



Material Safety Data Sheet

DRIONE® INSECTICIDE

MSDS Number: 102000002537
 MSDS Version 2.0
 Revision Date: 02/08/2008

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name DRIONE® INSECTICIDE
MSDS Number 102000002537
EPA Registration No. 432-992

Bayer Environmental Science
 2 T.W. Alexander Drive
 Research Triangle PK, NC 27709
 USA

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

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Pyrethrins including cinerins	8003-34-7	1.00
Piperonyl butoxide	51-03-6	10.00
Silica, amorphe	7631-86-9	40.00
Distillates (petroleum), hydrotreated light	64742-47-8	

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! Harmful if swallowed or absorbed through skin. Moderate eye irritation. Avoid contact with skin, eyes and clothing. Avoid breathing dust.

Physical State powder

Odor very faint

Appearance white to light yellow

Routes of Exposure Eye contact, Skin Absorption, Ingestion, Inhalation

Immediate Effects

Eye Moderate eye irritation. Avoid contact with eyes.

Skin Harmful if absorbed through skin. May cause slight irritation. Avoid contact with skin and clothing.



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Ingestion	Harmful if swallowed. Do not take internally. Ingestion of large amounts may be harmful (see Signs and Symptoms).
Inhalation	Avoid breathing dust.
Chronic or Delayed Long-Term	This product or its components may have target organ effects. This product or its components may have long term (chronic) health effects. This product contains ingredients that are considered to be probable or suspected human carcinogens (see Section 11 - Chronic).
Potential Environmental Effect	Toxic to fish.

SECTION 4. FIRST AID MEASURES

General	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Skin	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Notes to Physician Signs and Symptoms	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Ingestion of larger amounts may have impact on the central nervous system (e.g. dizziness, headache).
Hazards	Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard.
Treatment	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.



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SECTION 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Carbon dioxide (CO ₂), Dry chemical, Foam, Water
Fire Fighting Instructions	<p>Keep out of smoke. Fight fire from upwind position. Cool closed containers/ tanks exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.</p> <p>Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing. In the event of fire and/or explosion do not breathe fumes.</p>

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Remove all sources of ignition. Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
Methods for Cleaning Up	Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.
Additional Advice	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

SECTION 7. HANDLING AND STORAGE

Handling Procedures	<p>Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. Handle and open container in a manner as to prevent spillage.</p> <p>Take measures to prevent the build up of electrostatic charge.</p>
Storing Procedures	Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.
Work/Hygienic Procedures	<p>Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.</p> <p>Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.</p>



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SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection Eye wash facility and safety shower should be available. Follow all label instructions. Train employees in safe use of the product.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

Eye/Face Protection Tightly fitting safety goggles

Hand Protection Chemical resistant nitrile rubber gloves

Body Protection Wear long-sleeved shirt and long pants and shoes plus socks.

Respiratory Protection When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Exposure Limits

Pyrethrins including cinerins	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
		TX ESL	ST ESL	50 ug/m3
Piperonyl butoxide Silica, amorphe	51-03-6 7631-86-9	TX ESL	AN ESL	5 ug/m3
		OES BCS*		500 ppm
		NIOSH	REL	6 mg/m3

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance white to light yellow

Physical State powder

Odor very faint

pH no data available

Bulk Density 12.2 lb/ft³



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evidence of cancer in laboratory animals.

ACGIH

Pyrethrins including cinerins 8003-34-7 Group A4

NTP

None.

IARC

Piperonyl butoxide 51-03-6 Overall evaluation: 3

Silica, amorphe 7631-86-9 Overall evaluation: 3

OSHA

None.

Reproductive & Developmental Toxicity

REPRODUCTION:
Pyrethrin was not a reproductive toxicant in a multi-generation rat study.

Piperonyl butoxide was not a reproductive toxicant in a two-generation study in rats.

DEVELOPMENTAL TOXICITY:
Pyrethrin was not a developmental toxicant in rats and rabbits.

Piperonyl butoxide did not cause developmental, embryotoxic or teratogenic effects in developmental toxicity studies in rats and rabbits.

Neurotoxicity

Pyrethrin caused neurobehavioral effects (e.g., tremors) in rats following acute and repeated oral exposure.

Piperonyl butoxide did not demonstrate the potential to cause neurotoxicity in standard toxicity studies submitted to the Agency. EPA has concluded that there is not a concern for neurotoxicity resulting from exposure to piperonyl butoxide.

Mutagenicity

Pyrethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Piperonyl butoxide does not have significant potential for mutagenicity based on sufficient evidence.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions

Do not allow to get into surface water, drains and ground water. Do not apply when weather conditions favor runoff or drift. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.



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SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Do not contaminate water, food, or feed by disposal. Follow container label instructions for disposal of wastes generated during use in compliance with the product label. Never place unused product down any indoor or outdoor drain.

Container Disposal Completely empty container into application equipment, then dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities. If burned, stay out of smoke.

SECTION 14. TRANSPORT INFORMATION

TRANSPORTATION CLASSIFICATION:
 DOT:
 Package size is less than 100 LBS. It is Not regulated for Domestic Surface Shipment

* If package size is greater than a 100 LBS. the RQ of Pyrethrins is met. It is regulated as follows:
 RQ, UN3077, Environmentally Hazardous Substances, Solid, N.O.S.(Pyrethrins), 9, PG III

FREIGHT CLASSIFICATION:
 Insecticides or Fungicides, N.O.I.; other than poison

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 432-992

US Federal Regulations

TSCA list

Piperonyl butoxide	51-03-6
Silica, amorphe	7631-86-9
Distillates (petroleum), hydrotreated light	64742-47-8

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

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 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



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Piperonyl butoxide	51-03-6	NJ
Silica, amorphe	7631-86-9	CA, MN

Canadian Regulations

Canadian Domestic Substance List

Pyrethrins including cinerins	8003-34-7
Piperonyl butoxide	51-03-6
Silica, amorphe	7631-86-9
Distillates (petroleum), hydrotreated light	64742-47-8

Environmental

CERCLA

Pyrethrins including cinerins	8003-34-7	1 lbs
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Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 2 Reactivity - 0 Others - none

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: Updated due to new system and numbering scheme. Updated for general editorial purposes.

Revision Date: 02/08/2008

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