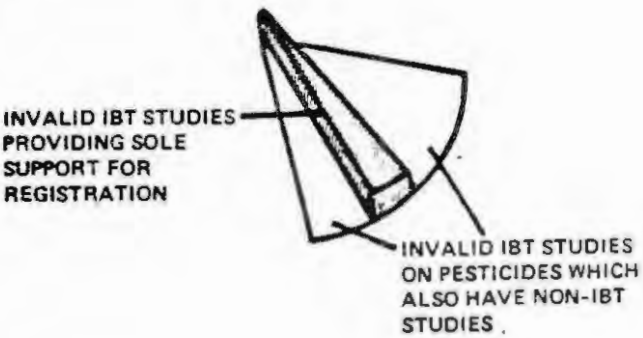
The IBT scandal shook the industry and government regulators. Obviously, steps had to be taken, not just to deal with the IBT situation itself, but to ensure that data providing the foundation of regulatory decisions in the future are adequately prepared and scrutinized. Thus, another result of the IBT case was the establishment in 1977 of a joint EPA-FDA audit program to help ensure that another IBT situation has not occurred and will not in the future. The lab audit program includes visits to laboratories to inspect their procedures, facilities and staff qualifications, and about sixty audits per year of labs and/or individual pesticide studies to see if the reported results are supported by the "raw" laboratory records and data. In the past six years, we have found the large majority of laboratories to be in compliance with current standards, and producing scientifically valid studies. An important effect of the IBT case has been to make the testing community, the industries which use their services, and government regulators keenly aware of the need to maintain high standards of quality control over health effects testing.

EPA ASSESSMENT OF THE 801 MAJOR IBT TESTS









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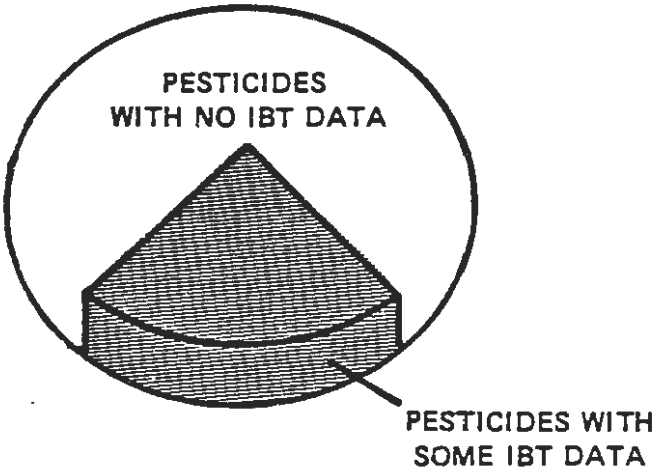
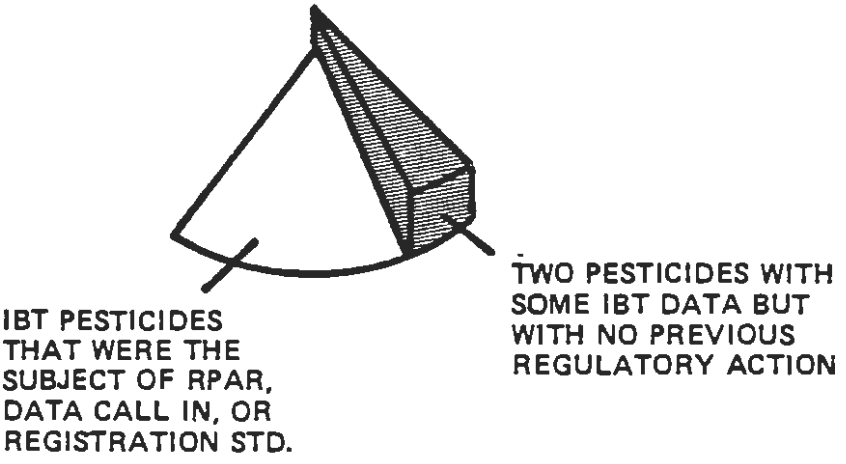
EPA ASSESSMENT OF EFFECT OF IBT DATA ON 65 LARGEST USE PESTICIDES*





*25 INSECTICIDES ACCOUNTING FOR 85% OF POUNDAGE USED, 32 HERBICIDES ACCOUNTING FOR 82% OF POUNDAGE USED, AND 8 FUNGICIDES ACCOUNTING FOR 71% OF POUNDAGE USED, IN 1980.

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SUMMARY STATISTICS: IBT

TOTALS

38 COMPANIES
140 CHEMICALS
801 STUDIES

STUDY VALIDATION STATUS

131	16%	VALID
44	6%	SUPPLEMENTAL
32	4%	PENDING
594	74%	INVALID
801	100%	

INVALID STUDY REPLACEMENT STATUS

212	36%	STUDY REPLACED OR IN PROGRESS
38	6%	REPLACEMENT UNDER DISCUSSION
45	8%	STUDY NO LONGER REQUIRED
116	20%	NEGATIVE RESPONSE BUT PRODUCTS ARE CANCELLED, DISCONTINUED, NOT REGISTERED IN THE U.S., OR HAVE NO PRODUCTION.
24	4%	NO RESPONSE BUT PRODUCTS ARE CANCELLED, DISCONTINUED NOT REGISTERED IN THE U.S., OR HAVE NO PRODUCTION.
86	14%	NEGATIVE RESPONSE AND INVALID
73	12%	NO RESPONSE AND INVALID
594	100%	

IBT STUDIES PROVIDING SOLE SUPPORT FOR REGISTRATION

17	3%	IBT STUDIES PROVIDE SOLE SUPPORT FOR REGISTRATION
−6	1%	CHRONIC STUDIES GENERATED BY REGISTRATION STANDARD
11	2%	

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ADDITIONAL BACKGROUND ON THE IBT REVIEW PROGRAM

In 1976, during a routine lab inspection of one of IBT's facilities, FDA discoverd deficiencies in the manner in which studies were being conducted and discrepancies between those studies and their raw data. In 1977, EPA placed a moratorium on registration actions involving data developed at IBT as a result of this information. In the same year, EPA notified registrants that they were required to audit the raw data and validate both those IBT studies which were pivotal to the data base of pesticides already registered and all those which were supporting new registration actions.

In 1978 a joint EPA/FDA audit of IBT's two other facilities uncovered problems similar to those discovered during the initial audit. In March of that year EPA required registrants to submit to EPA the raw data for the IBT studies so that a review of registrant audits could be conducted.

EPA referred this case to the Department of Justice for investigation in April 1978. At approximately the same time, the U.S. and Canada were negotiating an agreement to share the task of spot checking registrants' audits of IBT studies. Through these checks, however, it became apparent that registrants' audits routinely overlooked some areas of concern. As a result, Canada and the U.S. agreed to review each audit and study.

Mutual agreement was reached as to which studies would be reviewed by each country. It was also decided that each country would accept the other's determination as to validity. However, due to differences in data requirements, each country would independently evaluate whether studies met their regulatory requirements, and determine the need for replacement studies.

After two years experience of the review program a decision was made to reconsider past policies regarding IBT data. A policy statement reflecting decisions made as a result of this analysis was sent to registrants in July 1980. The decisions were: 1) that the moratorium on registration actions was lifted unless a valid IBT study was essential to the approval of a specific action, 2) that registrants would be required to fill data gaps resulting from invalid IBT studies, 3) minor data gaps would be considered through normal registration channels, 4) if the entire data base was invalid, EPA would consider cancellation action, and 5) if previously unreported adverse effects were discovered, the study would have to be replaced, and in addition the Agency would consider initiating either an intensive risk/benefit review, or formal hearings on a chemical's registration status.

The IBT Review Program consisted of validation review, evaluation review, and data gap review. Validation review was designed to determine whether the information in the final report was supported by the raw data. Evaluation of whether a study met Agency guidelines for studies used to support registration, was performed on studies determined to be valid or at least reliable enough to supplement other valid data. Data gap review was a search through a chemical's entire data base to determine which invalid studies needed to be replaced.

Because our experience with data gap review proved it to be extremely time consuming, options for completing the IBT program more expeditiously were considered. As a result, several policy changes were adopted and conveyed to registrants in a letter in April 1982 which stated: 1) that acute IBT studies would no longer be reviewed through the IBT program. Instead, they would be reviewed through normal registration channels; 2) that studies which were considered invalid because the registrant initially chose not to audit them, would not be reviewed by the Agency and our presumption would be that they had to be replaced; 3) that EPA would no longer perform a data gap review of a chemical's data base to determine if other studies existed to replace the IBT studies, instead we would assume that replacement was necessary unless the registrant could convince us otherwise: and 4) that EPA would not review an IBT study if the registrant identified a replacement and agreed to have the IBT study considered invalid.

The review stage of the IBT program is essentially complete. The remainder of the program consists of obtaining replacement studies and tracking commitments to replace studies.

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EXHIBIT A

THE DATA BASE FOR INDUSTRIAL BIO-TEST CHEMICALS

Exhibit A quantitatively presents the data base of the chemical compounds for which studies were conducted by Industrial Bio-Test Laboratories. The IBT studies are designated by the letter O. Studies in the EPA data base done by labs other than IBT are designated by the letter X.

The studies are arrayed across six categories of chronic effects. These chronic effects are: oncogenicity, teratogenicity, mutagenicity, reproductive effects, neurotoxicity, and other chronic effects.

Some of the chemicals in this exhibit appear to have no IBT studies because the studies conducted for these chemicals by IBT were all in the acute categories. The chemical names used are those that were listed in the IBT records. There is no designation of the validity or invalidity of the IBT studies presented. Specific information of this nature is in Exhibit B.

Exhibit A also notes any ongoing regulatory activity that will generate chronic data for these chemicals. The types of regulatory activity that cause the generation of data are: the registration standard program, the data call in program, the rebuttable presumption against registration program, and any special action employing the 3c2b provision of the Federal Insecticide, Fungicide, Rodenticide Act. There are approximately 2830 chronic studies indicated in this data base.

CHEMICAL COMPOUNDS TESTED BY INDUSTRIAL BIO-TEST LABORATORIES:
A QUANTITATIVE PRESENTATION OF STUDIES SUBMITTED TO EPA BY IBT AND OTHER LABORATORIES.

CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Accel		X					
Alanap		X	X	X		XX	
Alar	X	XX O	XX	X		X	Registration Standard
Ametryn			XXX	O		OOO	Data Call In
Asulam	XXX	XX	XXX	X			Data Call In
Atrazine	X	XX	XXXXXXX	XX		XXX OO	Data Call In
Avadex	XXXX	XX O	XXX O	O	O	X OO	Registration Standard
Avenge	XXX	X	X	XX		XXX	Data Call In
Azodrin		X	XXXXXX	XXXX	XXXXXXX	XXX	Data Call In
Bacillus.thurin				X		XXXXX	Data Call In

O = IBT

CHEMICAL COMPOUNDS TESTED BY INDUSTRIAL BIO-TEST LABORATORIES:
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CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Barban			XX			X 000	Data Call In
Bardike		X					
Baygon	XX	XX	XXXXX 0	X	XXXXXXXXX XXXXXX	XXX	
Bifenox		0	0	0		00 000	Registration Standard
Binapacryl			0	0		00000	Not registered in U.S.A.
Bladex		X 00	XX			XXX	Data Call In
Bolero (thiobencarb)	XX	X 00	XXX 00	XXXXXXX 0	X 00	XX 0000	
Brodifacoum (Talon)		X					
Busan 74			XXXXX				
Bux		00	X		X 0	X 0	Data Call In Not registered in U.S.A.

0 = IBT

CHEMICAL COMPOUNDS TESTED BY INDUSTRIAL BIO-TEST LABORATORIES:
A QUANTITATIVE PRESENTATION OF STUDIES SUBMITTED TO EPA BY IBT AND OTHER LABORATORIES.

CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Captan	XXXXX OO	XXXXXXX OOOOOO	XXXXXXXXX OOO	XXX OO		XXX	
Carbaryl	XXXXXXX	XXXX	XXXX	XXXXXX	XXXXXXXXXX XXXXXXXX O	XXXX	RPAR 3c2b
Carbofuran	XXXXX OO	XXXX O	X OO	XXX OOOOO	XXXX OOOOO	XXXX OOO	Data Call In
CGA-12223	O	XXX	XX	XX O	X OO	OOO	Not marketed in U.S.
Chipco-RP26019	X	XX	XXX	XXXX		X	
Chlorobenzilate	X			X		XXXXXXXX	RPAR Data Call In
Chloropropham	XXXX	XXX	XX	X OO	X O	XX O	Data Call In
Chlorothalionil	XXX	XX	XXXXXXXXX	XXXX		XXXXXX	Data Call In
Chloropyrifos	X	XX		XXX	X=30	XXXX	Data Call In
Chloropropylate				X		X	Data Call In Discontinued Product

O - IBT

CHEMICAL COMPOUNDS TESTED BY INDUSTRIAL BIO-TEST LABORATORIES:
A QUANTITATIVE PRESENTATION OF STUDIES SUBMITTED TO EPA BY IBT AND OTHER LABORATORIES.

CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Cidial, Phenthoate Dimethoate	O	O	X OO	OO	XX O	X	RPAR Registration Stnd
Ciodrin	X		XX		XXXXXXXX		
Cobex	OO	O				OOO	Data Call In-suspended
Coral		X		X OO	X=20 O	XXXXXX	Registration Standard
Curacron (Profenofos)	XX O	XX	XX	XXXXXXX O	XXXXXX OO	XXX O	
Cycle		X				X OOOO	Discontinued Product
Cycocel	X		X			X	
Cyprazine	O						Data Call In Discontinued Product
Dasanit		X O	O	X	XXXXXXXXX XXXXXX	XX	Data Call In
DCPA			XXXX	XXX O		XX	

O = IBT

CHEMICAL COMPOUNDS TESTED BY INDUSTRIAL BIO-TEST LABORATORIES:
A QUANTITATIVE PRESENTATION OF STUDIES SUBMITTED TO EPA BY IBT AND OTHER LABORATORIES.

CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Delnav	XX			O	XXXXXXXXX XXXXXX	XXX	Data Call In
Desmedipham		OO	X		O		
Diazinon	XXX O	XXXXX	XXXXXX	XXX	X=36	XXXXXX	Data Call In
Dicamba	O	XXXXX O	X OOO	XXX O		XXXX	Data Call In
Dichlobenil						XX OO	Data Call In
Difolatan	X	OOOOOOOO	XX	XXXX OOO			Data Call In
Dinoseb		X O	X	X		XX	
Diquat	X	XXX	XXX	X OO		XXXX O	
Disyston		X O	XX O	XX	X=19 O		Data Call In
Dowco 233	XX	XXXX	XXXXXX	XXX		O	

O = IBT

CHEMICAL COMPOUNDS TESTED BY INDUSTRIAL BIO-TEST LABORATORIES:
A QUANTITATIVE PRESENTATION OF STUDIES SUBMITTED TO EPA BY IBT AND OTHER LABORATORIES.

CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Dowco 290	X	X	X	O			
Drepanon		O		O		OOOO	Not Registered
Embark	X	X		X	X	XX	
Endothall	XXX O	XXXXXX	XXXXXXXX	XX		XXXX	
EPN	XX		X	X	X=30 OOOO		RPAR
Ethiolate		OO			OO		Discontinued Product
Ethion	O	X O	XX O	O	XXXXXXXXX OO		Data Call In
Fenvalerate	XX	XXXX	XXXXXXXXXX	XXXXXXXXXX X	X=24	X=23	Data Call In
Fenitrothion	X	X	XX	XX	X=20	XXX	
Fluroridamid		X					

O - IBT

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A QUANTITATIVE PRESENTATION OF STUDIES SUBMITTED TO EPA BY IBT AND OTHER LABORATORIES.

CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Folpet	XX	XXXXXX 00000	XXXX 0	00		X 00	Data Call In
FormetanateHCL		X 0	X 0	0	000000	00	Data Call In
Furloe (Chloropropham)	XXXXXX	XXXX	XXXX	XX 0	X	XXX	
Glutaraldehyde		0	X				Ultra minor non food use
Glyphosate	0	XX 000	X 0000	XXX 00	0	XX	Data Call In
Glyphosine	0	0	0	0	00	00	
Gossyplure			X				Data Call In
Heptachlor Epox	XXXXXXXX XX	XXXXX	XXXXX	XXXXXXXX 0	X	XXXXXXXX XXXXXX	All uses cancelled
Hinosan		X	0		XX		
Irgasan	00	X 0	XXXXXXXX XXXX	X 00		XX 0	

0 = IBT

CHEMICAL COMPOUNDS TESTED BY INDUSTRIAL BIO-TEST LABORATORIES:
A QUANTITATIVE PRESENTATION OF STUDIES SUBMITTED TO EPA BY IBT AND OTHER LABORATORIES.

CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Krenite		X		X			
Lasso	X O	XXX O	XXX OOOOO	X O		XX OO	Data Call In
Lorox		XX	XX	XXX		XXXXX	
Machete	O	X O	XXXXXX OOOO	XXXXXX OO	X	OOO	Data Call In
Maleic Hydra.	XXXXXX	X	XXXXX	X		XX	Data Call In
MCPA		XXXXXXXX	XXX	XX		X	Registration Standard
MCPP		XXXXX		X			
Merphos					XXXXXX		
Mesurol			X O	XXX O	XXXXXXXX XXXX OO	XXXXXXX	
Meta-Systox R		X O	O	X	XXXXXXXX XXX	XX OO	

O - IBT

CHEMICAL COMPOUNDS TESTED BY INDUSTRIAL BIO-TEST LABORATORIES:
A QUANTITATIVE PRESENTATION OF STUDIES SUBMITTED TO EPA BY IBT AND OTHER LABORATORIES.

CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Metobromuron				0		0000	Not registered in U.S.A.
Methazole	00	X	X 000	XXXXXXXX 0		00000	Data Call In
Methomyl	XXXXXX	XX	XX		XXXXXXXXX XX	XXXXXX	Registration Standard
Methoprene	XX	XXXXX 00	XX	XXXXXXXXX 0		XXXX	Registration Standard
Metolachlor	X 0	XX	XX	X 0		XXX 0	Registration Standard
Mocap (Ethoprop)		X	X		XX	0	
Monitor (Methamidophos)		X 00	X 0	XX 0	X=11 0=7	00	Registration Standard
Morestan	X	X	0	X 0		XXX	
Naled		X 0	XX	0	XXXXXX 000	00000	Data Call In
Nemacur	X 0	0	X 0	X	XXXXXXXX	XXXX	

0 = IBT

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CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Nemagon	X					XX	
Nemefene	XXX	0	XXXX	00		X 0	
Norea				0		000	Data Call In
Omadine		XXXXXXX 00000000	X 00	X	XXXXX	XX 000	Discontinued Product Data Call In
Omite-Comite	X	XXXX 0	X	X	0	XX	
Orthene (Acephate)	XXXX 0	XX 00	X 0	XXXX 000	X=12 00000	XXXX 000	
Oxadiazon	X	XXXX	X=16		X	XXX	Data Call In
Paraquat	X	XXXXX	XXXXX	XXXXXXX	0	XXXX 0	Date Call In
PCNB	XXX	XXXXXX	XXXX	XXXX		X=14	
Penncap E (ethyl parathion)	XX	X	XX	XX	X=37 0	X	

0 = IBT

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CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Penncap M. (methyl parathion)			XX	XXX	X=22	XXX O	
Permethrine	X=11	XXXXXXX	X=23	X=13	X=21	X=12	Data Call In
Phorate		X	XX	X	X=16 O		Data Call In
Phosalone	X	XXXX	XX	XXX	X=12	X	Registration Standard
Phosphamidon				000	XXXXXXX 000000	O	Data Call In
Picloram	X	XX O		XXX		X 000	Data Call In
Pik Off	X O	O	O	O		O	Not Registered
Piperonyl Butoxide	X	XXXXX O		X	XXX	X=9	Data Call In
Plictran	X	XX		XXX		X=9	
Polyram	XXX	X		XX O		X 000	Data Call In

O = IBT

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CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
PPG 124			X				
Profluralin	X	O		X		X	Data Call In
Prometon		O					
Prometryn		X	X	XX		X	
Propham	XXXXXX	XXX	XXXX	X	O		
Prowl	XXXXX	X OO	XXX	XXXXXX		XXXX O	Data Call In
Pyrethrin	X	XX		XXXXXX	XXXXX	X=10 O	
Rabon	XXX	O	XXXXX	XXXXX	XXX	XXXXXXX	
Ramrod	O	X OO	X O	OO		OOO	
Randox		O	X O	O		O	

O = IBT

CHEMICAL COMPOUNDS TESTED BY INDUSTRIAL BIO-TEST LABORATORIES:
A QUANTITATIVE PRESENTATION OF STUDIES SUBMITTED TO EPA BY IBT AND OTHER LABORATORIES.

CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Resmethrin	XXXX	XXXXXX 000	XXXX	XXX	XXXX	XXXXX	
Ronnel		XX 0		XXX	X=25	XX	Discontinued Product
Rydex (Prodiamine)	X 0	0	0	0		0000	Not Registered
Santophen		X 00	0	0			No Food Use
Sectrol	X	XXXXXXX	X	X=9	X=9	X=20 0	
Sencor	X 0	XXX 000	XXXXXXX 0	XX		XXX	
Simazine	XX 0	X	XX	XXX	X	XXXXXXX 0	Data Call In
Sodium Azide		0	XXXXX			XXX	
Sodium Bromide						X	
Sodium Chlorate				0		0	

0 = IBT

CHEMICAL COMPOUNDS TESTED BY INDUSTRIAL BIO-TEST LABORATORIES:
A QUANTITATIVE PRESENTATION OF STUDIES SUBMITTED TO EPA BY IBT AND OTHER LABORATORIES.

CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Sumitol		O					Discontinued Product
Supracide	X O		X=14	XX	X=26	XXXXX O	
Tedion			X	XXX O		XXXXXXXX	Data Call In Suspended
Terbufos	X	X O	XX	XXX	XXXXXX	XXXX	Data Call In
Terbuthylazine	X	O	XX	O		OO	Cancelled
Terbutryn		XX O	XXX	X		XXX	Data Call In
Terrazole	X	XXXXXX O	XX	XX		XXXXXXX	Registration Standard
Thidiazuron	O		X	O		O	
Thiodan	XXX	XX O	X O	O	XXXX O	XXXXXX OO	Registration Standard
Thiofanox		XX	X	XX	X=9 OO	XXX O	

O - IBT

CHEMICAL COMPOUNDS TESTED BY INDUSTRIAL BIO-TEST LABORATORIES:
A QUANTITATIVE PRESENTATION OF STUDIES SUBMITTED TO EPA BY IBT AND OTHER LABORATORIES.

CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Thiophanate	XX	XXX	X=10	XXXX	XX	XXXXXXXX	
Torak (dialifor)		000	X	0000	XXXXXX 000000	000	Registration Standard
Toxaphene	X			XXXX 0	XX 0	XXXX 00	RPAR
Triallate	X	X 0	XXXXXX 0	0	0	00	Data Call In
Triforine	X	XX	X 0	XX		XXXX	
Triphenyltin Hydr.	X	XXXXX		XXXXXX		X	
Vapona (DDVP)	X	XX	X=11	XX	X=70 0	XXXXXX	Data Call In
Velpar		XXX	X	XXXX		XXXXXX	Registration Standard
Vendex		XXX	XXX	XXXX	X	X=9	
Vinyzine				XX			

0 = IBT

CHEMICAL COMPOUNDS TESTED BY INDUSTRIAL BIO-TEST LABORATORIES:
A QUANTITATIVE PRESENTATION OF STUDIES SUBMITTED TO EPA BY IBT AND OTHER LABORATORIES.

CHEMICALS	ONCOGENICITY	TERATOGENICITY	MUTAGENICITY	REPRODUCTIVE EFFECTS	NEUROTOXICITY	OTHER CHRONIC EFFECTS	REGULATORY ACTIVITY TO GENERATE CHRONIC DATA
Visco 1152		XX	X			X	
Visco 1153		XX	X			X	
Vitavax	X	XXX	XXX			XXXXXX OO	
Vorlex	XXX	XX O	XXXX	O		X O	
Vydate (oxamyl)	X	XXXXX	XX	XXXXXXXX	X	XXX	
4-Amino-pyridine							Registration Standard
2,4-D		X=11	XXXXX	XXXXX		XXXX	Data Call In

O = IBT

EXHIBIT B

IBT TRACKING SYSTEM REPORT

IBT TRACKING SYSTEM REPORT

CODE DEFINITIONS

VALIDATE: a review designed to determine if the information in the final report was supported by the raw data from the study.

I - Invalid. The information in the final report was not supported by the raw data from the study.
P - Pending. The study is still under validation review.
S - Supplemental. Portions of the study are valid and can be used independently of the remainder of the study.
V - Valid. The information in the final report is supported by the raw data from the study.

EVALUATE: a review designed to determine if a study meets Agency guidelines for studies to be used in support of pesticide registration.

C, CM - Core minimum. The study meets the regulatory data requirements to support pesticide registration.
S, CS - Core supplemental. The study is useful to supplement other studies.
I, CI - Core invalid. The study does not meet the regulatory data requirements to support registration.
P - Pending. The study is still under evaluation review.
NA - Not applicable. The study was not given an evaluation status if the validation process determined it to be invalid.

REPLACE: the column indicating the replacement status of the study.

Replaced - Study replaced or in progress
Discussion - Replacement study under discussion
Not Req - Study no longer required
No Resp - No response from registrant
Neg Resp - Negative response from registrant

IBT TRACKING SYSTEM REPORT

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
B-1708	ALAR	UNIROYAL		TERATOLOGY	RAT	I	NA	REPLACED
B-4715	AMETRYN	CIBA GEIGY	ORAL	CHRONIC	RAT	I	NA	DISCUSSION
C-4716	AMETRYN	CIBA GEIGY	ORAL	CHRONIC	DOG	I	NA	DISCUSSION
P-4709	AMETRYN	CIBA GEIGY		REPRODUCTION	RAT	I	NA	DISCUSSION
2945	AMETRYN	CIBA GEIGY	DERMAL		RAT/RABBIT	I	NA	NOT REQ
601-4274	ANTOR	BFC	DERMAL	SUBACUTE	RABBIT	V		NO RESP
611-8169	ANTOR	BFC	ORAL	SUBCHRONIC	DOG	V	P	REPLACED
622-0466	ANTOR	BFC	ORAL	SUBCHRONIC	RAT	P		NO RESP
622-3059	ANTOR	BFC	ORAL	SUBCHRONIC	RAT	I	NA	REPLACED
622-8166	ANTOR	BFC	ORAL	SUBCHRONIC	RAT	V		NO RESP
8560-10525	ANTOR	BFC	ORAL	CHRONIC	RAT	V		NO RESP
8580-08351	ANTOR	BFC	ORAL	CHRONIC	MOUSE	V	NA	NO RESP
8560-8350	ANTOR	BFC	ORAL		RAT	I	NA	NO RESP
622-6769	ATRAZINE	CIBA GEIGY	ORAL	CHRONIC	RAT	S		REPLACED
8580-8906	ATRAZINE	CIBA GEIGY	ORAL	CHRONIC	MICE	S		NO RESP
59-13	AVADEX	MONSANTO	ORAL	SUBCHRONIC	DOG	I	NA	DISCUSSION
59-13A	AVADEX	MONSANTO	ORAL	SUBCHRONIC	RAT	I	NA	DISCUSSION
59-13B	AVADEX	MONSANTO	ORAL	SUBCHRONIC	DOG	I	NA	DISCUSSION
59-13C	AVADEX	MONSANTO	ORAL	SUBCHRONIC	RAT	I	NA	DISCUSSION
622-5250	AVADEX	MONSANTO	ORAL	CHRONIC	RAT	I	NA	DISCUSSION
622-5252	AVADEX	MONSANTO		MUTAGENICITY	MOUSE	I	NA	DISCUSSION
623-6841	AVADEX	MONSANTO		REPRODUCTION	RAT	V	P	NO RESP
651-5254	AVADEX	MONSANTO		TERATOLOGY	RABBIT	I	NA	DISCUSSION
8530-9030	AVADEX	MONSANTO		CHOLINESTERASE	RAT	V		NO RESP
8580-10580	AVADEX	MONSANTO	ORAL	CHRONIC	DOG	P	NA	NO RESP
8532-10762	AVADEX	MONSANTO	ORAL		MOUSE	P		NO RESP
8580-10813	AVADEX	MONSANTO	NEURO		HEN	V	P	NO RESP
8580-9119	AVADEX	MONSANTO	NEURO		HEN	V	P	NO RESP
	AVADEX	MONSANTO	ORAL		RAT	I	NA	REPLACED
	AVADEX	MONSANTO	ORAL		DOG	I	NA	NEG RESP
B-2793	BACILLUS THURING	SANDOZ	ORAL	SUBACUTE	RAT	V	NA	REPLACED
B-585	BARBAN	VELSICOL	ORAL	CHRONIC	RAT	I	NA	REPLACED
C-721	BARBAN	VELSICOL	ORAL	CHRONIC	DOG	I	NA	REPLACED
1017	BARBAN	VELSICOL	ORAL	CHRONIC	RAT	I	NA	REPLACED
563	BARBAN	VELSICOL	ORAL		RAT	I	NA	REPLACED
E-8917	BAYGON	CHEMAGRO		MUTAGENICITY	MOUSE	I	NA	NEG RESP
A-5372	BENZADOX	GULF	DERMAL	SUBACUTE	RABBIT	I	NA	NO RESP
B-4381	BENZADOX	GULF	ORAL	SUBACUTE	RAT	I	NA	NO RESP
C-4382	BENZADOX	GULF	ORAL	SUBCHRONIC	DOG	I	NA	NO RESP
A-1884	BIFENOX	MOBIL	DERMAL	SUBACUTE	RABBIT	I	NA	NEG RESP
B-1474	BIFENOX	MOBIL	ORAL	SUBCHRONIC	RAT	V	P	NO RESP
B-2156	BIFENOX	MOBIL		TERATOLOGY	RAT	V	P	NO RESP
C-1475	BIFENOX	MOBIL	ORAL	SUBCHRONIC	DOG	V	P	NO RESP
E-2155	BIFENOX	MOBIL		MUTAGENICITY	MOUSE	I	NA	NEG RESP
J-1548	BIFENOX	MOBIL		CATARACTEGEN	HEN	I	NA	NEG RESP
J-782	BIFENOX	MOBIL		CATARACTEGEN	HEN	I	NA	NEG RESP
621-5532	BIFENOX	MOBIL	ORAL	CHRONIC	DOG	V	P	NO RESP
621-5533	BIFENOX	MOBIL	ORAL	CHRONIC	RAT	I	NA	NEG RESP
623-6793	BIFENOX	MOBIL		REPRODUCTION	RAT	V		NO RESP
8530-8513	BIFENOX	MOBIL	DERMAL	SUBACUTE	RABBIT	V	P	NO RESP
8580-9571	BIFENOX	MOBIL	ORAL	SUBACUTE	QUAIL	I	NA	NO RESP
	BINAPACRYL	FMC	ORAL	CHRONIC	CAT	P	NA	NEG RESP
	BINAPACRYL	FMC	ORAL	SUBCHRONIC	RAT	P	NA	NEG RESP
	BINAPACRYL	FMC	ORAL	SUBCHRONIC	DOG	P	NA	NEG RESP
	BINAPACRYL	FMC	PERCUTAN	SUBACUTE	RABBIT	P	NA	NEG RESP

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
B-2210	BINAPACRYL	FMC	ORAL	CHRONIC	RAT	I	NA	NEG RESP
B-2705	BINAPACRYL	FMC		REPRODUCTION	RAT	I	NA	NEG RESP
C-1426	BINAPACRYL	FMC		CATARACTEGEN	HEN	I	NA	NEG RESP
C-2209	BINAPACRYL	FMC	ORAL	CHRONIC	DOG	I	NA	NEG RESP
DPP1	BINAPACRYL	FMC	ORAL		DOG	I	NA	NEG RESP
J-238	BLADEX	SHELL		TERATOLOGY	RABBIT	I	NA	REPLACED
8530-11112	BLADEX	SHELL		TERATOLOGY	RABBIT	I	NA	REPLACED
B-353	BOLERO	CHEVRON	ORAL	SUBACUTE	RAT	I	NA	REPLACED
C-610	BOLERO	CHEVRON	ORAL	SUBACUTE	DOG	I	NA	REPLACED
601-5223	BOLERO	CHEVRON	DERMAL	SUBACUTE	RABBIT	I	NA	NEG RESP
621-2095	BOLERO	CHEVRON	ORAL	CHRONIC	RAT	I	NA	REPLACED
621-4652	BOLERO	CHEVRON	ORAL	CHRONIC	RAT	I	NA	REPLACED
622-2440	BOLERO	CHEVRON		REPRODUCTION	RAT	I	NA	REPLACED
622-2440	BOLERO	CHEVRON		TERATOLOGY	RAT	I	NA	REPLACED
622-5225	BOLERO	CHEVRON		MUTAGENICITY	MOUSE	I	NA	REPLACED
651-2096	BOLERO	CHEVRON	ORAL	CHRONIC	DOG	I	NA	REPLACED
651-5143	BOLERO	CHEVRON	ORAL	CHRONIC	DOG	I	NA	REPLACED
651-5265	BOLERO	CHEVRON		TERATOLOGY	RABBIT	I	NA	REPLACED
8533-10026	BOLERO	CHEVRON		MUTAGENICITY	MOUSE	I	NA	REPLACED
651-7433	BOLERO	CHEVRON			HEN	V	V	NEG RESP
8580-10025	BOLERO	CHEVRON	NEURO		HEN	S	S	REPLACED
C-6581	BROMOPHENOXIM	CIBA GEIGY	ORAL	SUBCHRONIC	DOG	I	NA	NEG RESP
B-5433	BROMOPROPYLATE	CIBA GEIGY	ORAL	CHRONIC	RAT	P		NEG RESP
622-5433	BROMOPROPYLATE	CIBA GEIGY	ORAL	CHRONIC	RAT	I	NA	NEG RESP
622-6724	BROMOPROPYLATE	CIBA GEIGY		REPRODUCTION	RAT	P		NO RESP
622-6726	BROMOPROPYLATE	CIBA GEIGY		CARCINOGENICITY	MOUSE	S	S	NEG RESP
8531-9996	BROMOPROPYLATE	CIBA GEIGY		CHOLINESTERASE	DOG	I	NA	NEG RESP
B-7120	BUSAN 74	BUCKMAN	ORAL	SUBCHRONIC	RAT	I	NA	REPLACED
C-7121	BUSAN 74	BUCKMAN	ORAL	SUBCHRONIC	DOG	V		NO RESP
611-03366	BUTAM	GULF	ORAL	SUBACUTE	DOG	I	NA	NOT REQ
622-03363	BUTAM	GULF	ORAL	SUBACUTE	RAT	I	NA	NOT REQ
A-8995	BUTYLTIN OXIDE		DERMAL	SUBCHRONIC	RABBIT	I	NA	NO RESP
A-3886	BUX	CHEVRON	DERMAL	SUBACUTE	RABBIT	I	NA	NEG RESP
A-4407	BUX	CHEVRON	DERMAL	SUBACUTE	RABBIT	I	NA	NEG RESP
B-3422	BUX	CHEVRON	ORAL	SUBCHRONIC	DOG	I	N	NEG RESP
B-3653	BUX	CHEVRON	ORAL	SUBCHRONIC	RAT	I	NA	NEG RESP
B-4130	BUX	CHEVRON		CHOLINESTERASE	RAT	I	NA	NEG RESP
B-4339	BUX	CHEVRON		REPRODUCTION	RAT	I	NA	NEG RESP
C-3655	BUX	CHEVRON	ORAL	SUBCHRONIC	DOG	I	NA	NEG RESP
J-4330	BUX	CHEVRON		DEMYELINATION	HEN	I	NA	NEG RESP
J-5536	BUX	CHEVRON		TERATOLOGY	RAT	I	NA	
J-5863	BUX	CHEVRON		TERATOLOGY	RABBIT	I	NA	NEG RESP
B-2804	CAPTAN	AMER/ SEED/CHEVRON		REPRODUCTION	RAT	I	NA	REPLACED
B-9267	CAPTAN	AMER SEED/CHEVRON	ORAL	CHRONIC	RAT	I	NA	REPLACED
B-9271	CAPTAN	AMER SEED/CHEVRON		CARCINOGENIC	MOUSE	I	NA	REPLACED
J-139	CAPTAN	CHEVRON		TERATOLOGY	RABBIT	I	NA	REPLACED
J-5420	CAPTAN	CHEVRON		TERATOLOGY	RABBIT	I	NA	NO RESP
J-5438	CAPTAN	AMER SEED/CHEVRON		PROGENY	DOG	I	NA	NO RESP
P-5397	CAPTAN	AMER SEED/CHEVRON		TERATOLOGY	RAT	I	NA	NO RESP
P-5398	CAPTAN	AMER SEED/CHEVRON		TERATOLOGY	RABBT/HAMSTR	I	NA	REPLACED
P-5570	CAPTAN	AMER SEED/CHEVRON		MUTAGENICITY	MOUSE	I	NA	REPLACED
WCRF-139	CAPTAN	AMER SEED/CHEVRON		REPRODUCTN	CHICKEN	I	NA	NOT REQ
621-5519	CAPTAN	AMER SEED/CHEVRON		TERATOLOGY	MONKEY	I	NA	NO RESP
622-5998	CAPTAN	AMER SEED/CAPTAN		DOMINANT LETHAL	MOUSE	I	NA	NO RESP
623-5998	CAPTAN	AMER SEED/CHEVRON		DOMINANT LETHAL	MOUSE	I	NA	NO RESP
8530-9030	CARBARYL	MONSANTO		CHOLINESTERASE	RAT	V	P	NO RESP

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
A-7099	CARBOFURAN	FMC	ORAL	SUBACUTE	RABBIT	I	NA	NOT REQ
A-972	CARBOFURAN	FMC		CHOLINESTERASE	RAT	I	NA	REPLACED
B-1590	CARBOFURAN	FMC	ORAL	SUBCHRONIC	RAT	I	NA	REPLACED
B-1591	CARBOFURAN	FMC	ORAL	SUBCHRONIC	RAT	I	NA	NOT REQ
B-3113	CARBOFURAN	FMC	ORAL	SUBCHRONIC	RAT	I	NA	REPLACED
B-3637	CARBOFURAN	FMC	ORAL	CHRONIC	RAT	I	NA	REPLACED
B-3638	CARBOFURAN	FMC		REPRODUCTION	RAT	I	NA	REPLACED
B-400A	CARBOFURAN	FMC		CARCINOGENICITY	MOUSE	I	NA	REPLACED
B-4443	CARBOFURAN	FMC		CHOLINESTERASE	RAT	I	NA	REPLACED
B-6845	CARBOFURAN	FMC	ORAL	SUBACUTE	RAT	I	NA	REPLACED
B-973	CARBOFURAN	FMC		CHOLINESTERASE	RAT	I	NA	REPLACED
C-3636	CARBOFURAN	FMC	ORAL	CHRONIC	DOG	I	NA	REPLACED
C-4442	CARBOFURAN	FMC		CHOLINESTERASE	DOG	I	NA	REPLACED
E-401A	CARBOFURAN	FMC		MUTAGENICITY	RAT	V	CI	REPLACED
E-401B	CARBOFURAN	FMC		MUTAGENICITY	MOUSE	V	CI	REPLACED
J-5145	CARBOFURAN	FMC		TERATOLOGY	RABBIT	I	NA	REPLACED
J-6296	CARBOFURAN	FMC		REPRODUCTION	DOG	V	P	NO RESP
N-5183	CARBOFURAN	FMC	INHALATION	SUBACUTE	GUINEA PIG	I	NA	REPLACED
P-4387	CARBOFURAN	FMC		REPRODUCTION	RAT	I	NA	REPLACED
P-4802	CARBOFURAN	FMC		REPRODUCTION	RAT	I	NA	REPLACED
P-6315	CARBOFURAN	FMC		REPRODUCTION	RAT	I	NA	REPLACED
3891	CARBOFURAN	FMC	PERCUTAN	SUBACUTE	RABBIT	I	NA	NOT REQ
J-5144	CARBOFURAN	FMC	NEURO		HEN	I	NA	NOT REQ
622-5121A	CGA-12223	CIBA GEIGY	ORAL	SUBCHRONIC	RAT	I	NA	REPLACED
623-07922	CGA-12223	CIBA GEIGY		REPRODUCTION	RAT	I		NO RESP
8531-09995	CGA-12223	CIBA GEIGY		CHOLINESTERASE	DOG	V	S	NOT REQ
8532-07921	CGA-12223	CIBA GEIGY		CARCINOGENIC	MOUSE	P		NO RESP
611-5122A	CGA-12223	CIBA GEIGY	ORAL		DOG	S	S	REPLACED
8532-10607	CGA-12223	CIBA GEIGY	ORAL		RAT	P		NO RESP
8580-10767	CGA-12223	CIBA GEIGY	NEURO		HEN	S	S	NO RESP
C-6785	CHLORBROMURON	CIBA GEIGY		METHEMOGLOBIN	CAT	I	NA	NEG RESP
A-5253	CHLORBROMURON	CIBA GEIGY	DERMAL		RABBIT	I	NA	NEG RESP
B-5262	CHLORBROMURON	CIBA GEIGY	ORAL		RAT	I	NA	NEG RESP
C-5264	CHLORBROMURON	CIBA GEIGY	ORAL		DOG	I	NA	NEG RESP
A-3512	CHLOROBENZILATE	CIBA GEIGY	DERMAL		RABBIT	I	NA	NEG RESP
A-4646	CHLOROBENZILATE	CIBA GEIGY	DERMAL		RABBIT	I	NA	NEG RESP
90104	CHLOROPICRIN		ORAL	SUBACUTE	RAT	I	NA	NO RESP
P-5821	CHLOROPROPHAM	PPG		REPRODUCTION	RAT	I	NA	REPLACED
623-05515	CHLOROPROPHAM	PPG		REPRODUCTION	RAT	P		NO RESP
651-05514	CHLOROPROPHAM	PPG	ORAL	CHRONIC	MOUSE	P		NO RESP
C-4645	CHLOROPROPYLATE	CIBA GEIGY	ORAL	CHRONIC	DOG	I	NA	NEG RESP
663-3477	CHLOROTHALONIL	DIAMOND SHELL	INHALATION	SUBACUTE	RAT	I	NA	DISCUSSION
B-8829	COBEX	US BORAX	ORAL	SUBCHRONIC	RAT	I	NA	NEG RESP
B-9341	COBEX	US BORAX		CARCINOGENIC	RAT	I	NA	REPLACED
E-339	COBEX	US BORAX		MUTAGENICITY	MOUSE	V		NO RESP
J-8994	COBEX	US BORAX		TERATOLOGY	RABBIT	I	NA	REPLACED
J-9081	COBEX	US BORAX		CATEROGEN	CHICKEN	I	NA	REPLACED
J-9402	COBEX	US BORAX	DERMAL	CARCINOGEN	MOUSE	I	NA	REPLACED
A-1062	COBEX	US BORAX	DERMAL	TOX	RABBIT	I	NA	NEG RESP
C-8830	COBEX	US BORAX	ORAL		DOG	I	NA	NEG RESP
J-105	CORAL	CHEMAGRO		DEMYELINIATION	HEN	I	NA	REPLACED
J-2570	CORAL	CHEMAGRO		REPRODUCTION	HEN	I	NA	DISCUSSION
17838	CORAL	CHEMAGRO		REPRODUCTION	HEN	I	NA	DISCUSSION
611-5122B	CURACRON	CIBA GEIGY	ORAL	SUBCHRONIC	DOG	V	CM	REPLACED
611-5922A	CURACRON	CIBA GEIGY	ORAL	SUBCHRONIC	DOG	V	NA	NO RESP
622-5121B	CURACRON	CIBA GEIGY	ORAL	SUBCHRONIC	RAT	V	CM	REPLACED
622-6895	CURACRON	CIBA GEIGY	ORAL	CHRONIC	RAT	I	NA	REPLACED

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
622-7923	CURACRON	CIBA GEIGY		CARCINOGENICITY	MOUSE	S		NEG RESP
623-7924	CURACRON	CIBA GEIGY		REPRODUCTION	RAT	V	CM	REPLACED
8531-09996-1	CURACRON	CIBA GEIGY		CHOLINESTER	DOG	P		REPLACED
8531-9996(A)	CURACRON	CIBA GEIGY		CHOLINESTERASE	DOG	P		NO RESP
8580-10426	CURACRON	CIBA GEIGY	NEURO		HEN	V	CM	NO RESP
8580-11187	CURACRON	CIBA GEIGY	NEURO		HEN	S	CS	DISCUSSION
C-3595	CYCLE	CIBA GEIGY	ORAL		DOG	I	NA	NEG RESP
611-03715	CYCLE	CIBA GEIGY	ORAL		DOG	I	NA	NEG RESP
622-03594	CYCLE	CIBA GEIGY			AT	I	NA	NEG RESP
622-03719	CYCLE	CIBA GEIGY	ORAL		RAT	I	NA	NEG RESP
A-295	CYPRAZINE	GULF	DERMAL	SUBACUTE	RABBIT	I	NA	REPLACED
B-304	CYPRAZINE	GULF		TERATOLOGY	RAT	V		NO RESP
B-6277	CYPRAZINE	GULF	ORAL	SUBACUTE	RAT	P		NO RESP
B-9889	CYPRAZINE	GULF		CARCINOGENICITY	RAT	I	NA	REPLACED
C-6193	CYPRAZINE	GULF	ORAL	SUBCHRONIC	DOG	I	NA	REPLACED
C-9148	CYPRAZINE	GULF	ORAL	SUBACUTE	DOG	V	CI	NO RESP
C-9676	CYPRAZINE	GULF	ORAL	SUBACUTE	DOG	P		NO RESP
M-1275	CYPRAZINE	GULF	ORAL	SUBACUTE	RAT	P		NO RESP
A-3010	CYPROMID	GULF	DERMAL	SUBACUTE	RABBIT	I	NA	NEG RESP
B-3057	CYPROMID	GULF	ORAL		RAT	I	NA	NEG RESP
WCRF127	CYPROMID	GULF	ORAL		DOG	I	NA	NEG RESP
621-06998	D-PHENOTHRIN		ORAL	CHRONIC	RAT	I	NA	NO RESP
651-07001	D-PHENOTHRIN			TERATOLOGY	RABBIT	P		NO RESP
8533-07000	D-PHENOTHRIN			REPRODUCTION	RAT	V		NO RESP
8580-06999	D-PHENOTHRIN		ORAL		MOUSE	I	NA	NEG RESP
8537-9671	DANTOIN	GLYCO	DERMAL	SUBCHRONIC	RABBIT	S	S	NO RESP
E-8918	DASANIT	CHEMAGRO		MUTAGENICITY	MOUSE	I	NA	REPLACED
J-9028	DASANIT	CHEMAGRO		TERATOLOGY	RABBIT	I	NA	DISCUSSION
601-4030	DC 5700	DOW/CORNING	DERMAL	SUBCHRONIC	RABBIT	I	NA	REPLACED
8533-10126	DC 5700	DOW/CORNING		TERATOLOGY	RAT	I	NA	REPLACED
8533-10127	DC 5700	DOW/CORNING		MUTAGENICITY	RAT	I	NA	REPLACED
F-1905	DC 5700	DOW/CORNING	PATCH TEST		HUMAN	I	NA	REPLACED
J-2369	DCPA	DIAMOND SHAMROCK		REPRODUCTION	HEN	I	NA	NOT REQ
663-3477	DCPA	DIAMOND SHAMROCK	INHALATION	SUBACUTE	RAT	I	NA	NOT REQ
P-2476	DELNAV	BFC		REPRODUCTION	RAT	I	NA	DISCUSSION
A-454	DESMEDIPHAM	NORAM	DERMAL	SUBACUTE	RABBIT	I	NA	DISCUSSION
A-455	DESMEDIPHAM	NORAM		CHOLINESTERASE	RAT	I	NA	DISCUSSION
B-396	DESMEDIPHAM	NORAM	ORAL	SUBACUTE	RAT	I	NA	DISCUSSION
B-585	DESMEDIPHAM	NORAM		TERATOLOGY	RAT	I	NA	DISCUSSION
C-1441	DESMEDIPHAM	NORAM	ORAL	CHRONIC	DOG	V		NO RESP
J-397	DESMEDIPHAM	NORAM	ORAL	SUBCHRONIC	DOG	I	NA	DISCUSSION
M-459	DESMEDIPHAM	NORAM	INHALATION	SUBACUTE	RAT	S	CS	DISCUSSION
650-7187	DESMEDIPHAM	NORAM		TERATOLOGY	RABBIT	I	NA	NEG RESP
B-1349	DIAQUAT		ORAL	CHRONIC	RAT	I	NA	NO RESP
D-4321	DIAZINON	CIBA GEIGY	ORAL	SUBACUTE	HUMAN	I	NA	NOT REQ
8580-9381	DIAZINON	CIBA GEIGY		CARCINOGENICITY	MOUSE	I	NA	NEG RESP
E-9892	DICAMBA	VELSICOL		MUTAGENICITY	MOUSE	I	NA	NO RESP
J-9012	DICAMBA	VELSICOL		TERATOLOGY	MOUSE	I	NA	REPLACED
623-7847	DICAMBA	VELSICOL		MUTAGENICITY	MOUSE	I	NA	NO RESP
633-7848/A	DICAMBA	VELSICOL		MUTAGENICITY	BACTERIA	I	NA	NEG RESP
651-3279	DICAMBA	VELSICOL		REPRODUCTION	HEN	I	NA	NOT REQ
8580-10130	DICAMBA	VELSICOL	ORAL	CHRONIC,CARCIN	MOUSE	P	NA	
	DICHLOBENIL	CASORAN	PERCUTAN	SUBACUTE		I	NA	NO RESP
B-2526	DICHLOBENIL	CASORAN	ORAL		RAT	I	NA	REPLACED

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
J-471	DISYSTON	CHEMAGRO	NEURO		HEN	I	NA	REPLACED
621-6138	DOWCO 233	DOW	ORAL	CHRONIC	RAT	S	S	REPLACED
C-2529	DICHLOBENIL	CASORAN	ORAL		DOG	I	NA	REPLACED
	DICHLOBENIL	CASORAN	PERCUTAN	SUBACUTE		I	NA	NO RESP
B-1254	DIFOLATAN	CHEVRON	ORAL	CHRONIC	RAT	I	NA	REPLACED
B-2804	DIFOLATAN	CHEVRON		REPRODUCTION	RAT	I	NA	REPLACED
B-5397	DIFOLATAN	CHEVRON		TERATOLOGY	RAT	I	NA	REPLACED
C-1272	DIFOLATAN	CHEVRON	ORAL	CHRONIC	DOG	I	NA	NEG RESP
J-139	DIFOLATAN	CHEVRON		TERATOLOGY	RABBIT	I	NA	REPLACED
J-3681	DIFOLATAN	CHEVRON		TERATOLOGY	RABBIT	I	NA	REPLACED
J-5061	DIFOLATAN	CHEVRON		TERATOLOGY	RABBIT	I	NA	REPLACED
J-5110	DIFOLATAN	CHEVRON		TERATOLOGY	RABBIT	I	NA	REPLACED
J-5758	DIFOLATAN	CHEVRON		TERATOLOGY	HAMPSTER	I	NA	NEG RESP
M-5519	DIFOLATAN	CHEVRON		TERATOLOGY	MONKEY	V		NEG RESP
M-5519	DIFOLATAN	CHEVRON		TERATOLOGY	MONKEY	I	NA	NEG RESP
651-6459	DIFOLATAN	CHEVRON		REPRO % RESIDUE	HEN	I	NA	NEG RESP
P-8692	DINOSEB	VERTAC CHEM		TERATOLOGY	RAT	I	NA	NO RESP
B-1349	DIQUAT	CHEVRON	ORAL	CHRONIC	RAT	I	NA	REPLACED
8530-9549	DIQUAT	CHEVRON		REPRO % RESIDUE	HEN	P		NEG RESP
8580-8241	DIQUAT	CHEVRON		REPRO	DUCK	I	NA	REPLACED
8580-8242	DIQUAT	CHEVRON		REPRO	QUAIL	I	NA	REPLACED
8580-9546	DIQUAT	CHEVRON		REPRO % RESIDUE	HEN	V	NA	NEG RESP
E-8920	DISYSTON	CHEMAGRO		MUTAGENICITY	MOUSE	I	NA	REPLACED
J-9029	DISYSTON	CHEMAGRO		TERATOLOGY	RABBIT	I	NA	REPLACED
623-3859	DOWCO 290	DOW		REPRODUCTION	RAT	I	NA	REPLACED
C-1441B	DREPAMON	MONTEDISON	ORAL	CHRONIC	DOG	V		NO RESP
621-1440	DREPAMON	MONTEDISON	ORAL	CHRONIC	RAT	I	NA	NO RESP
622-01442	DREPAMON	MONTEDISON		REPRODUCTION	RAT	P		NO RESP
651-7187	DREPAMON	MONTEDISON		TERATOLOGY	RABBIT	I	NA	NO RESP
B-1442	DREPAMON	MONTEDISON		2	RAT	P		NO RESP
C-1441A	DREPAMON	MONTEDISON	ORAL		DOG	V		NO RESP
611-7135	EMBARK	3M	ORAL	SUBCHRONIC	DOG	V		NO RESP
621-03115	ENDOTHALL	3M/PENWALT	ORAL	CHRONIC	RAT	I	NA	NO RESP
621-03463	ENDOTHALL	3M/PENWALT	ORAL	SUBACUTE	RAT	I	NA	NO RESP
J-7734	ENDOTHALL	3M/PENWALT			HEN	V	V	NEG RESP
J-8532	ENDOTHALL	3M/PENWALT			HEN	V	V	NEG RESP
8580-10332	EPN	DUPONT	NEURO		HEN	V		NO RESP
8580-10430	EPN	NISSAN/VELSICOL	NEURO		HEN	V	CM	NEG RESP
8580-10526	EPN	NISSAN/VELSICOL	NEURO		HEN	S	S	REPLACED
8580-8633	EPN	NISSAN/VELSICOL	NEURO		HEN	I	NA	REPLACED
B-304	ETHIOLATE	GULF		TERATOLOGY	RAT	I	NA	NEG RESP
B-305	ETHIOLATE	GULF		TERATOLOGY	RAT	V	P	NO RESP
B-9875	ETHIOLATE	GULF	ORAL	SUBACUTE	RAT	I	NA	NEG RESP
C-9876	ETHIOLATE	GULF	ORAL	SUBACUTE	DOG	I	NA	NEG RESP
P-2461	ETHIOLATE	GULF		CHOLINESTERASE	RAT	I	NA	NEG RESP
P-2463	ETHIOLATE	GULF		CHOLINESTERASE	RAT	I	NA	NEG RESP
A-9040	ETHION	FMC	DERMAL	SUBACUTE	RABBIT	I	NA	REPLACED
B-1056	ETHION	FMC		TERATOLOGY	RAT	I	NA	REPLACED
B-8706	ETHION	FMC	ORAL	CHRONIC	RAT	I	NA	REPLACED

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
B-5349	FORMETENATE HCL	NORAM		CHOLINESTERASE	RAT	I	NA	DISCUSSION
C-5346	FORMETENATE HCL	NORAM	ORAL	CHRONIC	DOG	I	NA	NOT REQ
C-8705	ETHION	FMC	ORAL	CHRONIC	DOG	V	P	NOT REQ
C-975	ETHION	FMC		CHOLINESTERASE	DOG	I	NA	REPLACED
E-1057A	ETHION	FMC		MUTAGENICITY	MOUSE	V	P	REPLACED
F-8948	ETHION	FMC		CHOLINESTERASE	HUMAN	V		NO RESP
M-9041	ETHION	FMC	DERMAL	SUBACUTE	MONKEY	I	NA	NOT REQ
2705	ETHION	FMC		REPRODUCTION	RAT	I	NA	REPLACED
621-01058	ETHION	FMC		CARCINOGENICITY	MOUSE	I	NA	REPLACED
J-1059	ETHION	FMC	NEURO		HEN	I	NA	REPLACED
J-5425	ETHION	FMC			HEN	V	P	NO RESP
C-1667	FENITROTHION			CHOLINESTERASE	DOG	I	NA	NEG RESP
C-9997	FENITROTHION		ORAL	SUBCHRONIC	DOG	I	NA	NEG RESP
F-9999	FENITROTHION		ORAL	SUBCHR:CHOLINEST	HUMAN	I	NA	NEG RESP
J-4052	FENITROTHION			REPRODUCTION	DUCK/QUAIL	V	P	NO RESP
J-9995	FENITROTHION			TERATOLOGY	RABBIT	I	NA	NO RESP
J-9996	FENITROTHION			TERATOLOGY	RABBIT	V		NO RESP
J-9998	FENITROTHION		ORAL	CHRONIC	DOG	V		NO RESP
621-7168	FENITROTHION		ORAL	CHRONIC	MONKEY	I	NA	REPLACED
8580-9445	FENITROTHION		NEURO		HEN	I	NA	NEG RESP
601-7889	FENUALERATE	SHELL	DERMAL	SUBACUTE	RABBIT	I	NA	REPLACED
663-07419	FENUALERATE	SHELL	INHALATION	SUBACUTE	RAT	I	NA	REPLACED
B-5261	FLUORIDIFEN	CIBA GEIGY	ORAL		RAT	I	NA	NEG RESP
C-5263	FLUORIDIFEN	CIBA GEIGY	ORAL		DOG	I	NA	NEG RESP
A-3681	FOLPET	CHEVRON		TERATOLOGY	RABBIT	I	NA	REPLACED
B-3566	FOLPET	CHEVRON		REPRODUCTION	RAT	I	NA	REPLACED
C-7111	FOLPET	CHEVRON	ORAL	CHRONIC	DOG	I	NA	REPLACED
E-9099	FOLPET	CHEVRON		MUTAGENICITY	MOUSE	I	NA	REPLACED
J-139	FOLPET	CHEVRON		TERATOLOGY	RABBIT	I	NA	REPLACED
J-5420	FOLPET	CHEVRON		TERATOLOGY	RABBIT	I	NA	REPLACED
M-5519	FOLPET	CHEVRON		TERATOLOGY	MONKEY	I	NA	NEG RESP
P-5758	FOLPET	CHEVRON		TERATOLOGY	HAMPSTER	I	NA	NEG RESP
WCRF-152	FOLPET	NORAM		REPRODUCTION	RABBIT	I	NA	REPLACED
710	FOLPET	CHEVRON	ORAL	CHRONIC	RAT	I	NA	REPLACED
A-5344	FORMETENATE HCL	NORAM	DERMAL	SUBACUTE	RABBIT	I	NA	DISCUSSION
A-9144	FORMETENATE HCL	NORAM		CHOLINESTERASE	RAT	S	S	DISCUSSION
B-5345	FORMETENATE HCL	NORAM	ORAL	CHRONIC	RAT	I	NA	DISCUSSION
C-5350	FORMETENATE HCL	NORAM		CHOLINESTERASE	DOG	I	NA	DISCUSSION
D-6879	FORMETENATE HCL	NORAM		CHOLINESTERASE	DOG	I	NA	DISCUSSION
E-9145	FORMETENATE HCL	NORAM		PLACENTAL TRANS	RAT	I	NA	DISCUSSION
I-7144	FORMETENATE HCL	NORAM		CHOLINESTERASE	HUMAN	I	NA	DISCUSSION
J-9141	FORMETENATE HCL	NORAM		TERATOLOGY	RABBIT	I	NA	DISCUSSION
P-5347	FORMETENATE HCL	NORAM		REPRODUCTION	RAT	I	NA	DISCUSSION
P-9140	FORMETENATE HCL	NORAM		MUTAGENICITY	MOUSE	I	NA	DISCUSSION
E-5343	FORMETENATE HCL	NORAM	PATCH TEST		HUMAN	I	NA	DISCUSSION
J-5352	FORMETENATE HCL	NORAM	NEURO		HEN	I	NA	DISCUSSION
J-5354	FORMETENATE HCL	NORAM	DIETARY		PHES/DK/QUL	I	NA	DISCUSSION
P-5821	FURLOE	PPG		REPRODUCTION	RAT	I	NA	NO RESP
8533-9082	GLUTARALDEHYDE	3M		TERATOLOGY	RAT	I	NA	DISCUSSION

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
A-1549	GLYPHOSATE	MONSANTO	DERMAL	SUBCHRONIC	RABBIT	I	NA	REPLACED
A-2144	GLYPHOSATE	MONSANTO	DERMAL	SUBCHRONIC	RABBIT	I	NA	REPLACED
A-246BA	GLYPHOSATE	MONSANTO	DERMAL	SUBCHRONIC	RABBIT	I	NA	REPLACED
B-1020	GLYPHOSATE	MONSANTO	ORAL	SUBCHRONIC	RAT	V	I	NO RESP
B-564	GLYPHOSATE	MONSANTO	ORAL	CHRONIC	RAT	I	NA	REPLACED
B-566	GLYPHOSATE	MONSANTO		REPRODUCTION	RAT	V	I	REPLACED
B-569	GLYPHOSATE	MONSANTO		CARCINOGENICITY	MOUSE	I	NA	REPLACED
C-1021	GLYPHOSATE	MONSANTO	ORAL	SUBCHRONIC	DOG	V	I	NO RESP
E-567	GLYPHOSATE	MONSANTO		MUTAGENICITY	MOUSE	I	NA	REPLACED
J-565	GLYPHOSATE	MONSANTO	ORAL	CHRONIC	DOG	V	I	NO RESP
J-568	GLYPHOSATE	MONSANTO		TERATOLOGY	RABBIT	I	NA	REPLACED
601-5044	GLYPHOSATE	MONSANTO	ORAL	SUBCHRONIC	RABBIT	I	NA	NOT REQ
601-6527	GLYPHOSATE	MONSANTO		CHOLINESTERASE	RAT	I	NA	NOT REQ
623-7508	GLYPHOSATE	MONSANTO		MUTAGENICITY	RAT/MOUSE	V		NO RESP
633-7507	GLYPHOSATE	MONSANTO		AMES TEST		I	NA	REPLACED
633-7801	GLYPHOSATE	MONSANTO	ASSAY	RECOMBINATION		I	NA	REPLACED
651-3917	GLYPHOSATE	MONSANTO		REPRO&RESIDUE	HEN	V		NO RESP
651-5275	GLYPHOSATE	MONSANTO		TERATOLOGY	RABBIT	I	NA	REPLACED
663-6290	GLYPHOSATE	MONSANTO	INHALATION	SUBCHRONIC	RAT	I	NA	REPLACED
8533-8920	GLYPHOSATE	MONSANTO		MUTAGENICITY	MOUSE	I	NA	NEG RESP
8533-8923	GLYPHOSATE	MONSANTO		REPRODUCTION	RAT	I	NA	NO RESP
8560-8924	GLYPHOSATE	MONSANTO	FEEDING	PILOT & CHRONIC	RAT	P		NEG RESP
8580-8921	GLYPHOSATE	MONSANTO		TERATOLOGY	RABBIT	I	NA	NEG RESP
8580-8922	GLYPHOSATE	MONSANTO	ORAL	CHRONIC	DOG	P		NEG RESP
A-2468B	GLYPHOSATE	MONSANTO	DERMAL		RABBIT	I	NA	REPLACED
E-1753	GLYPHOSATE	MONSANTO			QUAIL	V	V	NEG RESP
J-3920	GLYPHOSATE	MONSANTO			SWINE	V	V	NEG RESP
632-3894	GLYPHOSATE	MONSANTO			CATTLE	V	V	NEG RESP
651-3918	GLYPHOSATE	MONSANTO			HEN	V	V	NEG RESP
8580-9117	GLYPHOSATE	MONSANTO	NEURO		HEN	V		NO RESP
A-8426	GLYPHOSINE	MONSANTO	DERMAL	SUBCHRONIC	RABBIT	I	NA	NO RESP
B-330	GLYPHOSINE	MONSANTO		SUBCHRONIC	RAT	I	NA	NEG RESP
B-8424	GLYPHOSINE	MONSANTO	ORAL	SUBACUTE	RAT	S	S	NO RESP
B-9555	GLYPHOSINE	MONSANTO	ORAL	CHRONIC	RAT	I	NA	NEG RESP
B-9558	GLYPHOSINE	MONSANTO		CARCINOGENICITY	MOUSE	I	NA	NEG RESP
B-9560	GLYPHOSINE	MONSANTO		REPRODUCTION	RAT	P		NO RESP
C-8425	GLYPHOSINE	MONSANTO	ORAL	SUBCHRONIC	DOG	S	S	NO RESP
C-9556	GLYPHOSINE	MONSANTO	ORAL	CHRONIC	DOG	I	NA	NEG RESP
E-9561	GLYPHOSINE	MONSANTO		MUTAGENICITY	MOUSE	I	NA	NEG RESP
J-9565	GLYPHOSINE	MONSANTO		TERATOLOGY	RABBIT	I	NA	NEG RESP
8580-9116	GLYPHOSINE	MONSANTO	NEURO		HEN	S	S	NO RESP
622-5557	GOODRITE 3125		ORAL	INUTERO EXPOSURE	RAT	V	P	NO RESP
611-5556	GOODRITE 3125		ORAL		DOG	V	P	NO RESP
8560-8881	GOSSYPLURE	CONREL	ORAL	SUBACUTE	RAT	S	S	REPLACED
8580-8883	GOSSYPLURE	CONREL	ORAL	SUBACUTE	DOG	S	S	REPLACED
611-8063	HARUADE	UNIROYAL	ORAL	SUBCHRONIC	DOG	V	NA	REPLACED
622-8070	HARUADE	UNIROYAL	ORAL	SUBCHRONIC	RAT	V	NA	REPLACED
J-6511	HEPTACHLOR EPOX	VELSICOL		REPRODUCTION	HEN	I	NA	NEG RESP
424	HINOSAN	MOBAY		MUTAGENICITY	MOUSE	I	NA	NEG RESP
C-5416	IRGASAN	CIBA GEIGY	DERMAL	SUBACUTE	DOG	I	NA	NO RESP

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
J-7112	IRGASAN	CIBA GEIGY		REPRODUCTION	RABBIT	I	NA	NO RESP
P-7113	IRGASAN	CIBA GEIGY		REPRODUCTION	RAT	I	NA	NO RESP
622-06047	IRGASAN	CIBA GEIGY	ORAL	CHRONIC	RAT	I	NA	NO RESP
A-8434	IRGASAN	CIBA GEIGY	DERMAL		RABBIT	I	NA	NO RESP
C-1435	IRGASAN	CIBA GEIGY	ORAL		DOG	I	NA	NO RESP
J-4915	IRGASAN	CIBA GEIGY	DERMAL		MOUSE	I	NA	NO RESP
602-02220	IRGASAN	CIBA GEIGY	DERMAL		MONKEY	I	NA	NO RESP
622-04554	IRGASAN	CIBA GEIGY	ORAL		RAT	I	NA	NO RESP
622-05278	IRGASAN	CIBA GEIGY	ORAL		MICE	I	NA	NO RESP
631-04784	IRGASAN	CIBA GEIGY	DERMAL		MONKEY	I	NA	REPLACED
A-6010	LASSO	MONSANTO	DERMAL	SUBACUTE	RABBIT	I	NA	NEG RESP
B-1182	LASSO	MONSANTO	ORAL	SUBCHRONIC	MOUSE	I	NA	NOT REQ
B-4477	LASSO	MONSANTO	ORAL	SUBCHRONIC	RAT	I	NA	NOT REQ
B-5987	LASSO	MONSANTO	ORAL	SUBCHRONIC	RAT	I	NA	NOT REQ
C-1181	LASSO	MONSANTO	ORAL	CHRONIC	DOG	I	NA	NOT REQ
C-4478	LASSO	MONSANTO	ORAL	SUBCHRONIC	DOG	I	NA	NOT REQ
C-5988	LASSO	MONSANTO	ORAL	SUBCHRONIC	DOG	I	NA	NOT REQ
E-1184	LASSO	MONSANTO		MUTAGENICITY	MOUSE	V	CI	NO RESP
J-1183	LASSO	MONSANTO		TERATOLOGY	RABBIT	I	NA	REPLACED
621-1180	LASSO	MONSANTO	ORAL	CHRONIC	RAT	I	NA	REPLACED
621-1182	LASSO	MONSANTO		CARCINOGENICITY	MOUSE	I	NA	REPLACED
622-1185	LASSO	MONSANTO		REPRODUCTION	RAT	I	NA	REPLACED
8533-8849	LASSO	MONSANTO		MUTAGENICITY	MOUSE	V	CI	NO RESP
8533-8850	LASSO	MONSANTO		MUTAGENICITY	MICRORGANISM	I	NA	REPLACED
8533-8851	LASSO	MONSANTO		MUTAGENICITY	RAT	V	CI	NO RESP
8533-8852	LASSO	MONSANTO		MUTAGENICITY	MICRORGANISM	I	NA	REPLACED
663-6288	LASSO	MONSANTO	INHALATION		RAT	V		NO RESP
A-7679	MACHETE	MONSANTO	DERMAL	SUBCHRONIC	RABBIT	I	NA	NOT REQ
A-7680	MACHETE	MONSANTO	DERMAL	SUBCHRONIC	RABBIT	P		NO RESP
A-9966	MACHETE	MONSANTO	DERMAL	SUBCHRONIC	RABBIT	I	NA	NOT REQ
B-8703	MACHETE	MONSANTO	ORAL	SUBACUTE	RAT	I	NA	REPLACED
C-2312	MACHETE	MONSANTO	ORAL	CHRONIC	DOG	V	CM	NEG RESP
C-8704	MACHETE	MONSANTO	ORAL	SUBACUTE	DOG	S	NA	NO RESP
E-2314	MACHETE	MONSANTO		MUTAGENICITY	MOUSE	I	NA	NEG RESP
621-02311	MACHETE	MONSANTO		CARCINOGENICITY	MOUSE	I	NA	REPLACED
621-2310	MACHETE	MONSANTO	ORAL	CHRONIC	RAT	I	NA	REPLACED
622-02313	MACHETE	MONSANTO		REPRODUCTION	RAT	I	NA	REPLACED
633-8181	MACHETE	MONSANTO		RECOMBINATION	SALMONELLA	I	NA	NO RESP
651-2315	MACHETE	MONSANTO		TERATOLOGY	RABBIT	I	NA	REPLACED
8536-08181	MACHETE	MONSANTO		REVERSE MUTATION	SALMONELLA	I	NA	REPLACED
8580-9731	MACHETE	MONSANTO		REPRO & RESIDUE	HEN	V	NA	NO RESP
611-4855	MALONOBEN	GULF	ORAL	SUBACUTE	DOG	I	NA	NEG RESP
621-8138	MALONOBEN	GULF		CARCINOGENICITY	RAT	I	NA	NEG RESP
622-4854	MALONOBEN	GULF	ORAL	SUBACUTE	RAT	I	NA	NEG RESP
651-8137	MALONOBEN	GULF		CARCINOGENICITY	MOUSE	I	NA	NEG RESP
T-1604	MBP			NEUROTOXICITY	MOUSE	I	NA	NEG RESP
E-8916	MESUROL	CHEMAGRO		MUTAGENICITY	MOUSE	I	NA	NEG RESP
J-105	MESUROL	CHEMAGRO		DEMYLINIATION	HEN	I	NA	NEG RESP
J-2570	MESUROL	CHEMAGRO		REPRODUCTION	HEN	I	NA	NEG RESP
16063	MESUROL	CHEMAGRO	NEURO		HEN	I	NA	NEG RESP
B-8965	META SYSTOX-R	CHEMAGRO	ORAL	CHRONIC	RAT	I	NA	NO RESP
C-8966	META SYSTOX-R	CHEMAGRO	ORAL	CHRONIC	DOG	V	CI	NO RESP
J-9025	META SYSTOX-R	CHEMAGRO		TERATOLOGY	RABBIT	I	NA	NO RESP
P-8915	META SYSTOX-R	CHEMAGRO		MUTAGENICITY	MOUSE	I	NA	NO RESP
B-7369	METHAZOLE	VELSICOL	ORAL	SUBACUTE	RAT	I	NA	NO RESP

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
C-7370	METHAZOLE	VELSICOL	ORAL	SUBACUTE	DOG	I	NA	NO RESP
E-2097A	METHAZOLE	VELSICOL		MUTAGENICITY	MOUSE	I	NA	NO RESP
E-2097B	METHAZOLE	VELSICOL		MUTAGENICITY	MOUSE	I	NA	NO RESP
632-03373	METHAZOLE	VELSICOL		MUTAGENICITY	MOUSE	I	NA	NO RESP
8532-8239	METHAZOLE	VELSICOL	ORAL	CHRONIC	RAT	P		NEG RESP
8533-8240	METHAZOLE	VELSICOL		REPRODUCTION	RAT	S	NA	REPLACED
8580-8238	METHAZOLE	VELSICOL	ORAL	CHRONIC	MOUSE	I	NA	NEG RESP
4180	METHOMYL	DUPONT	DERMAL	SUBACUTE	RABBIT	I	NA	REPLACED
A-1992	METHOPRENE	ZOECON	DERMAL	SUBACUTE	RABBIT	I	NA	NO RESP
B-1645	METHOPRENE	ZOECON	ORAL	SUBACUTE	RAT	I	NA	NO RESP
B-1982	METHOPRENE	ZOECON		TERATOLOGY	RAT	I	NA	REPLACED
J-1983	METHOPRENE	ZOECON		TERATOLOGY	RABBIT	I	NA	REPLACED
A-3773	METOBROMURON	CIBA.GEIGY	DERMAL	SUBACUTE	RABBIT	I	NA	NEG RESP
B-3972	METOBROMURON	CIBA GEIGY	ORAL	CHRONIC	RAT	I	NA	NEG RESP
C-3126	METOBROMURON	CIBA GEIGY	ORAL	CHRONIC		I	NA	NO RESP
C-3769	METOBROMURON	CIBA GEIGY	ORAL	CHRONIC	DOG	I	NA	NEG RESP
P-3770	METOBROMURON	CIBA GEIGY		REPRODUCTION	RAT	I	NA	NEG RESP
3768	METOBROMURON	CIBA GEIGY	ORAL/DERMAL	SUBACUTE	RAT	I	NA	NO RESP
A-3774	METOBROMURON	CIBA GEIGY	DERMAL		RABBIT	I	NA	NEG RESP
622-7925	METOLACHLOR	CIBA GEIGY		CARCINOGENICITY	MOUSE	P		NO RESP
622-7926	METOLACHLOR	CIBA GEIGY	ORAL	CHRONIC	RAT	S	S	REPLACED
623-7928	METOLACHLOR	CIBA GEIGY		REPRODUCTION	RAT	S	S	REPLACED
A-6479	MONITOR	CHEVRON	DERMAL	SUBACUTE	RABBIT	I	NA	NEG RESP
B-2442A	MONITOR	CHEVRON		CHOLINESTERASE	RAT	I	NA	REPLACED
B-5485	MONITOR	CHEVRON	ORAL	CHRONIC	RAT	I	NA	REPLACED
B-6484	MONITOR	CHEVRON		CHOLINESTERASE	RAT	I	NA	REPLACED
B-6485	MONITOR	CHEVRON		CHOLINESTERASE	DOG	I	NA	REPLACED
C-5468	MONITOR	CHEVRON	ORAL	CHRONIC	DOG	I	NA	REPLACED
C-8128	MONITOR	CHEVRON		CHOLINESTERASE	DOG	I	NA	REPLACED
E-9517	MONITOR	CHEVRON		MUTAGENICITY	MOUSE	I	NA	REPLACED
I-7081	MONITOR	CHEVRON		CHOLINESTERASE	DOG	I	NA	REPLACED
J-9515	MONITOR	CHEVRON		TERATOLOGY	RABBIT	I	NA	REPLACED
N-9516	MONITOR	CHEVRON	INHALATION	SUBACUTE	RAT	I	NA	NEG RESP
P-6255	MONITOR	CHEVRON		REPRODUCTION	RAT	I	NA	REPLACED
C-6486	MONITOR	CHEVRON	FEEDING		RAT	I	NA	REPLACED
J-6480	MONITOR	CHEVRON	NEURO		HEN	I	NA	REPLACED
J-9546	MONITOR	CHEVRON	NEURO		HEN	I	NA	REPLACED
J-8908	MORESTAN	CHEMAGRO		SPERMATOGENESIS	DOG	S	S	NEG RESP
P-8913	MORESTAN	CHEMAGRO		MUTAGENICITY	MOUSE	I	NA	NEG RESP
651-03393	MSMA	DIAMOND SHAMROCK	DIETARY	SUBACUTE	DUCK/QUAIL	I	NA	REPLACED
B-2804	NALED	CHEVRON		REPRODUCTION	RAT	I	NA	REPLACED
B-2948	NALED	CHEVRON	ORAL	CHRONIC	RAT	I	NA	REPLACED
B-3705	NALED	CHEVRON	ORAL	SUBCHRONIC	RAT	I	NA	REPLACED
C-1012	NALED	CHEVRON	ORAL	SUBACUTE	DOG	I	NA	REPLACED
C-1012	NALED	CHEVRON		DEMYELINATION	DOG	I	NA	NEG RESP
C-1240	NALED	CHEVRON	ORAL	SUBACUTE	DOG	I	NA	REPLACED
C-1446	NALED	CHEVRON	ORAL	CHRONIC	DOG	I	NA	NEG RESP
D-2203	NALED	CHEVRON	ORAL	SUBACUTE	COW	I	NA	NEG RESP
D-2203	NALED	CHEVRON		CHOLINESTERASE	RAT	I	NA	REPLACED
E-1022	NALED	CHEVRON		MUTAGENICITY	MOUSE	I	NA	NEG RESP
OPP3	NALED	CHEVRON		NEUROTOX	CHICKEN	I	NA	NO RESP
1010	NALED	CHEVRON	ORAL	SUBACUTE	RAT	I	NA	REPLACED
1568	NALED	CHEVRON	FEEDING	SUBACUTE	RAT	I	NA	REPLACED

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
8580-8991	NALED	CHEVRON		TERATOLOGY	RABBIT	I	NA	NEG RESP
965(2-62)	NALED	CHEVRON	INHALATION	SUBACUTE	GUINEA PIG	I	NA	NEG RESP
965(7-62)	NALED	CHEVRON		PECUTANEOUS	RABBIT	I	NA	NEG RESP
B-1445	NALED	CHEVRON	ORAL		RAT	I	NA	NEG RESP
965(6-62)	NALED	CHEVRON	PATCH TEST		HUMAN	I	NA	NEG RESP
B-9068	NEMACUR	MOBAY		CARCINOGENICITY	MOUSE	I	NA	REPLACED
J-9024	NEMACUR	MOBAY		TERATOLOGY	RABBIT	I	NA	REPLACED
P-8914	NEMACUR	MOBAY		MUTAGENICITY	MOUSE	I	NA	REPLACED
621-6001	NEMEFENE	SHELL		REPRODUCTION	RAT	I	NA	NO RESP
621-6002	NEMEFENE	SHELL		REPRODUCTION	RAT	I	NA	NO RESP
623-6212	NEMEFENE	SHELL		TERATOLOGY	RAT	I	NA	NO RESP
651-6000	NEMEFENE	SHELL	ORAL	CHRONIC	DOG	I	NA	NO RESP
C-8798	NICOTINE	BLACK LEAF	ORAL		DOG	I	NA	NO RESP
J-8797	NICOTINE	BLACK LEAF			HEN	V	V	NEG RESP
J-9400	NICOTINE	BLACK LEAF			HEN	P		NO RESP
C-1772	NOREA	BFC	ORAL	CHRONIC	DOG	I	NA	NEG RESP
1771	NOREA	BFC	ORAL	CRONIC	RAT	I	NA	NEG RESP
2476	NOREA	BFC		REPRODUCTION	RAT	I	NA	NEG RESP
9/62	NOREA	BFC	DERMAL	SUBACUTE	RABBIT	I	NA	NEG RESP
9/62	NOREA	BFC	ORAL	SUBCHRONIC	RAT	I	NA	NEG RESP
1773	NOREA	BFC	ORAL		RAT	I	NA	NEG RESP
B-1242	OMADINE	OLIN		TERATOLOGY	RAT	I	NA	NO RESP
B-346	OMADINE	OLIN		TERATOLOGY	RAT	I	NA	NO RESP
621-4599	OMADINE	OLIN	ORAL	SUBACUTE	MONKEY	I	NA	NO RESP
622-3088	OMADINE	OLIN		TERATOLOGY	RAT	I	NA	NO RESP
622-4598	OMADINE	OLIN	ORAL	SUBACUTE	RAT	I	NA	NO RESP
622-5693	OMADINE	OLIN		MUTAGENICITY	MOUSE	I	NA	NO RESP
622-8049	OMADINE	OLIN		TESTICULAR LESIO	MOUSE	P		NO RESP
623-8160	OMADINE	OLIN		TERATOLOGY	RAT	I	NA	NO RESP
623-8181	OMADINE	OLIN		MUTAGENICITY	MOUSE	I	NA	NO RESP
632-6372	OMADINE	OLIN		PLACENTAL TRANSF	RAT	I	NA	NO RESP
632-6541	OMADINE	OLIN		PLACENTAL TRANSF	PIG	I	NA	NO RESP
651-4101A	OMADINE	OLIN		TERATOLOGY	PIG	I	NA	NO RESP
651-4101B	OMADINE	OLIN		TERATOLOGY	PIG	I	NA	NO RESP
651-4101C	OMADINE	OLIN		TERATOLOGY	PIG	I	NA	NO RESP
651-4101D	OMADINE	OLIN		TERATOLOGY	PIG	I	NA	NO RESP
B-1707	OMITE-COMITE	UNIROYAL		TERATOLOGY	RAT	I	NA	REPLACED
663-4206	OMITE-COMITE	UNIROYAL	INHALATION	SUBCHRONIC	RAT	V		NO RESP
J-1201	OMITE-COMITE	UNIROYAL			HEN	V		NO RESP
651-05485	OMITE-COMITE	UNIROYAL			SWINE	V		NO RESP
A-776	ORTHENE	CHEVRON	DERMAL	SUBACUTE	BIRD	V	V	NO RESP
B-1116	ORTHENE	CHEVRON		CHOLINESTEASE	RAT	I	NA	REPLACED
B-190	ORTHENE	CHEVRON		TERATOLOGY	RAT	V	P	NO RESP
B-2442	ORTHENE	CHEVRON		CHOLINESTERASE	RAT	I	NA	REPLACED
B-8733	ORTHENE	CHEVRON	ORAL	CHRONIC	RAT	I	NA	REPLACED
B-8867	ORTHENE	CHEVRON	ORAL	SUBCHRONIC	RAT	I	NA	REPLACED
B-9269	ORTHENE	CHEVRON		CARCINOGENICITY	MICE	I	NA	REPLACED
B-9272	ORTHENE	CHEVRON		REPRODUCTION	RAT	I	NA	REPLACED
B-9526	ORTHENE	CHEVRON		CHOLINESTERASE	RAT	S	S	REPLACED
C-8732	ORTHENE	CHEVRON	ORAL	CHRONIC	DOG	V	P	NO RESP
C-9527	ORTHENE	CHEVRON	ORAL	SUBCHRONIC	DOG	I	NA	NEG RESP
E-193	ORTHENE	CHEVRON		MUTAGENICITY	MICE	I	NA	REPLACED
J-1378	ORTHENE	CHEVRON		REPRODUCTION	QUAIL	I	NA	NEG RESP
J-191	ORTHENE	CHEVRON		TERATOLOGY	RABBIT	I	NA	REPLACED
636-2498	ORTHENE	CHEVRON		CHOLINESTERASE	HUMAN	S	NA	NEG RESP

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
651-4807	ORTHENE	CHEVRON		REPRODUCTION	DUCK	I	NA	REPLACED
J-2042	ORTHENE	CHEVRON			CATTLE	V	V	NO RESP
J-2493	ORTHENE	CHEVRON			PIG	V	V	NO RESP
J-513	ORTHENE	CHEVRON	NEURO		HEN	I	NA	REPLACED
A-2791	PARAQUAT	CHEVRON	INHALATION	SUBCHRONIC	RAT/PIG/DOG	I	NA	REPLACED
A-3359	PARAQUAT	CHEVRON	DERMAL	SUBACUTE	RABBIT	I	NA	REPLACED
A-3686	PARAQUAT	CHEVRON	DERMAL	SUBACUTE	RABBIT	I	NA	REPLACED
B-1350	PARAQUAT	CHEVRON	ORAL	CHRONIC	RAT	I	NA	REPLACED
B-3796	PARAQUAT			SUBACUTE	COW	I	NA	REPLACED
C-1351	PARAQUAT	CHEVRON	ORAL	CHRONIC	DOG	I	NA	REPLACED
D-2723	PARAQUAT	CHEVRON	ORAL	SUBACUTE	COW	I	NA	NEG RESP
D-3030	PARAQUAT	CHEVRON	INHALATION	SUBACUTE	DOG	I	NA	NEG RESP
D-3030	PARAQUAT	CHEVRON	INHALATION	SUBACUTE	GUINEA PIG	I	NA	NEG RESP
D-3030	PARAQUAT	CHEVRON	INHALATION	SUBACUTE	RAT	I	NA	REPLACED
J-131	PARAQUAT	CHEVRON			DUCK	I	NA	NEG RESP
J-131	PARAQUAT	CHEVRON			PHEASANT	I	NA	REPLACED
651-4020	PARAQUAT	CHEVRON	DIETARY		PHEASANT	V	P	REPLACED
651-4381	PARAQUAT	CHEVRON	DIETARY		PHEASANT	V	P	REPLACED
651-5403	PARAQUAT	CHEVRON			HEN	I	NA	NEG RESP
J-131	PARAQUAT	CHEVRON			DUCK	I	NA	NEG RESP
J-131	PARAQUAT	CHEVRON			PHEASANT	I	NA	REPLACED
B-2068	PENNCAP M	PENWALT	ORAL	SUBCHRONIC	RAT	V	CI	NO RESP
J-2040	PENNCAP M	PENWALT	ORAL	SUBCHRONIC	DOG	V		NO RESP
621-4921	PENNCAP M	PENWALT	ORAT	CHRONIC	RAT	I	NA	NO RESP
A-2267	PERFLUIDONE	3M	DERMAL	SUBACUTE	RABBIT	I	NA	NEG RESP
8562-9315	PERFLUIDONE	3M	INHALATION	SUBACUTE	RAT	I	NA	NO RESP
A-6652	PHENMEDIPHAM	NOR AM C	DERMAL	SUBCHRONIC	RABBIT	V		NO RESP
A-7571	PHENMEDIPHAM	NOR AM C		CHOLINESTERASE	RAT	V		NO RESP
B-7149	PHENMEDIPHAM	NOR AM C	ORAL	SUBCHRONIC	RAT	V	NA	REPLACED
C-7150	PHENMEDIPHAM	NOR AM C	ORAL	SUBCHRONIC	DOG	V	NA	REPLACED
H-7657	PHENMEDIPHAM	NOR AM C	INHALATION	SUBCHRONIC	RAT	V		NO RESP
B-8892	PHENTHOATE	MONTEDISON	ORAL	CHRONIC	RAT	I	NA	NEG RESP
C-8884	PHENTHOATE	MONTEDISON	ORAL	CHRONIC	DOG	V	C	NO RESP
601-4413	PHENTHOATE	MONTEDISON	DERMAL	SUBCHRONIC	RABBIT	S	S	NEG RESP
601-4524	PHENTHOATE	MONTEDISON	DERMAL	SUBCHRONIC	RABBIT	I	NA	NEG RESP
622-4624	PHENTHOATE	MONTEDISON		ONCOGENICITY	MOUSE	I	NA	NEG RESP
622-5876	PHENTHOATE	MONTEDISON		MUTAGENICITY	MOUSE	I	NA	NEG RESP
623-3513	PHENTHOATE	MONTEDISON		REPRODUCTION	RAT	S	S	NEG RESP
623-3803	PHENTHOATE	MONTEDISON		REPRODUCTION	RAT	S	I	NEG RESP
632-4157	PHENTHOATE	MONTEDISON		MUTAGENICITY	MOUSE	I	NA	NEG RESP
651-5785	PHENTHOATE	MONTEDISON		TERATOLOGY	RAT	V	P	NEG RESP
651-5875	PHENTHOATE	MONTEDISON		TERATOLOGY	RABBIT	I	NA	NEG RESP
601-3802	PHENTHOATE	MONTEDISON	DERMAL		RABBIT	I	NA	NEG RESP
8580-8635	PHENTHOATE	MONTEDISON	NEURO		HEN	S	S	NEG RESP
C-1292	PHORATE	AMER CYANIMID		CHOLINESTERASE	DOG	I	NA	NO RESP
B-2804	PHOSPHAMIDON	CHEVRON		REPRODUCTION	RAT	I	NA	REPLACED
B-6960	PHOSPHAMIDON	CHEVRON						
	CHOLINESTERASE	RAT	I	NA	NEG RESP			
C-1382	PHOSPHAMIDON	CHEVRON						
ORAL	SUBACUTE	DOG	I	NA	NEG RESP			
C-1444	PHOSPHAMIDON	CHEVRON						
ORAL	CHRONIC	DOG	I	NA	REPLACED			
D-3092	PHOSPHAMIDON	CHEVRON						
	CHOLINESTERASE	RAT	I	NA	NEG RESP			

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
T-3035	PHOSPHAMIDON	CHEVRON						
INHALATION	SUBACUTE	RAT/DOG/G.P.	I	NA	NEG RESP			
WCRF 129	PHOSPHAMIDON	CHEVRON						
	DEMYELINIATION	HEN	I	NA	NO RESP			
WCRF 129R	PHOSPHAMIDON	CHEVRON						
	DEMYELINIATION	HEN	I	NA	NEG RESP			
1002A	PHOSPHAMIDON	CHEVRON						
	DEMYELINIATION	DOG	I	NA	NEG RESP			
1002B	PHOSPHAMIDON	CHEVRON						
	CHOLINESTERASE	DOG	I	NA	NEG RESP			
2589	PHOSPHAMIDON	CHEVRON						
	COMPARATIVE		I	NA	NEG RESP			
A-3085	PHOSPHAMIDON	CHEVRON						
ORAL		RAT	I	NA	REPLACED			
B-1443	PHOSPHAMIDON	CHEVRON						
ORAL		RAT	I	NA	NEG RESP			
B-8799	PICLORAM	DOW		TERATOLOGY	MOUSE	I	NA	REPLACED
C-1975	PICLORAM	DOW	ORAL	CHRONIC	DOG	I	NA	REPLACED
1974	PICLORAM	DOW	ORAL	CHRONIC	RAT	I	NA	REPLACED
2198	PICLORAM	DOW	PATCH TEST		HUMAN	I	NA	REPLACED
601-5447	PIK OFF	CIBA GEIGY	DERMAL	SUBACUTE	RABBIT	S	CS	NEG RESP
611-5277	PIK OFF	CIBA GEIGY	ORAL	SUBCHRONIC	DOG	I	NA	NEG RESP
611-6090	PIK OFF	CIBA GEIGY	ORAL	SUBCHRONIC	DOG	I	NA	NEG RESP
622-5276	PIK OFF	CIBA GEIGY	ORAL	SUBCHRONIC	RAT	I	NA	NEG RESP
8533-9374	PIK OFF	CIBA GEIGY	ORAL	CHRONIC	RAT	S	CS	NEG RESP
8533-9375	PIK OFF	CIBA GEIGY		REPRODUCTION	RAT	V	CM	NEG RESP
8533-9743	PIK OFF	CIBA GEIGY		TERATOLOGY	RAT	I	NA	NEG RESP
8533-10509	PIK OFF	CIBA GEIGY		MUTAGENICITY	SALMONELLA	I	NA	NEG RESP
8533-9376	PIK OFF	CIBA GEIGY		CARCINOGENICITY	MOUSE	I	NA	NEG RESP
8533-08317	PIPERONYL BUTOX	MGK		TERATOLOGY	RAT	I	NA	NOT REQ
663-6080	PIPERONYL BUTOX	MGK	INHALATION		MOUSE	V		NO RESP
B-1714	POLYRAM	FMC	ORAL	SUBACUTE	RAT	I	NA	REPLACED
B-1715	POLYRAM	FMC	ORAL	CHRONIC	RAT	I	NA	REPLACED
B-1715A	POLYRAM	FMC	ORAL	CHRONIC	RAT	I	NA	REPLACED
B-2705	POLYRAM	FMC		REPRODUCTION	RAT	I	NA	REPLACED
B-2766	POLYRAM	FMC	ORAL	SUBACUTE	RAT	I	NA	REPLACED
C-1716	POLYRAM	FMC	ORAL	CHRONIC	DOG	I	NA	NOT REQ
2178	POLYRAM	FMC	PERCUTAN	SUBACUTE	RABBIT	I	NA	NO RESP
2790	POLYRAM	FMC	ORAL	SUBACUTE	DOG	S	CS	NO RESP
B-5366	POTASSIUM AZIDE	PPG	ORAL	SUBACUTE	RAT	I	NA	NOT REQ
C-5367	POTASSIUM AZIDE	PPG	ORAL	SUBACUTE	DOG	I	NA	NOT REQ
622-3539	POTASSIUM AZIDE	PPG		TERATOLOGY	RAT	I	NA	NOT REQ
B-6758	POTASSIUM HEXA	PENWALT	ORAL	SUBACUTE	RAT	I	NA	NOT REQ
C-6759	POTASSIUM HEXA	PENWALT	ORAL	SUBCHRONIC	DOG	I	NA	NOT REQ
C-7380	POTASSIUM HEXA	PENWALT	THYROID	FUNCTION	DOG	I	NA	NOT REQ
B-8262	PPG 124	PPG	ORAL	SUBCHRONIC	DOG	I	NA	NO RESP
C-8262	PPG 124	PPG	ORAL	SUBACUTE TOX	DOG	I	NA	NEG RESP
B-8829	PRODIAMINE	VELSICOL		SUBCHRONIC	RAT	I	NA	NO RESP
E-399	PRODIAMINE	VELSICOL		MUTAGENICITY	MOUSE	I	NA	NO RESP
601-6055	PRODIAMINE	VELSICOL	DERMAL	SUBACUTE	RABBIT	I	NA	NO RESP
621-6644	PRODIAMINE	VELSICOL	ORAL	CHRONIC	RAT	S	CS	NO RESP
623-6981	PRODIAMINE	VELSICOL		REPRODUCTION	RAT	I	NA	NO RE...

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
651-6116	PRODIAMINE	VELSICOL		TERATOLOGY	RABBIT	I	NA	NO RESP
651-6224	PRODIAMINE	VELSICOL	ORAL	SUBCHRONIC	DOG	I	NA	NO RESP
651-6643	PRODIAMINE	VELSICOL		CATARACTEGEN	HEN	I	NA	NO RESP
651-7145	PRODIAMINE	VELSICOL		CARCINOGENICITY	MOUSE	I	NA	NO RESP
B-904	PROFLURALIN	CIBA GEIGY		TERATOLOGY	RAT	V	NA	NOT REQ
C-476	PROFLURALIN	CIBA GEIGY	ORAL	SUBCHRONIC	DOG	V		NEG RESP
P-475	PROFLURALIN	CIBA GEIGY	ORAL	SUBCHRONIC	RAT	V	NA	NEG RESP
A-675	PROFLURALIN	CIBA GEIGY	DERMAL		RABBIT	I	NA	NEG RESP
B-904	PROMETON	CIBA GEIGY		TERATOLOGY	RAT	S	P	NO RESP
	PROMETRYN	FMC	DERMAL		RABBIT	I	NA	NEG RESP
B-5633	PROPHAM	PPG	ORAL	SUBACUTE	RAT	I	NA	REPLACED
C-5634	PROPHAM	PPG	ORAL	SUBACUTE	DOG	I	NA	NEG RESP
J-8630B	PROPHAM	PPG			HEN	V	V	NEG RESP
B-1374A	PROWL	AMER CYANIMID		TERATOLOGY	RAT	I	NA	REPLACED
B-2324	PROWL	AMER CYANIMID		TERATOLOGY	RAT	I	NA	REPLACED
8580-9771	PROWL	AMER CYANIMID		CATARACTEGEN	HEN	V	CM	NEG RESP
663-6080	PYRETHRIN	MGK	INHALATION		MOUSE	V	P	NO RESP
J-239	RABON	SHELL		TERATOLOGY	RABBIT	I	NA	REPLACED
A-1330	RAMROD	MONSANTO	DERMAL	SUBACUTE	RABBIT	I	NA	NOT REQ
A-7183	RAMROD	MONSANTO	DERMAL	SUBACUTE	RABBIT	I	NA	NEG RESP
B-1174	RAMROD	MONSANTO		CARCINOGENICITY	MOUSE	I	NA	NEG RESP
B-5063	RAMROD	MONSANTO	ORAL	CHRONIC	RAT	I	NA	NOT REQ
B-5064	RAMROD	MONSANTO	ORAL	CHRONIC	DOG	I	NA	NOT REQ
B-5065	RAMROD	MONSANTO		REPRODUCTION	RAT	I	NA	NOT REQ
B-5083	RAMROD	MONSANTO	ORAL	SUBCHRONIC	RAT	I	NA	NOT REQ
B-5084	RAMROD	MONSANTO	ORAL	SUBCHRONIC	DOG	I	NA	NOT REQ
C-1173	RAMROD	MONSANTO	ORAL	CHRONIC	DOG	I	NA	
E-1177	RAMROD	MONSANTO		MUTAGENICITY	MOUSE	I	NA	NEG RESP
J-1175	RAMROD	MONSANTO		TERATOLOGY	RABBIT	I	NA	NEG RESP
621-1172	RAMROD	MONSANTO	ORAL	CHRONIC	RAT	I	NA	NEG RESP
622-1176	RAMROD	MONSANTO		REPRODUCTION	RAT	I	NA	NEG RESP
663-6289	RAMROD	MONSANTO	INHALATION	SUBACUTE	RAT	I	NA	NEG RESP
E-1751	RAMROD	MONSANTO			QUAIL	V	V	NEG RESP
J-7214	RAMROD	MONSANTO	DIETARY		QUAIL	I	NA	NOT REQ
621-1174	RAMROD	MONSANTO	ORAL		MOUSE	I	NA	REPLACED
B-4806	RANDOX	MONSANTO	ORAL	SUBACUTE	RAT	I	NA	NEG RESP
C-4807	RANDOX	MONSANTO	ORAL	SUBACUTE	DOG	I	NA	NEG RESP
621-06952	RANDOX	MONSANTO	ORAL	CHRONIC	RAT	I	NA	NEG RESP
623-6953	RANDOX	MONSANTO		REPRODUCTION	RAT	I	NA	NEG RESP
623-7090	RANDOX	MONSANTO		MUTAGENICITY	MOUSE	V	CI	NO RESP
651-0791	RANDOX	MONSANTO		TERATOLOGY	RABBIT	I	NA	NEG RESP
B-5580	RESMETHRIN		ORAL	SUBCHRONIC	RAT	I	NA	REPLACED
J-5579	RESMETHRIN			TERATOLOGY	RABBIT	I	NA	REPLACED
J-6146	RESMETHRIN			TERATOLOGY	RABBIT	I	NA	REPLACED
P-6178	RESMETHRIN			TERATOLOGY	MOUSE	I	NA	REPLACED
	RONNEL	DOW	TISS/SKEL	TERATOLOGY	RAT	I	NA	NEG RESP
A-2007	SANTOPHEN	MONSANTO	DERMAL	SUBCHRONIC	RABBIT	I	NA	NO RESP
B-2010	SANTOPHEN	MONSANTO	ORAL	SUBCHRONIC	RAT	S	S	NO RESP
C-2009	SANTOPHEN	MONSANTO	ORAL	SUBCHRONIC	DOG	I	NA	NO RESP
C-2011	SANTOPHEN	MONSANTO	ORAL	SUBCHRONIC	DOG	I	NA	NO RESP
E-2014	SANTOPHEN	MONSANTO		MUTAGENICITY	MOUSE	I	NA	NO RESP
J-2013	SANTOPHEN	MONSANTO		TERATOLOGY	RABBIT	I	NA	NO RESP
M-2041	SANTOPHEN	MONSANTO	INHALATION	SUBACUTE	RAT	I	NA	NO RESP

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
B-4056	TORAK	BFC		CHOLINESTERASE	RAT	S	S	NEG RESP
B-4345	TORAK	BFC	ORAL	CHRONIC	RAT	I	NA	NEG RESP
C-4007	TORAK	BFC	ORAL	SUBACUTE	DOG	I	NA	NEG RESP
C-4350	TORAK	BFC	ORAL	CHRONIC	DOG	I	NA	NEG RESP
E-4009	TORAK	BFC		CHOLINESTERASE	RAT	I	NA	NEG RESP
F-7110	TORAK	BFC		CHOLINESTERASE	HUMAN	I	NA	NEG RESP
F-7493	TORAK	BFC		CHOLINESTERASE	HUMAN	I	NA	NEG RESP
J-4529	TORAK	BFC		TERATOLOGY	RABBIT	I	NA	NEG RESP
M-6336	TORAK	BFC		CHOLINEST&TERATO	MONKEY	I	NA	NEG RESP
N-7310	TORAK	BFC		REPRODUCTION		I	NA	NEG RESP
P-4347	TORAK	BFC		REPRODUCTION	RAT	I	NA	NEG RESP
WCRF 158	TORAK	BFC		TERATOLOGY	RABBIT	I	NA	NEG RESP
623-3751	TORAK	BFC		REPRO & TERATOLO	RAT	P		NEG RESP
A-7308	TORAK	BFC	DERMAL		RABBIT	I	NA	NEG RESP
A-7848	TORAK	BFC	DERMAL		RABBIT	S	NA	NEG RESP
J-6351	TORAK	BFC	NEURO		HEN	I	NA	NEG RESP
2330	TOXAPHENE	BFC	ORAL	CHRONIC	DOG	I	NA	NEG RESP
2367	TOXAPHENE	BFC	INHALATION	SUBACUTE	DOG	I	NA	NEG RESP
2367	TOXAPHENE	BFC	INHALATION	SUBACUTE	RAT	I	NA	NEG RESP
2367	TOXAPHENE	BFC	INHALATION	SUBACUTE	GUINEA PIG	I	NA	NEG RESP
2476	TOXAPHENE	HERCULES		REPRODUCTION	RAT	I	NA	NO RESP
632-6451	TOXAPHENE	BFC	ORAL		HEN	V	NA	NEG RESP
A-8149	TRIALLATE	MONSANTO	DERMAL	SUBCHRONIC	RABBIT	I	NA	REPLACED
B-4834	TRIALLATE	MONSANTO	ORAL	SUBCHRONIC	RAT	I	NA	REPLACED
C-4835	TRIALLATE	MONSANTO	ORAL	SUBCHRONIC	DOG	I	NA	REPLACED
622-5251	TRIALLATE	MONSANTO	ORAL	CHRONIC	RAT	I	NA	NEG RESP
622-5253	TRIALLATE	MONSANTO		MUTAGENICITY	MOUSE	V	P	NO RESP
623-6842	TRIALLATE	MONSANTO		REPRODUCTION	RAT	V	P	NO RESP
651-5255	TRIALLATE	MONSANTO		TERATOLOGY	RABBIT	I	NA	REPLACED
8530-9030	TRIALLATE	MONSANTO		CHOLINESTERASE	RAT	V	P	NO RESP
8580-10581	TRIALLATE	MONSANTO	ORAL	CHRONIC	DOG	V	P	NO RESP
A-6678	TRIALLATE	MONSANTO			FISH	I	NA	REPLACED
A-6679	TRIALLATE	MONSANTO			FISH	I	NA	REPLACED
J-6676	TRIALLATE	MONSANTO			QUAIL	I	NA	REPLACED
J-6677	TRIALLATE	MONSANTO			QUAIL	I	NA	NOT REQ
651-2842	TRIALLATE	MONSANTO	ORAL		DUCK	V	P	NO RESP
651-3023	TRIALLATE	MONSANTO	ORAL		QUAIL	V	P	NO RESP
8532-10763	TRIALLATE	MONSANTO	ORAL		MOUSE	I	NA	NEG RESP
8580-10814	TRIALLATE	MONSANTO	NEURO		HEN	I	NA	NEG RESP
8580-9120	TRIALLATE	MONSANTO	NEURO		HEN	V		NO RESP
622-5459	TRIFORINE	CHEVRON		MUTAGENICITY	MOUSE	I	NA	NEG RESP
663-5460	TRIFORINE	CHEVRON	INHALATION	SUBACUTE	RAT	I	NA	NEG RESP
B-4634	TRIPHENYLTIN HYD	THOMPSON-HAYWARD	ORAL	SUBACUTE	RAT	I	NA	NOT REQ
C-3964	TRIPHENYLTIN HYD	THOMPSON-HAYWARD	ORAL	SUBACUTE	DOG	I	NA	NOT REQ
C-4343	TRIPHENYLTIN HYD	THOMPSON-HAYWARD	ORAL	SUBACUTE	DOG	I	NA	NOT REQ
611-8069	TRIVAX	UNIROYAL	ORAL		DOG	V	NA	NEG RESP
8532-8071	TRIVAX	UNIROYAL	ORAL		RAT	V	NA	NEG RESP
I7721	VAPONA	SHELL		CHOLINESTERASE	DOG	I	NA	NEG RESP
1568	VAPONA	SHELL	ORAL	SUBACUTE	RAT	I	NA	NEG RESP
C-4805	VEGADEX	MONSANTO	ORAL	SUBACUTE	DOG	I	NA	NEG RESP
621-6954	VEGADEX	MONSANTO	ORAL	CHRONIC	RAT	I	NA	NEG RESP
623-6955	VEGADEX	MONSANTO		REPRODUCTION	RAT	I	NA	NEG RESP
623-7092	VEGADEX	MONSANTO		MUTAGENICITY	MOUSE	I	NA	NEG RESP
651-7093	VEGADEX	MONSANTO		TERATOLOGY	RAT	I	NA	NEG RESP

IBT_NUM	CHEMICAL	COMPANY	ROUTE	TYPE	SPECIES	VALIDATE	EVALUATE	REPLACE
8530-9030	VEGADEX	MONSANTO		CHOLINESTERASE	RAT	V	NA	NO RESP
8532-10764	VEGADEX	MONSANTO	ORAL	SUBCHRONIC	MOUSE	I	NA	NEG RESP
8580-10582	VEGADEX	MONSANTO	ORAL	CHRONIC	DOG	I	NA	NEG RESP
B-4804	VEGADEX	MONSANTO	ORAL		RAT	I	NA	REPLACED
8580-10815	VEGADEX	MONSANTO	NEURO		HEN	V		NO RESP
8580-9118	VEGADEX	MONSANTO	NEURO		HEN	I	NA	NEG RESP
651-6763	VEL	SANDOZ	NUERO		HEN	I	NA	NO RESP
A-1159	VENDEX	SHELL	DERMAL	SUBACUTE	RABBIT	I	NA	NEG RESP
8560-8838	VINYZENE	VENTRON	ORAL	SUBACUTE	RAT	I	NA	DISCUSSION
622-07392	VORLEX		ORAL	SUBCHRONIC	RAT	V	P	NO RESP
623-07393	VORLEX			REPRODUCTION	RAT	V	P	NO RESP
	2,4-D	DOW	DERMAL	SUBACUTE	RABBIT	I	NA	NO RESP
	4-AMINOPYRIDINE	AVITROL CORP		SUBACUTE	DOG/SWINE	I	NA	NO RESP