



Material Safety Data Sheet

DRIONE[®] INSECTICIDE

MSDS Number: 62

MSDS Version 1.1

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name DRIONE[®] INSECTICIDE
Chemical Name Mixture; a.i.'s, pyrethrins, piperonyl butoxide
Synonym
MSDS Number 62
Chemical Family
Chemical Formulation
EPA Registration No. 432-992
Canadian Registrat. No.

Aventis
95 Chestnut Ridge Road
Montvale, NJ 07645
USA

☎ For Product Use Information: (800)331-2867 Monday through Friday
8:00AM-4:30PM
For Medical Emergency contact DART: (800) 334-7577 24 Hours/Day
For Transportation Emergency CHEMTREC: (800) 424-9300 24 Hours/Day

Product Use Description Drione Insecticide is a dust that provides quick control of a variety of insects and kills up to 6 months if left undisturbed. For industrial/commercial use only.

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
Pyrethrin	8003-34-7	1.0000	
Piperonyl butoxide	51-03-6	10.0000	
Amorphous silicon dioxide hydrate (Amorphous silica)	112926-00-8	40.0000	
Other ingredients, including:	0-08-8	49.0000	
Isoparaffinic Petroleum Solvent	64742-47-8	49.0000	

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview Causes moderate eye irritation.
This product is toxic to fish.

Physical State solid

Odor Very mild, tea-like odor.

Appearance white to yellow

Immediate Effects
Eye Causes moderate eye irritation.

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Skin	Harmful if absorbed through skin.
Medical Conditions Aggravated by Exposure	None known.
Signs and Symptoms	May cause gastrointestinal effects such as nausea, vomiting and diarrhea. Ingestion of large quantities can result in nervous system effects such as dizziness, loss of coordination, tremors and loss of consciousness. Symptoms usually regress with no long lasting effects.

SECTION 4. FIRST AID MEASURES

Eye	Flush eyes with plenty of water. Call a physician if irritation persists.
Skin	Wash with plenty of soap and water. Get medical attention.
Ingestion	Drink 1 or 2 glasses of water and contact a physician or Poison Control Center immediately
Inhalation	Remove individual to fresh air. Get medical attention if breathing difficulty develops.
Note to Physician	May pose an aspiration pneumonia hazard.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point	88 °C / 190 °F TCC
Suitable Extinguishing Media	Carbon dioxide, dry chemical, foam or water.
Fire Fighting Instructions	<p>As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear. Keep upwind. Isolate hazard area. Avoid inhalation of smoke and fumes. Use water or foam to reduce fumes. Do not touch spilled material. If possible, move containers from area. Extinguish only if flow can be stopped. Use flooding amounts of water as a fog. Cool containers with flooding amounts of water from as far a distance as possible. Avoid breathing vapors.</p> <p>FLAMMABILITY CLASSIFICATION/RATING: NFPA/OSHA Class: IIIA NFPA Rating (Fire): 2</p>
Dust Explosion Class	Not available

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal	Use proper protective equipment to minimize personal exposure (see Section 8). Take all necessary action to prevent and to remedy the adverse effect of the spill. Ensure that the disposal is in compliance with all Federal, State/Provincial, and local regulations (see Section 13 for applicable RCRA Number). Refer to Section 15 for applicable Reportable Quantity (RQ) and other regulatory requirements.
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Land Spill or Leaks

Small Spills: Sweep up carefully while avoiding the formation of a dust cloud. Place in an approved chemical waste container for disposal. Rinse spill area with small amount of soapy water. Contain and absorb the rinsate with inert absorbents and place into the same disposal container. Area can be washed with water to remove the last trace residue. Do not allow water to contaminate water supplies or sewers.

Large Spills: Eliminate all ignition sources. Stop leak if you can do so without coming into contact with spilled material. All equipment used to clean up spill should be grounded. Prevent entry into waterways, sewers, basements or confined areas. Inform appropriate authorities immediately if contamination occurs. Contact Aventis for further assistance if necessary.

SECTION 7. HANDLING AND STORAGE

Handling Procedures

Avoid contact with skin, eyes or clothing.
Containers larger than one pound may not be used in food handling establishments.

Storing Procedures

Do not contaminate water, food or feed by storage.
Store upright at room temperature.
Keep away from moisture.
Containers larger than one pound may not be stored in food handling establishments.
Containers one pound and smaller should be stored in original sealed container in a cool, dry place inaccessible to children and pets.

Work/Hygienic Procedures

Wash thoroughly with soap and water after handling.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Control airborne concentrations below the appropriate exposure guideline (see below for any applicable OSHA/ACGIH Exposure Limits). Local exhaust ventilation may be necessary.

Eye/Face Protection

Wear safety glasses, splash goggles or face shield.

Body Protection

Wear chemical-resistant gloves (Neoprene, Nitrile, PVC) and other protective clothing to avoid skin contact.

Respiratory Protection

Ensure good ventilation. If not adequate, use a chemical cartridge-type respirator approved by the National Institute of Occupational Health and Safety.

General Protection

Eye wash facility and safety shower should be available

Exposure Limits

Pyrethrin	8003-34-7	ACGIH	TWA	5 mg/m ³
		NIOSH	REL	5 mg/m ³
		OSHA Z1	PEL	5 mg/m ³
		OSHA Z1A	TWA	5 mg/m ³
		US CA OEL	TWA PEL	5 mg/m ³
		ACGIH	TWA	10 mg/m ³
Amorphous silicon dioxide hydrate	112926-00-8	ACGIH	TWA	10 mg/m ³

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(Amorphous silica)

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OSHA Z1A TWA

6 mg/m3

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white to yellow
Physical State	solid
Odor	Very mild, tea-like odor.
pH	6 - 8 Normally not mixed with water neutral
Vapor Pressure	Not available
Vapor Density (air = 1)	Not available
Density	Not available
Bulk Density	(SETTLED): 12.2 lb/ft3(FLUFFED): 9.2 lb/ft3
Boiling Point	Not available
Melting/Freezing Point	Not available
Solubility (in water)	insoluble
Solubility (in Solvent/Oil)	Not available
Minimum Ignition Energy (mj)	Not available
Minimum Explosion Conc. (MEC)	Not available

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Other Information

EVAPORATION RATE (BUTYL ACETATE = 1): Not available
LIMITED OXYGEN CONCENTRATION (LOC): Not available
PARTICLE SIZE: 3 microns

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability

Stable

Hazardous

Will not occur

Polymerization

(Conditions to avoid)

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity

THE FOLLOWING DATA WERE DEVELOPED WITH: Drione Insecticide
LD50 (rat): > 5,000 mg/kg
Practically non-toxic

Acute Dermal Toxicity

THE FOLLOWING DATA WERE DEVELOPED WITH: Drione Insecticide
LD50 (rabbit): > 2,000 mg/kg
Slightly toxic

Acute Inhalation Toxicity

THE FOLLOWING DATA WERE DEVELOPED WITH: Drione Insecticide
LC50 (rat, 4hr): 2.99 mg/l
Practically non-toxic

Skin Irritation

THE FOLLOWING DATA WERE DEVELOPED WITH: Drione Insecticide
Non-irritating
Primary Irr. Index = 0.1

Eye Irritation

THE FOLLOWING DATA WERE DEVELOPED WITH: Drione Insecticide
(Rabbit): slightly irritating

Sensitization

THE FOLLOWING DATA WERE DEVELOPED WITH: Drione Insecticide
(Guinea pig): non-sensitizing

NOTE: The severity classifications listed above are those of Aventis and, particularly for eye irritation, may not always coincide with EPA-Mandated Precautionary Statements.

THE FOLLOWING DATA WERE DEVELOPED WITH: pyrethrin and piperonyl butoxide, the active ingredients

Chronic Toxicity

In a recent study, marginally higher incidences of benign thyroid, parathyroid, ovary, and liver tumors were observed in rats and in lungs of mice following lifetime high doses exposures to pyrethrum.

Marginally higher incidences of benign liver tumors in mice were observed in mice following lifetime high dose exposures to piperonyl butoxide.

The significance of these observations is questionable and under review. The doses at which tumors were observed for both pyrethrum and piperonyl butoxide greatly exceeded potential human exposure from labeled uses.

Assessment Carcinogenicity

ACGIH

Pyrethrin

8003-34-7

Group A4

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NTP

None

IARC

Piperonyl butoxide	51-03-6
Amorphous silicon dioxide hydrate (Amorphous silica)	112926-00-8
Isoparaffinic Petroleum Solvent	64742-47-8

OSHA

None

Reproductive & Developmental Toxicity

There were no birth defects or adverse effects on reproductive parameters in tests with rats or rabbits for either pyrethrum or piperonyl butoxide. They are not considered to be teratogenic.

Mutagenicity

Pyrethrum was not found to be genotoxic and did not damage DNA in any study conducted (Ames mutagenicity assay, chromosome aberration in Chinese hamster ovaries (CHO) cells, and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells.

PBO was not genotoxic in several tests including the Ames mutagenicity assay, chromosome aberration in Chinese hamster ovary (CHO) cells, CHO/HGPRT assay with S9 activation, and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells.

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SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions	This product is toxic to fish. Do not apply directly to water. Do not contaminate water when disposing of equipment washwater or rinsate.
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SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance	Do not contaminate water, food or feed by disposal. Pesticide Disposal: Pesticide or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.
Container Disposal	Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner. Container One Pound and Smaller: Do not reuse container. Wrap container in several layers of newspaper and discard in trash. RCRA CLASSIFICATION: RCRA HAZARDOUS WASTE INGREDIENTS: None

SECTION 14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: Not DOT Regulated

ADDITIONAL SHIPPING PAPER DESCRIPTION

Pyrethrins have a Reportable Quantity of 1 pound. When sold in 40 pound boxes, Drione has a pyrethrin content of 0.4 pound which if spilled does not require reporting, therefore it is not DOT regulated at less than 100 pounds.

If Drione is sold in quantities of 100 pounds or more, then the correct DOT information is:

Environmentally hazardous substance, Solid, n.o.s. (Pyrethrins)
UN 3077, PG III, Class 9
Hazard Label: Class 9
RQ (Pyrethrins)

NOTE: For transport purposes (49 CFR Part 173.132), the calculated 1-Hour LC50 (Rat) is: > 11.96 mg/l.

SECTION 15. REGULATORY INFORMATION

US Federal

EPA Registration No.	432-992
TSCA list	
Piperonyl butoxide	51-03-6
Isoparaffinic Petroleum Solvent	64742-47-8
TSCA 12b export notification	

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None

SARA Title III - section 302 - notification and information

None

SARA Title III - section 313 - toxic chemical release reporting

Piperonyl butoxide	51-03-6	1.0%
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US States Regulatory

CA Prop65

This product contains a chemical known to the state of California to cause cancer.

None

This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

None

US State right-to-know ingredients

Pyrethrin	8003-34-7	CA, CT, IL, NJ, PA, RI
Piperonyl butoxide	51-03-6	NJ
Amorphous silicon dioxide hydrate (Amorphous silica)	112926-00-8	PA

Canadian Regulations

Canadian Registrat. No.

Canadian Domestic Substance List

Pyrethrin	8003-34-7
Piperonyl butoxide	51-03-6
Amorphous silicon dioxide hydrate (Amorphous silica)	112926-00-8
Isoparaffinic Petroleum Solvent	64742-47-8

Environmental

CERCLA

Pyrethrin	8003-34-7	1 lbs
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Clean Water Section 307 Priority Pollutants

None

Safe Drinking Water Act Maximum Contaminant Levels

None

International Regulations

EU Classification

None

European Inventory of Existing Commercial Substances (EINECS)

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SECTION 16. OTHER INFORMATION

	Health	Flammability	Reactivity	Others
HMIS	1	2	0	E
NFPA	1	2	0	

REVISED SECTIONS:

MSDS REVISION INDICATOR: New Format

PREPARED BY: Regulatory Department

PHONE: 800-438-5837

SUPERCEDES MSDS DATED: 05/18/2000

Print Date: 09/19/2001

Supersedes MSDS, which is older than: 09/19/2001

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