



ONTARIO GUIDELINES FOR CLASSIFICATION OF PESTICIDE PRODUCTS

PESTICIDES ADVISORY COMMITTEE

November, 1984

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Ontario

Ministry
of the
Environment

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Minister

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Deputy Minister

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ONTARIO GUIDELINES FOR
CLASSIFICATION OF PESTICIDES PRODUCTS

INTRODUCTION

Under the authority of the Pesticides Act, Revised Statutes of Ontario, 1980 and Regulation 751 administered by the Ministry of the Environment, all pesticide products sold in the Province of Ontario must be classified and assigned a schedule, and subsequent marketing of each product must be in accordance with the regulations relating to the classification. Six schedules exist and are described herein.

A function of the Pesticides Advisory Committee is to classify each product. The resulting classification, when published in the Ontario Gazette, becomes an amendment to the regulations under the Pesticides Act.

DEFINITION

Pesticides are defined in the Pesticides Act and include products registered under the federal Pest Control Products Act, and fertilizer-pesticide products registered under the federal Fertilizer Act. The Ontario classification takes into consideration the marketable formulation when considering toxicity, but the active ingredient when considering persistence and movement potential of parent compounds and/or their metabolites. Specific use patterns relating to environmental impact or to the humaneness of pest animal control are also considered.

CLASSIFICATION PROCEDURE

All applications for classification must be submitted to the Chairman, Ontario Pesticides Advisory Committee, Ministry of the Environment, Suite 100, 135 St. Clair Avenue West, Toronto, Ontario M4V 1P5.

Information required for classification purposes is described on pages 9-11.

SCHEDULES DESCRIBED

Schedules 1 and 5

Schedule 1 pesticides are restricted and can only be used under the authority of a specific use permit. Schedule 5 pesticides are limited to application on agricultural land. Sales of both Schedule 1 and Schedule 5 pesticides are permitted only through wholesale vendors and holders of Class 1 retail vendor licences. A record must be kept of each sale.

The criteria for defining Schedule 1 include:

- 1) pesticides that pose a serious hazard to public health and/or the natural environment.
- 2) Toxicity ratings as described in Column 1 of Table 1 on page 5.
- 3) pesticides that are persistent and/or give rise to persistent metabolites that produce undesirable side effects on nontarget organisms either by acute or chronic toxicity.
- 4) pesticides which through their mode of action may inflict unnecessary suffering to pest vertebrate animals.

Criterion for defining Schedule 5

pesticides normally in Schedule 1 but which are essential for the protection of agricultural crops and for which suitable substitutes do not exist.

Schedule 2

Pesticides and/or pesticide formulations in this group are restricted to agriculturalists, licensed exterminators and registered custom sprayers. Sales are permitted through wholesale vendors and holders of Class 1 and Class 2 retail vendor licences. Sales records must be kept.

The criteria for defining Schedule 2 include:

- 1) pesticides that could pose a hazard but are considered suitable for use by the experienced professional applicators if used according to recommended procedure.
- 2) Toxicity ratings as described in Column 2 of Table 1 on page 5.
- 3) organic pesticides that do not present problems of long term persistence or accumulation in biological tissues, and those inorganic pesticides that may present a degree of hazard to the environment.

Schedule 3

Pesticides and/or pesticide formulations in Schedule 3 may be made available for domestic purposes as the hazards accompanying their use are considered minimal. Sale of Schedule 3 pesticide products is restricted to wholesale vendors and holders of Class 1, Class 2 or Class 3 retail vendor licences. Sales records are not required.

The criteria for defining Schedule 3 include:

- 1) pesticides or dispersants should pose minimal hazards to the environment or to public health if used according to recommended procedure.
- 2) toxicity ratings as described in Column 3 of Table 1 on page 5.
- 3) organic pesticides that are short-lived and do not produce either persistent or toxic metabolites.
- 4) those inorganic pesticides that present a minimal environmental hazard.
- 5) product residues should not pose a problem when 'empty' containers are disposed of in municipal garbage.

Schedule 4 and 6

Schedule 4

Pesticides and/or pesticide formulations in this group are those that can safely be handled by any type of outlet and would be available for sale in food handling establishments. Wholesalers are required to have at the least a limited wholesale vendor licence but no vending licence is required at the retail level.

The criteria for defining this group include:

- 1) pesticide formulations that can be considered relatively innocuous to humans. This includes compounds that are currently available for non-pesticide uses, or are used as insect or animal repellents classified as "Domestic" under the federal Pest Control Products Act, or are pesticides formulated in very low concentrations.
- 2) toxicity ratings as described in Column 4 of Table 1 on page 5. Products for which the LD₅₀ values are less than 5000 mg/kg but greater than 2500 mg/kg may be accepted if additional product toxicological data are presented.
- 3) pesticides that are of no known hazard to the environment or to domestic pets.
- 4) all products must carry a federally approved "Domestic" label.
- 5) maximum package content must not exceed 1 kilogram by weight or 1 litre by volume, and all containers must be physically inspected and approved by the Pesticides Advisory Committee after acceptance of the active ingredients as Schedule 4 candidates. (See packaging guidelines, pages 7 & 8.)

Schedule 6

Pesticide products assigned to this group are identical to those in Schedule 4 but there is no limit to package size and the products may also be designated for commercial use. Sale of Schedule 6 pesticide products may be sold by wholesale vendors, limited wholesale vendors and holders of Class 1, Class 2, or Class 3 retail vendor licences.

GUIDELINES FOR ORAL, DERMAL AND INHALATION TOXICITY EVALUATION

TABLE 1

	Schedules 1 and 5	Schedules 2	Schedules 3	Schedules 4 and 6
Acute Oral LD ₅₀ (single dose-mg/kg) 1)	0-50	50-500	500-5000	over 5000 (1)
Acute Dermal LD ₅₀ single dose-mg/kg)	0-100	100-1000	1000 -10000	over 10000
Acute Inhalation LC ₅₀ (continuous for 8 hours - mg/L air)	0-2	0-20	20-200	over 200

- (1) an LD₅₀ of ≥ 2500 may be accepted for a schedule 4 or 6 candidate product if individual product toxicological data are provided.

Test Animals for toxicological data in order of preference:

- (a) primates
- (b) dogs and cats
- (c) rodents
- (d) fish and birds

Classification will be based on lowest valid toxicity values. Other effects considered - carcinogenesis, teratogenesis, mutagenesis and chronic toxicity.

CRITERIA FOR CLASSIFYING FERTILIZERS CONTAINING PESTICIDES

Fertilizers containing one pesticide active ingredient

Fertilizers containing only one pesticide active ingredient will be classified according to the classification for that active ingredient.

Fertilizers containing more than one pesticide active ingredient

- a) Except as described in (b) below, fertilizers containing two or more pesticide active ingredients will not be accepted for normal classification and will be classified under Schedule 1.
- b) Fertilizers containing two or more herbicides that are complementary for the control of a similar group of weeds will be classified according to the total percentage of all active ingredients present, e.g. 2,4-D, mecoprop, dicamba for broad leaf weed control in turf grass.

CLASSIFICATION CRITERIA FOR CONTROL PRODUCTS CLASSIFIED "RESTRICTED" UNDER THE PEST CONTROL PRODUCTS ACT

Where a pesticide product is submitted for classification under the Pesticides Act, and contains an active ingredient or a mixture of active ingredients acceptable under Schedule 3 or 6 but carries a federal label exclusively "Restricted" under The PCP Act, that product will be classified in a schedule no less restrictive than Schedule 2. The criteria for Schedules 1, 2 and 5 will be followed when classifying all other exclusively "Restricted" control products.

REVIEW OF PREVIOUSLY CLASSIFIED ACTIVE INGREDIENTS AND/OR PREVIOUSLY CLASSIFIED PESTICIDE PRODUCTS

Active ingredients are reviewed from time to time as additional technical data become available. Reclassification to a more restrictive or a less restrictive schedule may result, or the compound may remain in its original schedule. If, in the Committee's opinion, a more restrictive classification is deemed necessary, Registrants will be invited to appear before the Committee for discussion and clarification.

Where a Registrant desires a product review for the purpose of reclassification to a less restrictive category, a submission must be provided in writing, accompanied by supportive documents.

PACKAGING GUIDELINES: SCHEDULE 4 PESTICIDE PRODUCTS ONLY

1. INITIAL QUALIFICATION

All products must carry a federally approved "Domestic" label, and must meet Schedule 4 active ingredient classification guidelines.

2. MAXIMUM CONTENT

Maximum package content must not exceed 1 kilogram by weight or 1 litre by volume, and all containers must be submitted to the Pesticides Advisory Committee for physical inspection and approval.

3. SHAKER OR SIFTER CAN DISPENSERS

All shaker-can dispensers used in packaging pesticide products must have an approved device for reclosure. Formulators are invited to discuss those approved devices with the Committee. In some cases, a simple plastic cap, similar to that used on coffee cans, may be sufficient.

4. PRESSURIZED DISPENSERS

Every pressurized spray dispenser used in packaging pesticide products must have a cap, locking device or seal, so as to prevent accidental activation during transit, storage and display.

5. FOLDING PAPER BOARD CARTONS

Folding paper-board cartons may be approved when the product, if formulated as a granule, impregnated fabric, pellet, powder, particulate (e.g. rodent bait), solid, slow-release generator, tablet or wettable powder, is packaged in an acceptable inner liner (e.g. plastic or foil liner).

6. PLASTIC BAGS OR POUCHES

Plastic bags or pouches used to package rodent baits must be sufficiently strong to prevent accidental spillage during transit, storage and display, and must be packaged in an outer display carton. Individual bags or pouches, or those which, in the opinion of the Committee, could be easily torn, will not be approved.

7. GLASS BOTTLES

Glass bottles shall not be used for packaging Schedule 4 pesticides if, in the opinion of the Committee, such containers can be easily shattered or broken during transit, storage and display.

8. PAPER BAGS

No paper bags will be allowed in Schedule 4.

Cont'd.....

PACKAGING GUIDELINES (Cont'd.)

9. OTHER LIMITATIONS

Where, in the opinion of the Committee, a pesticide container can be mistaken for a food or toy container, the product will not be permitted in Schedule 4.

All labels must contain suitable guidance for the general public and must not be misleading.

10. APPROVAL OF NON-CONFORMING CONTAINERS

The Committee may approve non-conforming containers that, in its opinion, warrant special consideration due to the type of product or method of application of that product.

Registrants are encouraged to discuss with the Committee any packaging improvements they may make in order to conform with these requirements.

11. TRANSFER TO SCHEDULE 6

Domestic products containing only Schedule 4 active ingredients, but not meeting the packaging requirements, will be classified under Schedule 6.

**INFORMATION REQUIRED FOR PESTICIDES CONTAINING NEW
OR PREVIOUSLY UNCLASSIFIED ACTIVE INGREDIENTS (see Appendix I)**

A. General

1. Technical data sheet
2. Seven copies of federally approved label
3. Suitable method of analysis for residues of pesticide in environmental and biological samples.

B. Use Precautions if not Described on Technical Data Sheet

1. Flammability
2. Corrosiveness
3. Storage stability
4. Safety precautions for handling and application
5. Decontamination and disposal
6. Emergency procedure for accidental contamination

C. Container

1. Type and size of containers
2. If classification in Schedule 4 is requested, a sample of an empty container complete with closures and labels must be provided (see Schedule 4 packaging guidelines on pages 7 & 8).

D. Registration Information

1. Registration status (full or temporary)
2. P.C.P. classification (restricted, commercial or domestic)
3. Maximum Residue Limits

E. Toxicology

1. Technical material: acute oral, dermal, and inhalation toxicity, subacute toxicity, teratogenicity, carcinogenicity, mutagenicity and other in vitro short term studies. Include the dose response slope from which the oral LD₅₀ is derived.
2. Formulated material: acute oral, dermal and inhalation toxicity.

F. Environmental and Other Hazards

1. Information on persistence and movement of the pesticide in soil, water and air, and the metabolism of the compound in plants and animals.

Cont/...

G. Other Ingredients

1. The Committee reserves the right to request information or data on carriers, solvents, inert materials, propellents, impurities and other ingredients.

H. Source

1. Information prepared by: Name and address of manufacturer preparing data and date of submission.

I. Options

1. If a Report of New Registration (RNR) has been issued by Agriculture Canada, items listed in the RNR need not be submitted by the registrant.
2. If registration is pending but close to completion, and the registrant wishes to initiate the classification process, copies of the proposed label text may be submitted to be followed upon registration by approved labels (See item A.2).

- J. The Committee reserves the right to request additional data on the toxicology of the active ingredient/s or other constituents in the product.

**INFORMATION REQUIRED FOR CLASSIFICATION OF NEW PESTICIDE PRODUCTS
CONTAINING PREVIOUSLY CLASSIFIED ACTIVE INGREDIENTS (See Appendix I)**

- A. Seven copies of federally approved label.
- B. Registration status (full or temporary).
- C. Type and size of containers.
- D. If the product(s) is a candidate for Schedule 4 (Domestic classification with no controls) and the acute oral LD₅₀ is greater than 2,500mg/kg but less than 5,000mg/kg individual product toxicological data must be provided. These data should include the LD₅₀ and the slope of the dose response curve from which it is derived. As an alternative, evidence of non-morbidity in experimental animals given an oral dose of 500 mg/Kg may be presented. Should this latter option, which is in the interests of humane treatment of test animals, be chosen, a test protocol is available from the offices of the Pesticides Advisory Committee.
- E. Container approval is required for all Schedule 4 products. An empty container complete with closure and label must be submitted. (See Schedule 4 packaging guidelines on pages 7 & 8.)
- F. The Committee reserves the right to request additional data on the toxicology of the active ingredient/s or other constituents in the product.

**INFORMATION REQUIRED FOR CLASSIFICATION OF FERTILIZER-PESTICIDE
PRODUCTS CONTAINING PREVIOUSLY CLASSIFIED ACTIVE PESTICIDE INGREDIENTS***
(See Appendix)

- A. One copy of application for federal registration under the Fertilizer Act.
- B. Seven typewritten copies of federally approved label text. (Please do not send fertilizer bags.)
- C. Fertilizer registration number.
- D. Type and size of packaging.
- E. The Committee reserves the right to request additional data on the toxicology of the pesticide active ingredient/s or other constituents in the product.

ADDITIONAL INFORMATION

Section 6 of the Pesticides Act states:

"Unless exempt by the regulations, no person shall sell, offer to sell or transfer any pesticide unless the pesticide is classified by the regulations and except under and in accordance with a licence that shall be for such class and in respect of each premises on, in or from which the pesticide is or will be sold, offered for sale or transferred. R.S.O. 1980, c,376, s.6."

It is in the Registrant's interest to submit all new products for classification as early as possible following federal registration under the P.C.P. Act. Failure to do so will delay the marketing of the product in Ontario.

Additional information on classification can be obtained from the Ontario Pesticides Advisory Committee, 9th Floor, 1 St. Clair Avenue West, Toronto, (Postal address, Suite 100, 135 St. Clair Ave. West, Toronto, M4V 1P5,) telephone (416) 965-7048.

Enquiries concerning marketing and use, and requests for copies of the Pesticides Act, Revised Statutes of Ontario, 1980 and Regulation 751 should be directed to the Commercial and Agricultural Chemicals Section, Ministry of the Environment, 7th Floor, 40 St. Clair Avenue West, Toronto, Ontario, telephone 965-2401.

CLASSIFICATION OF IBT* SUPPORTED COMPOUNDS

The suggested classification of active ingredients appears in the Appendix I (pages 13-31). Registrants are advised that certain compounds having IBT involvement, and against which data gaps still exist, may be classified in a more restrictive schedule than that indicated. For further information please contact the Committee Chairman.

*Industrial Biotest Laboratories

A P P E N D I X I

ONTARIO CLASSIFICATION OF PESTICIDE ACTIVE INGREDIENTS

Revised November 1984

SYMBOLS

- * Schedule 5 - Agriculturist Use Permit Exemption
- + Subject to Container Approval, Otherwise Schedule 6
- ** With Fire Retardant
- # Granular - Not for Broadcast Application
- ## Annual Use Permit and Records of Location, Rates and Amounts Used
- x Approved Animal Collar
- xSR Approved Animal Collar. Slow Release Generator
- xx Approved Resin Strip or Paraffin Block
- M Manufacturing purposes only.

ACA Acaricides and INS Insecticides

CODE	COMMON OR CHEMICAL NAME (BRAND)		SCH.4+or			
			SCH.1	SCH.2	SCH.3	SCH.6
ABT	temephos (Abate)	(Abate)			all	
ACP	acephate	(Orthene)		>40%	=<40%	
ADC	aldicarb	(Temik)	all*			
ALD	aldrin		all			
ALM	d-trans allethrin				>10%	=<10%
ALP	aluminum phosphide	(Phostoxin)	all*			
AMC	aminocarb	(Matacil)	>12%*	=<12%		
BAY	propoxur	(Baygon)		>20%	=<20%	=< 1%
BAY	propoxur Approved Ant Trap					=< 2%
BAY	propoxur					xSR
BDC	bendiocarb	(Ficam)	>80%	=<80%	=<10%	
BDC	bendiocarb Approved Ant Trap					=< 1%
BNS	borax				>70%	=<70%
BOA	boric acid				>70%	=<70%
BPC	dienochlor	(Pentac)			all	
BRO	bromophos	(Nexion)			all	
BTB	Bacillus thuringiensis	(Dipel)			all	
BZE	benzene				all	
CAB	carbaryl	(Sevin)		>80%	=<80%	=<8%
CAB	carbaryl					xSR
CAD	carbon disulfide			all		
CAF	carbofuran	(Furadan)	>10%*	=<10%#		
CFV	chlorfenvinphos	(Birlane)	>20%*	=<20%		
CIN	crotoxyphos	(Ciodrin)		>20%	=<20%	
CLD	chlordan			>50%	=<50%	
COA	coal tar acids					all
COO	coal tar oils					all
COU	coumaphos	(Co-Ral)		>0.5%	=<0.5%	

ACA Acaricides and INS Insecticides (Con't.)

CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.4+or			
		SCH.1	SCH.2	SCH.3	SCH.6
COY	terbufos (Counter)	>2.5%*	=<2.5%		
CPN	chloropicrin	> 20%	=< 20%		
CPT	carbophenothion (Trithion)	> 60%*	=< 60%		
CTC	carbon tetrachloride		all		
CYM	cypemethrin (Rip-cord)		> 15%	=<15%	
DCF	dicofol (Kelthane)		> 4%	=< 4%	
DDT	DDT	all			
DEL	deltamethrin (Decis)	all*			
DEM	demeton (Systox)	all*			
DFB	diflubenzuron (Dimilin)			>10%	=<10%
DIA	diazinon		>20%	=<20%	=< 1%
DIA	diazinon granular or dust				=< 2%
DIE	dieldrin	all			
DIM	dimethoate (Cygon)		>40%	=<40%	
DIN	dinocap (Dikar)		>10%	=<10%	=< 1%
DIS	disulfoton (Dy-Syston)	> 5%*	=< 5%		
DIX	dioxacarb		>20%	=<20%	=< 2%
DNC	dinitrocresol sodium salt (Elgetol)		>10%	=<10%	
DPA	diphenylamine (No-Scald)		all		
DUB	chlorpyrifos (Dursban) (Lorsban)		>25%	=<25%	=< 1%
DVP	dichlorvos and related actives (Vapona)		>15%	=<15%	xSR
DYF	fonofos (Dyfonate)	>10%*	=<10%		
EDB	ethylene dibromide		>20%	<20%	
EDC	ethylene dichloride			all	
END	endrin	all			
ESF	endosulfan (Thiodan)		> 6%	=< 6%	
ETH	ethion		> 5%	=< 5%	
ETO	ethylene oxide		all		

ACA Acaricides and INS Insecticides (Con't)

CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.1	SCH.2	SCH.3	SCH.4+or	
					SCH.6	
FEL	fensulfothion (Dasanit)	>15%*	=<15%			
FBT	fenbutatin oxide (Vendex)					
FEM	fenitrothion (Sumithion)		>50%	=<50%		
FET	fenthion (Baytex)		> 5%	=< 5%		=< 1%
FEV	fenvalerate (Belmark)		all	=< 8%		
				S.R.		
FOM	formetanate hydrochloride (Carzol)	>50%*	=<50%			
GAR	tetrachlorvinphos (Gardona)			all		xSR
GOO	azinthos-methyl (Guthion)	>20%*	=<20%			
GUM	natural gum resins					
HCN	hydrogen cyanide (HCN)	all				
HEP	heptachlor	all				
IOJ	iodofenphos (Novanol N)			all		
ISR	isophenphos (Amaze)	>50%*	=<50%	=< 5%		
KDC	potassium dichromate		>10%	=<10%		
LAR	lead arsenate	>20%*	=<20%			
LIN	lindane (Lindane)	>75%	=<75%	=< 5%		
MAL	malathion		>65%	=<65%		=<10%
MBR	methyl bromide (Dowfume)	all				
MED	methidathion (Supracide)	>25%*	=<25%	=<2.5%		
MEN	menazon (Sayfos)		>7.4%	=<7.4%		
MET	methoxychlor (Marlate)			> 5%		=< 5%
MEV	mevinphos alpha isomer (Phosdrin)	all*				
MGK	n-octyl bicycloheptene dicarboximide (MGK)			> 5%		=< 5%
MHB	methiocarb (Mesurol)	>3%		=< 3%		
MIS	methyl isothiocyanate (Vorlex)		>50%	=<50%		
MIT	(Mitin FF)			all		
MML	methomyl (Lannate)	>30%*	=<30%	=< 3%		

ACA Acaricides and INS Insecticides

CODE	COMMON OR CHEMICAL NAME (BRAND)		SCH.4+or			
			SCH.1	SCH.2	SCH.3	SCH.6
MOI	mineral oil	(Dormant Oil)				all
MOM	methamidophos	(Monitor)	>15%*	=<15%	=<0.5%	
MOR	(Morestan)				all	
MPR	methoprene	(Altosid)		all		
MTM	metam sodium	(Vapam)			all	
NAL	naled	(Dibrom)		>50%	=<50%	=<10%
NEO	tetramethrin				>10%	=<10%
NIA	nicotine			> 4%	=< 4%	
ODM	oxydemeton-methyl	(Metasystox)		>10%	=<10%	
OMI	propargite	(Omite)			all	
OXA	oxamyl	(Vydate)	=>10%*	<10%	=< 3%	
PBU	piperonyl butoxide	(Synergist)				all
PCP	pentachlorophenol			>20%	=<20%	=<0.1%
PDB	paradichlorobenzene	(Moth-Killer)				all
PFL	permethrin	(Ambush)			all	
PHG	d-phenothrin					all
PHR	phorate	(Thimet)	>15%*	=<15%		
PHS	phosalone	(Zolone)		>25%	=<25%	
PIR	pirimicarb			>20%	=<20%	
PLT	cyhexatin	(Plictran)		>50%	=<50%	
PRT	phosmet	(Imidan)		>50%	=<50%	
PTH	parathion		all*			
PYR	pyrethrins				> 1%	=< 1%
PYR	pyrethrins metered aerosol commercial				> 2%	=< 2%
REZ	resmethrin				>10%	=<10%
RON	ronnel				> 5%	=< 5%
ROT	rotenone			> 5%	=< 5%	=< 2%
RUE	crufomate	(Ruelene)			all	

ACA Acaricides and INS Insecticides (Con't)

CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.4+or			
		SCH.1	SCH.2	SCH.3	SCH.6
SFD	sulfoxide synergist				all
SFL	sodium fluoride	>15%	=<15%		
SFT	sulfotep	>10%*	=<10%		
SIO	silicon dioxide				all
SNP	dimetilan (Snip)	[	285mg per 30.5 cm		
SOA	soap-insecticidal				all
SUL	sulphur				all
SUS	sulphide sulphur (Lime sulphur)			all	
TED	tetradifon (Tedion)			all	
THA	isobormyl thiocyanacetate			> 2%	=< 2%
TOX	toxaphene (Hog-Mange Cure)	all			
TRI	trichlorfon (Dylox)			all	
TRN	z-9-tricosene				all
WAX	famphur (Warbex)				

FUN Fungicides

AAL	allyl alcohol (AA Soil Drench)		all		
ASP	asphalt solids (Pruning Paint)				all
AUR	auramine			all	
BML	benomyl (Benlate)			all	
BNS	borax			>70%	=<70%
CAP	captan		>10%	=<10%	
CDD	cadmium chloride (Cady)		all		
CDS	cadimur sebacate		all		
CNB	chloroneb (Tersan)			all	
CPN	chloropicrin	>20%	=<20%		
CRG	m-cresol (Gallex)		>50%	=<50%	

FUN Fungicides (Con't)

		SCH.4+or			
CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.1	SCH.2	SCH.3	SCH.6
CUB	copper as tribasic copper sulphate			all	
CUS	copper sulphate			all	
CUY	copper oxychloride			all	
CUZ	copper as cupric hydroxide		>30%	=<30%	
CYC	cycloheximide (Acti-Dione)		>0.75%	=<0.75%	
DAZ	dazomet (Mylone)		>35%	=<35%	
DCH	dichlone (Phygon)			all	
DEX	fenaminosulf (Lesan)		>10%	=<10%	
DFT	captafol (Difolatan)		all		
DIK	dichloran (Botran)			all	
DIN	dinocap (Dikar)		>10%	=<10%	
DNC	dinitrocresol (Elgitol)		>10%	=<10%	
DOD	dodine (Cyprex)			all	
DOM	dodemorph-acetate (Meltatox)			all	
DPA	diphenylamine (No-scald)				
DSF	chlorinated C ₃ hydrocarbons (DD., Telone, Vidden)		>50%	=<50%	
DYR	anilazine (Dyrene)		>50%	=<50%	=< 5%
ETR	ethirimol (Milgo)			>10%	=<10%
ETY	ethoxyquin				
FEH	fentin hydroxide (Du-Ter)	all			
FER	ferbam			all	
FOL	folpet (Phaltan)			> 5%	=< 5%
FOR	formaldehyde			all	

FUN Fungicides (Con't)

		SCH.4+or			
CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.1	SCH.2	SCH.3	SCH.6
GLY	glyodin (Cyprex)			all	
IPD	iprodione (Rovral)			all	
KCR	potassium chromate		>15%	=<15%	
MAG	malachite green		>10%	=<10%	
MAN	maneb (Manzate)			all	
MBD	carbendazim-phosphate (Lignasan)			all	
MBR	methyl bromide (Dow-fume)	all			
MCC	mercuric chloride		all		
MCZ	mancozeb			all	
MOI	mineral oil				all
MOR	(Morestan)			all	
MSC	mercurous chloride		all		
MTA	metalaxyl (Ridomil)		all		
MTM	metam sodium (Vapam)			all	
MTR	metiram (Polyram)			all	
NAB	nabam		all		
OXT	oxytetracycline hydrochloride (Terramycin R)	all*			
PFH	paraformaldehyde		all		
PMA	phenyl mercuric acetate (PMAS)		all		
POI	pine oil				all
PTX	oxycarboxin (Arrest)		> 5%	=< 5%	
QTZ	quintozene			all	

FUN Fungicides (Con't)

CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.1	SCH.2	SCH.3	SCH.4+or SCH.6
STN	streptomycin (Agri-Mycin)			all	all
SUL	sulphur				
SUS	sulphide sulphur (lime sulphur)			all	
TET	chlorothalonil (Daconil)			all	all
THI	thiram		>50%	=<50%	
TPM	thiophanate-methyl (Easout)			>50%	
TRB	etridiazole (Truban)			>40%	
TRR	triforine (Funginex)				
TZL	thiabendazole (Mertect)			all	
VIT	carbathiin (Vitavax)			all	
XAY	2,4-xyleneol (Gallex)			all	
ZIN	zineb			> 5%	=< 5%
ZIR	ziram			all	

WPS Wood Preservatives

CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.4+or			
		SCH.1	SCH.2	SCH.3	SCH.6
ALD	aldrin	all			
ANH	anthracene oil (Carbolineum)				all
BNA	borax anhydrous (sod. tetraborate)				
BNS	borax			>70%	=<70%
BTO	bis-(tri-n-butyltin) oxide		>10%	=<10%	
CLD	chlordane		>50%	=<50%	
COA	coal tar acids				
CPN	chloropicrin	>20%	=<20%		
CRO	chromic acid	all			
CRT	creosote			all	
CUN	copper naphthenate			> 3%	=< 3%
CUO	copper oxide			all	
CUS	copper sulphate			all	
CUQ	copper-8-quinolinolate		>10%	=<10%	=< 1%
DCA	dichlofluanid (Cuprinol)				=< 1%
DNP	dinitrophenol		>10%	=<10%	
IRN	iron from iron naphthenate				
PCP	pentachlorophenol		>20%	=<20%	=<0.1%
PML	phenyl mercuric lactate		all		
PMO	phenyl mercuric oleate		all		
SMM	sodium metaborate octahydrate			>50%	=<50%
TCP	tetrachlorophenol		>20%	=<20%	
ZNN	zinc naphthenate			> 3%	=< 3%

VPC Vertebrate Pest Control Products (excluding rodenticides)

CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.1	SCH.2	SCH.3	SCH.4+or
					SCH.6
AMP	4-amino pyridine (Avitrol)		all##		
ANR	antimycin fish toxicant		all		
AOH	ammonia vertebrate repellent				
AZA	(Ornitrol) bird chemosterilant		all		
BAS	niclosamide (Bayluscide)		all		
BON	bone oil animal repellent			all	
CAS	capsaicin animal repellent				all
FET	fenthion bird repellent		all		
MNK	methyl nonyl ketone dog and cat repellent				all
MUS	mustard oil				all
NIA	nicotine animal repellent		> 4%	=< 4%	
NPH	naphthalene animal repellent				all
OAL	oil of lemon grass				all
PDB	paradichlorobenzene animal repellent				all
PMB	polymerized butenes				all
ROT	rotenone fish toxicant	all			
SOA	soap repellent				all
STR	strychnine as alkaloid or sulphate	>0.5%	=<0.5%		
TFM	lampreycide		all		
THI	thiram animal repellent		>50%	=<50%	

ROD Rodenticides

CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.4+or			
		SCH.1	SCH.2	SCH.3	SCH.6
ALP	aluminum phosphide (Phostoxin)	all*			
ALS	alphachloralose		all		
BRF	brodifacoum (Talon)	>0.005%	=<0.005%		
BRM	bromadiolone (Bromone)	> 5%	=< 5%	=<0.5%	=<0.05%
CHP	chlorophacinone (Rozol)	> 5%	=< 5%	=<0.5%	=<0.05%
CPD	3 chloro-1,2 propanediol (Epibloc)				
CPN	chloropicrin	>20%	=<20%		
DPC	diphacinone (Ramik)		> 1%	=< 1%	=<0.01%
EGO	ergocalciferol (Sorex)	>10%	=<10%	=< 1%	=<0.1%
FUM	fumarin		>40%	=<40%	=<14%
HCN	hydrogen cyanide (HCN)	all			
MBR	methyl bromide (Dow-fume)	all			
PIN	pindone	>5%	=< 5%	=<0.5%	=<0.05%
RSQ	red squill	all			
SOE	gaseous oxides of sulphur				
SQS	sulfaquinoxaline	> 5%	=< 5%	=<0.5%	=<0.05%
STR	strychnine as alkaloid or sulphate	>0.5%	=<0.5%		
SUF	sodium monofluoroacetate (1080)	all			
WAR	warfarin	> 5%	=< 5%	=<0.5%	=<0.05%
ZNP	zinc phosphide	>10%	<10%		

HER Herbicides

						SCH.4+or
CODE	COMMON OR CHEMICAL NAME (BRAND)		SCH.1	SCH.2	SCH.3	SCH.6
AAL	allyl alcohol	(AA Soil Drench)		all		
ACA	acifluorfen	(Blazer)	all			
ACL	acrolein		all			
ALA	alachlor	(Lasso)		all		
ALL	allidochlor	(Randox)	all			
AMA	ammonium methyl arsonates				all	
AMI	amitrole				all	
AMS	ammonium sulfamate				>10%	=<10%
ASM	asulam	(Asulox F)			all	
ATR	atrazine			>15%	=<15%	
AVG	difensoquat	(Avenge)		>70%	=<70%	
AZP	aziprotryn				all	
BAL	benfluralin	(Balan)			all	
BAR	barban	(Carbyne)		all		
BAX	metribuzin	(Sencor)		all		
BBU	bromacil	(Hyvar)		>15%	=<15%	
BDX	cyanazine	(Bladex)(Blagal)		all		
BEN	benazolin	(Benazolin)			all	
BET	bensulide	(Betasan)			> 7%	=< 7%
BNP	borax pentahydrate				>50%	=<50%
BNS	borax				>70%	=<70%
BRY	bromoxynil	(Torch. Pardner)		all		
BTL	desmedipham				all	
BZN	bentazon	(Basagran)		>80%	=<80%	
BZP	benzoylprop-ethyl	(Endaven)			all	

HER Herbicides (con't)

CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.1	SCH.2	SCH.3	SCH.4+or SCH.6
CBU	chlorbromuron	all			
CHA	chloramben (Amiben)			all	
CHL	chlorthal dimethyl (Dacthal)			> 7%	=< 7%
CIP	chlorpropham (CIPC)		all		
CLX	chloroxuron (Tenoran)			all	
CPN	chloropicrin	>20%	=<20%		
CSL	chlorsulfuron (Glean)				
CUM	copper sulphate (Bluestone)		>30%	=<30%	
CUT	cutrine		all		
DAL	dalapon (Dowpon, Basfapon)			all	
DAZ	dazomet (Mylone)		>35%	=<35%	
DCB	dichlobenil			all	
DIC	dicamba (Banvel)		> 3%	=< 3%	
DIG	dichlorprop amine (2,4-DP)			> 6%	=< 6%
DIH	dichlorprop LV esters		all		
DIH	dichlorprop HV esters	all			
DIP	diphenamid (Enide)		>50%	=<50%	
DIQ	diquat (Reglone)		>25%	=<25%	
DNA	dinitramine (Cobex)	all			
DNB	dinoseb (Sinox)		>10%	=<10%	
DPB	2,4-DB butyl ester (Embutox)		all		
DPP	dichlofop-methyl (Hoe-Grass)			>10%	=<10%
DUR	diuron (Karmex)		>15%	=<15%	
DXA]					
DXB]-	2,4-D acids, amines and salts	all(M		> 6%	=< 6%
DXS]					
DXE	2,4-D H.V. esters	all			

HER Herbicides (Con't)

CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.1	SCH.2	SCH.3	SCH.4+or SCH.6
DXF]	2,4-D L.V. esters		all		
DXG]					
ENT	endothal		all		
EPT	eptam (EPTC)			all	
ERB	erbon			all	
FES	ferrous sulphate	all			all
FLA	flamprop-methyl (Metaven)			all	
FLZ	fluazifop-butyl (Fusilade)			all	
FNC	chlorfenac			all	
FNP	fenoprop salts and amines			all##	
FNP	fenoprop H.V. esters (Silvex)		all		
FNP	fenoprop L.V. esters		all##		
GPS	glyphosate (Roundup)			>50%	=<50%
HCY	hydrogen cyanamide		all		
IOX	ioxynil (Totril)		>14%	=<14%	
KRB	propyzamide (Kerb)			all	
KRE	fosamine ammonium (Krenite)			all	
LUN	linuron (Lorox)			all	

HER Herbicides (Con't.)

CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.4+or			
		SCH.1	SCH.2	SCH.3	SCH.6
MAB]	MCPA amines and salts	all(M)		all	
MAS]					
MAE	[MCPA H.V. esters	all			
MAE	[MCPA L.V. esters	all(M)	all		
MBR	methyl bromide	all			
MBS	MCPB salts (Tropotox)			all	
MEC	mecoprop salts (Compitox)			> 6%	=< 6%
MIS	methyl isothiocyanate (Vorlex)		>50%	=<50%	
MOH	mineral oil-herbicidal				all
MOL	monolinuron (Afesin)			all	
MON	monuron		>15%	=<15%	
MOO	monuron - TCA		all		
MSM	monosodium methane arsonate			all	
MTB	metobromuron (Patoran)		all		
MTL	metolachlor (Dual)		all		
MTM	metam-sodium (Vapan)			all	
NAP	naptalam (Alanap)			all	
PAQ	paraquat (Gramoxone)		> 3%	=< 3%	
PCP	pentachlorophenol	all			
PEB	pebulate (Tillam)			all	
PIC	picloram amines or salts (Tordon)		all##		
PMP	phenmedipham (Betanal)			all	

HER Herbicides (Con't.)

CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.1	SCH.2	SCH.3	SCH.4+or SCH.6
PRF	propham		all		
PRL	propanil (Stampede)			all	
PRM	prometone		>15%	=<15%	
PRO	prometryne (Gesagard)		>15%	=<15%	
PRP	propachlor (Ramrod)			all	
PYZ	pyrazon (Pyramin)			all	
ROE	cycloate (Ro-Neet)			all	
SCL	sodium chlorate mixtures		all	all**	
SOD	sethoxydim (Poast)			all	
SID	siduron (Tupersan)			> 7%	=< 7%
SLN	solan			all	
SMM	sodium metaborate octahydrate			>50%	=<50%
SMT	sodium metaborate tetrahydrate			>50%	=<50%
SMZ	simazine		>15%	=<15%	
SPC	sodium pentachlorophenate				
SUA	sulfallate (Vegadex)			all	
SUT	butylate (Sutan)			all	
TBA	trichlorobenzoic acid (TBA)		all		
TBT	terbutryn]		all		
TBZ	terbuthylazine] (Topoguard)		all		
TCS	trichloroacetic acid (TCA)			all	
TEB	tebuthiuron (Spike)		>15%	=<15%	
TER	terbacil (Sinbar)		all		
TRF	trifluralin (Treflan)			all	

HER Herbicides (Con't)

CODE	COMMON OR CHEMICAL NAME (BRAND)	SCH.4+or			
		SCH.1	SCH.2	SCH.3	SCH.6
TRL	triallate (Avadex BW)		all		
TXB	2,4,5-T amine			all##	
TXE	2,4,5-T H.V. esters	all			
TXF	2,4,5-T L.V. esters		all##		
VER	vernolate (Vernam)			all	
VPR	hexazinone (Velpar)		all		
WAT	water soluble dyes				
	mixtures of				
	2,4-D]				
	mecoprop] amines				
	dichlorprop] and salts			> 6%	=< 6%
	plus dicamba			> 3%	=< 3%

IRP (Insect Repellents)

BPG	butoxypolypropylene glycol (Crag)				all
CAS	capasaicin				all
CIT	oil of citronella				all
DMP	dimethyl phthalate				all
DTU	N,N-diethyl-m-toluamide (Deet)				all
EHX	ethyl hexanediol				all
LAV	oil of lavender				all
MGB	2,3,4,5-bis (2-butylene)				
	tetrahydro-2-furfural (MGK II)				all
MGD	di-n-propyl isosinchomeronate				
	(MGK 326)				all
MGH	2-hydroxyethyl N-octyl sulfide				
	(MGK 874)				all

MISCELLANEOUS COMPOUNDS

CODE	COMMON OR CHEMICAL NAME (BRAND)			SCH.1	SCH.2	SCH.3	SCH.4+or
							SCH.6
ACA	acetic acid					all	
ANC	ancymidol	(A-Rest)	(PGR)			> 6%	=< 6%
AYC	cittowet		(ADJ)			all	
BZA	benzoic acid		(ADJ)		all		
CCC	chlormequat	(Cycocel)	(PGR)	>90%	=<90%	=<10%	
CFM	chlorflurecol	(Maintain)	(PGR)			>25%	=<25%
COC	coconut diethanolamide		(ADJ)				all
CPA	4-chlorophenoxy acetic acid		(PGR)		>10%	=<10%	=< 1%
DAM	daminozide	(B-Nine-Alar)	(PGR)		all		
DFA	dimethyl alkyl		(ADJ)		all		
ETA	1,2-ethanediol		(ADJ)				all
ETF	ethephon	(Ethrel)	(PGR)			>40%	=<40%
FAA]							
FAB]	fatty alcohols		(PGR)			all	
IBA	indole-butyric acid		(PGR)		>10%	=<10%	=< 1%
KPR	kinoprene	(Enstar)	(IGR)			all	
MAH	maleic hydrazide	(MH.30)	(PGR)			all	
MFD	mefluidide	(Embark)	(PGR)	all			
MHY	metaldehyde	(Slug Bait)	(MOL)			all	
NAA	nepthalene acetic acid		(PGR)			all	
NON	nonylphenoxypolyethoxyethanol		(ADJ)		all		
OPE	octylphenoxypolyethoxy ethanol ester		(ADJ)			all	
PAE	primary alcohol ethoxylate		(ADJ)			>30%	=< 30%
PVP	polyvinyl polymer adjuvant		(ADJ)			all	
TMM	trimethylmonyl polyethoxy ethanol		(ADJ)			all	
TOF	tall oil fatty acids		(ADJ)				

E. & O. E., (Errors and Omissions Excepted)

APPENDIX II

Obsolete Active Ingredients Previously Scheduled

<u>CODE</u>	<u>COMMON NAME</u>	<u>PRODUCT TYPE</u>
ACR	acrylonitrile	INS
ANY	antimonyl potassium tartrate	INS
AZK	terbutol (Azak)	HER
AZO	azobenzene	INS
BBE	benzyl benzoate	IRP
BHC	benzene hexachloride	INS
BRL	binapacryl (Morocide)	FUN
BTD	benzothiazyl disulfide	FUN
CAC	cacodylic acid	HER
CAR	calcium arsenate	INS
CBZ	chlorobenzilate	ACA
CDU	cadmium succinate	FUN
CFB	see FUN	ACA
CHD	chlordecone	INS
CHR	chloranil	FUN
CRA	cresylic acid	INS
CUC	copper from copper oxychloride sulfate (COCS)	FUN
CUR	copper from copper salts of rosin and fatty acids	FUN
DCP	dibromochloropropane (DBCP)	NEM
DES	disul sodium	HER
DIF	dichlofenthion	NEM/INS
DMA	disodium methyl arsonate	HER
DMX	dimefox	INS
DNC	dinitrocresol	HER
DNP	dinitrophenol	HER
EMC	ethylmercuric chloride	FUN
EMS	ethylmercury p-toluene sulfonanilide	FUN
FEN	fenuron	HER
FUN	chlorphenamide (Fundal)	ACA
GOP	phosacetim (Gophacide)	ROD
HMC	hydroxymercurichlorophenol	FUN
HMN	hydroxymercurinitrophenol	FUN
KCT	potassium cyanate	HER
LEP	leptophos	INS
LER	lethane	INS
MBM	manganous benzothiozyl mercaptide	FUN
MDD	manganous bis dimethyl dithiocarbamate	FUN
MMA	methylmercuric acetate	FUN
MMB	methyl mercuric benzoate	FUN
MMD	methyl mercuric dicyandiamide	FUN
MMH	ozine methyl mercury	FUN
MMO	methyl mercury pentachlorophenolate	FUN
MMP	methyl mercury 2,3-dihydroxy propyl mercaptide	FUN
MMT	methyl mercury propionate	FUN

Obsolete Active Ingredients Previously Scheduled

<u>CODE</u>	<u>COMMON NAME</u>	<u>PRODUCT TYPE</u>
NEB	neburon	HER
NOB	norbromide	ROD
NYC	tartary octyl mercaptan	ARP
OAN	oil of sassafras	ARP
OUT	outfox	HER
OVX	ovex	INS
PAC	phenyl amino cadmium dilactate	FUN
PBT	piperonyl	ACA
PLA	nitralin (Planavin)	HER
PMF	phenyl mercury formamide	FUN
PMT	phenyl mercury triethanol ammonium lactate	FUN
PTG	parathion methyl	INS
RYA	ryania	INS
SAF	sodium fluoaluminate	INS
SAR	sodium arsenite	HER/INS
STC	sodium tetrachlorophenate	FUN
STT	strychnine nitrate	ROD
TAN	karbutilate (Tandex)	HER
TCH	2,4,5-Trichlorophenol	WPS
TDE	TDE	INS
TEC	technazene	INS
TEP	TEPP	INS
TES	tetradisol	INS
THS	thallium sulphate	ROD
TOK	niclofen	HER
TRC	trichlornate	INS
VAC	(Vacor)	ROD
ZIC	zinc dimethyl dithiocarbamate	ARP
ZPS	zinc petroleum sulfonate	FUN
ZRN	zectran	INS

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