PYRENONE® 50

MSDS Version 1.1

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name	PYRENONE® 50
Chemical Name	
Synonym	
MSDS Number	149
Chemical Family	Mixture
Chemical Formulation	Mixture
EPA Registration No.	432-1057
Canadian Registrat. No.	

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

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

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS No.	Concentration % by Weight	
		Minimum	Maximum
Pyrethrin	8003-34-7	0.5000	
Piperonyl butoxide	51-03-6	5.0000	

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview Thin light yellow liquid that is:
Harmful if swallowed or absorbed through skin.
Toxic to fish.

Odor Very mild.

Appearance Thin, light yellow, clear liquid.

Routes of Exposure Oral, inhalation, skin and eye contact.

Immediate Effects

Eye Non-irritating.

Skin	Harmful if absorbed through skin.
Ingestion	Harmful if swallowed.
Chronic or Delayed Long-Term	See Section 11 for carcinogenic/oncogenic information on piperonyl butoxide.
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 water for 10-15 minutes. Contact a physician if irritation persists.
Skin	Remove contaminated clothing. Wash skin with soap and water. Contact a physician if irritation persists.
Ingestion	Contact a physician or Poison Control Center immediately. Do NOT induce vomiting unless directed to do so by a Physician. This product contains petroleum distillate. Vomiting may cause aspiration pneumonia. Do not give anything by mouth to an unconscious person.
Inhalation	Remove affected person to fresh air. Apply artificial respiration if indicated.
Note to Physician	This product contains a pyrethroid. If a small amount is ingested (or if treatment is delayed) oral administration of large amounts of activated charcoal and a cathartic is probably sufficient therapy. Do not administer milk, cream or other substances containing vegetable or animal fats, which enhance the absorption of lipophilic substances.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point	171 °F TCC
Suitable Extinguishing Media	Foam, carbon dioxide, water fog and dry chemical.
Fire Fighting Instructions	Use self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear. Cool fire-exposed areas and equipment. Do not use direct stream of water. Material may float and reignite.

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal

Soak up with an absorbent material such as sand, sawdust, earth, and fuller's earth. Dispose of with chemical waste.

SECTION 7. HANDLING AND STORAGE

Handling Procedures

Avoid breathing vapors or spray mist.
Avoid contact with eyes and skin.
Do not apply directly to food.
In commercial food handling facilities, cover or remove food and food processing equipment before application.
Do not apply while food processing is underway.
Remove pets and birds and cover fish aquaria before spraying.

Storing Procedures

Store upright at room temperature. Avoid exposure to extreme temperatures.

Containers Smaller Than One Gallon: Store in original container in a cool dry place inaccessible to children and pets.

Work/Hygienic Procedures

Wash hands, arms and face with soap and water after handling and before eating or smoking. Wash contaminated clothing with soap and hot water before reuse.

After space spraying in meat packing plants, bakeries and all other food processing plants, wash all equipment thoroughly with a suitable detergent and rinse with potable water (benches, shelving, etc.) where exposed food will be handled. All food processing surfaces should be covered during treatment or thoroughly washed before reuse.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/Face Protection

Safety glasses or goggles.

Body Protection

Rubber or impervious gloves.

Respiratory Protection

Pesticide respirator jointly approved by the Mining Enforcement and Safety Administration and by the National Institute for Occupational, Safety and Health under the provisions of 30 CFR 11.

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Thin, light yellow, clear liquid.
Odor	Very mild.
Vapor Pressure	< 2 mmHg at 25 °C
Vapor Density (air = 1)	> 5
Specific Gravity	0.791
Solubility (in water)	Water-insoluble
Solubility (in Solvent/Oil)	Oil-soluble
Other Information	EVAPORATION RATE: < 0.1 (N-butyl Acetate = 1)

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Conditions to Avoid	None
Incompatibility	Strong oxidizing agents.
Hazardous Products of Decomposition	None known.
Hazardous Polymerization (Conditions to avoid)	Will not occur

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD50 > 3000 mg/kg
Acute Dermal Toxicity	LD50 > 3000 mg/kg
Acute Inhalation Toxicity	LC50 > 7.5 mg/L air
Skin Irritation	Irritation: Mildly irritating
Eye Irritation	Non-irritating

This information was sourced from previous MSDS (prepared 5/22/91).

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		

Teratogenicity

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 lakes, streams, ponds, tidal marshes or estuaries. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance

Do not contaminate water, food or feed by storage or disposal.

Pesticide Disposal: Pesticide, spray mixture 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

Container Disposal (Larger than one gallon): Do not reuse empty container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Container Disposal (One gallon and smaller): Store in original container in a cool dry place inaccessible to children and pets. Do not reuse container. Wrap container in several layers of newspaper and discard in trash.

RCRA Classification

SECTION 14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: Environmentally Hazardous Substance, Liquid, n.o.s. (Pyrethrins)

HAZARD CLASS: 9, PG III
DOT SHIPPING LABEL: Class 9
DOT IDENTIFICATION NUMBER: UN3082

ADDITIONAL SHIPPING PAPER DESCRIPTION RQ (Pyrethrins)

NOTE: This product is not regulated by DOT in quantities less than 30 gallons.

SECTION 15. REGULATORY INFORMATION

US Federal

EPA Registration No. 432-1057

TSCA list

Piperonyl butoxide 51-03-6

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

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

Canadian Regulations

Canadian Registrat. No.

Canadian Domestic Substance List

Pyrethrin	8003-34-7
Piperonyl butoxide	51-03-6

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

SECTION 16. OTHER INFORMATION

REVISED SECTIONS:
MSDS REVISION INDICATOR: Company name change.

PREPARED BY: Regulatory Department
PHONE: 800-438-5837
SUPERCEDES MSDS DATED: 02/06/97

Print Date: 12/09/2002
Supersedes MSDS, which is older than: 12/09/2002

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