Material Safety Data Sheet

MSDS Number: 000000000062

DRIONE® INSECTICIDE

MSDS Version 3.

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

Component Name	CAS No.	Concentration % by Weight	
		Minimum	Maximum
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:			
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.

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. Seek medical attention.
Ingestion	Drink 1 or 2 glasses of water. Call a physician or Poison Control Center immediately.
Inhalation	Remove victim to fresh air. Seek medical attention if breathing difficulties occur.
Note to Physician	May pose an aspiration pneumonia hazard.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point	88 °C / 190 °F Test Type: Tag closed cup
Suitable Extinguishing Media	carbon dioxide (CO2), dry chemical, foam, water
Fire Fighting Instructions	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. FLAMMABILITY CLASSIFICATION/RATING: NFPA/OSHA Class: IIIA NFPA Rating (Fire): 2
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 effects of the spill. Ensure that the disposal is in compliance with Federal or local disposal regulations. See Section 15 for any applicable Reportable Quantity (RQ) and other federal regulatory information.

Land Spill or Leaks

Small Spill: 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 Spill: 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 and 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 or handling. Store upright at room temperature. Avoid 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 exposure guidelines. Local exhaust ventilation may be necessary.

Eye/Face Protection

safety glasses splash goggles or face-shield

Body Protection

Chemical-resistant gloves (Neoprene, Nitrile, PVC) other protective clothing to avoid skin contact

Respiratory Protection

Ensure adequate 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/m3

		NIOSH	REL		5 mg/m3
		OSHA Z1	PEL		5 mg/m3
		OSHA Z1A	TWA		5 mg/m3
		US CA OEL	TWA PEL		5 mg/m3
Amorphous silicon dioxide hydrate (Amorphous silica)	112926-00-8	OSHA Z1A	TWA		6 mg/m3
		US CA OEL	TWA PEL		5 mg/m3
		Form of Exposure		Respirable fraction.	
		US CA OEL	TWA PEL		5 mg/m3
		Form of Exposure		Respirable fraction.	
		US CA OEL	TWA PEL		10 mg/m3
		Form of Exposure		Total dust.	
		US CA OEL	TWA PEL		5 mg/m3
		Form of Exposure		Respirable fraction.	
		US CA OEL	TWA PEL		10 mg/m3
		Form of Exposure		Total dust.	
		US CA OEL	TWA PEL		10 mg/m3
		Form of Exposure		Total dust.	
		ACGIH	TWA		10 mg/m3
Isoparaffinic Petroleum Solvent	64742-47-8	ACGIH NIC	TWA		200 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
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 Polymerization (Conditions to avoid)	Will not occur

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	The following data was developed with: Drione Insecticide Rat: LD50: > 5,000 mg/kg Practically non-toxic
Acute Dermal Toxicity	The following data was developed with: Drione Insecticide Rabbit: LD50: > 2,000 mg/kg Slightly toxic.
Acute Inhalation Toxicity	The following data was developed with: Drione Insecticide Rat: LC50: 2.99 mg/l 4 h Practically non-toxic
Skin Irritation	The following data was developed with: Drione Insecticide Non-irritating. Primary Irr. Index = 0.1
Eye Irritation	The following data was developed with: Drione Insecticide Rabbit: Slightly irritating.
Sensitization	The following data was 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
NTP		
None		
IARC		
Piperonyl butoxide	51-03-6	3
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 systhesis (UDS) assay in cultured human liver cells.

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.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance	Do not contaminate water, food, or feed by disposal. Pesticide Disposal: Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of at 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 containers. Wrap container in several layers of newspaper and discard in trash.
RCRA Classification	Not Regulated under this Statute

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 Regulations

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

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

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

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)

Pyrethrin	8003-34-7
Piperonyl butoxide	51-03-6
Isoparaffinic Petroleum Solvent	64742-47-8

SECTION 16. OTHER INFORMATION

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

REVISED SECTIONS:
MSDS REVISION INDICATOR: Updated Regulatory Information, Additional Exposure Limits in Section 8 and Changes in Section 11, Carcinogenicity Assessment.

Print Date: 07/18/2002
Supersedes MSDS, which is older than: 07/18/2002

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