



## DRIONE<sup>®</sup> INSECTICIDE

MSDS Version 3.2

### SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product Name** DRIONE<sup>®</sup> 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.**

Bayer Environmental Science  
 95 Chestnut Ridge Road  
 Montvale, NJ 07645  
 USA

For MEDICAL, TRANSPORTATION or Other EMERGENCY call 1-800-334-7577 24 hours/day  
 For Product Information call 1-800-331-2867

**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	
Isoparaffinic Petroleum Solvent	64742-47-8		49.0000

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### SECTION 3. HAZARDS IDENTIFICATION

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

<b>Emergency Overview</b>	Causes moderate eye irritation. This product is toxic to fish.
<b>Physical State</b>	Solid
<b>Odor</b>	Very mild, tea-like odor.
<b>Appearance</b>	white to yellow
<b>Immediate Effects</b>	
<b>Eye</b>	Causes moderate eye irritation.
<b>Skin</b>	Harmful if absorbed through skin.
<b>Medical Conditions Aggravated by Exposure</b>	None known.
<b>Signs and Symptoms</b>	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

<b>Eye</b>	Flush eyes with plenty of water. Call a physician if irritation persists.
<b>Skin</b>	Wash with plenty of soap and water. Seek medical attention.
<b>Ingestion</b>	Drink 1 or 2 glasses of water. Call a physician or Poison Control Center immediately.
<b>Inhalation</b>	Remove victim to fresh air. Seek medical attention if breathing difficulties occur.
<b>Note to Physician</b>	May pose an aspiration pneumonia hazard.

### SECTION 5. FIRE FIGHTING MEASURES

<b>Flash Point</b>	88 °C / 190 °F Test Type: Tag closed cup
<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ), Dry chemical, Foam, Water
<b>Fire Fighting Instructions</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear. Keep upwind.

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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 13 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 Bayer 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.

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### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering Controls</b>	Control airborne concentrations below the exposure guidelines. Local exhaust ventilation may be necessary.
<b>Eye/Face Protection</b>	Safety glasses Splash goggles or Face-shield
<b>Body Protection</b>	Chemical-resistant gloves (Neoprene, Nitrile, PVC) Other protective clothing to avoid skin contact
<b>Respiratory Protection</b>	Ensure adequate ventilation. If not adequate, use a chemical cartridge-type respirator approved by the National Institute of Occupational Health and Safety.
<b>General Protection</b>	Eye wash facility and safety shower should be available.

#### Exposure Limits

Pyrethrin	8003-34-7	ACGIH	TWA	5 mg/m <sup>3</sup>
		NIOSH	REL	5 mg/m <sup>3</sup>
		OSHA Z1	PEL	5 mg/m <sup>3</sup>
		OSHA Z1A	TWA	5 mg/m <sup>3</sup>
		US CA OEL	TWA PEL	5 mg/m <sup>3</sup>
Amorphous silicon dioxide hydrate (Amorphous silica)	112926-00-8	OSHA Z1A	TWA	6 mg/m <sup>3</sup>
		US CA OEL	TWA PEL	5 mg/m <sup>3</sup>
		Form of Exposure	Respirable fraction.	
		US CA OEL	TWA PEL	5 mg/m <sup>3</sup>
		Form of Exposure	Respirable fraction.	
		US CA OEL	TWA PEL	10 mg/m <sup>3</sup>
		Form of Exposure	Total dust.	
		US CA OEL	TWA PEL	5 mg/m <sup>3</sup>
		Form of Exposure	Respirable fraction.	
		US CA OEL	TWA PEL	10 mg/m <sup>3</sup>
Form of Exposure	Total dust.			
Isoparaffinic Petroleum Solvent	64742-47-8	ACGIH	TWA	10 mg/m <sup>3</sup>
		ACGIH NIC	TWA	200 mg/m <sup>3</sup>

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	white to yellow
<b>Physical State</b>	Solid
<b>Odor</b>	Very mild, tea-like odor.
<b>pH</b>	6 - 8 Normally not mixed with water Neutral
<b>Vapor Pressure</b>	Not available
<b>Vapor Density (air = 1)</b>	Not available
<b>Density</b>	Not available
<b>Bulk Density</b>	(SETTLED): 12.2 lb/ft <sup>3</sup> (FLUFFED): 9.2 lb/ft <sup>3</sup>
<b>Boiling Point</b>	Not available
<b>Melting/Freezing Point</b>	Not available
<b>Solubility (in water)</b>	Insoluble
<b>Solubility (in Solvent/Oil)</b>	Not available
<b>Minimum Ignition Energy (mj)</b>	Not available
<b>Minimum Explosion Conc. (MEC)</b>	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 Polymerization (Conditions to avoid)**            Will not occur

### SECTION 11. TOXICOLOGICAL INFORMATION

**Acute Oral Toxicity**            Rat: LD50: > 5,000 mg/kg

**Acute Dermal Toxicity**        Rabbit: LD50: > 2,000 mg/kg

**Acute Inhalation Toxicity**    Rat: LC50: 2.99 mg/l 4 h

**Skin Irritation**                Non-irritating.  
   Primary Irr. Index = 0.1

**Eye Irritation**                 Rabbit: Slightly irritating.

**Sensitization**                 Guinea pig: Non-sensitizing

NOTE: The severity classifications listed above are those of Bayer 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

<b>ACGIH</b>		
Pyrethrin	8003-34-7	Group A4
<b>NTP</b>		
None		

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<b>IARC</b>		
Piperonyl butoxide	51-03-6	3
<b>OSHA</b>		
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.

## 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

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### 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, MN, NJ, PA, RI
Piperonyl butoxide	51-03-6	NJ
Amorphous silicon dioxide hydrate (Amorphous silica)	112926-00-8	MN, PA

#### Canadian Regulations



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### 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)

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

## SECTION 16. OTHER INFORMATION

NFPA	Health	Flammability	Reactivity	Others
	1	2	0	

### REVISED SECTIONS:

Changed solvent to maximum concentration; removed HMIS safety ratings

Print Date: 01/22/2004

Supersedes MSDS, which is older than: 09/15/2003

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