PYRENONE® 100

MSDS Version 2.1

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name	PYRENONE® 100
Chemical Name	
Synonym	
MSDS Number	146
Chemical Family	Mixture
Chemical Formulation	Mixture
EPA Registration No.	432-1072
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	1.0000	
Piperonyl butoxide	51-03-6	5.0000	
Isoparaffinic Petroleum Solvent	64742-47-8	94.0000	

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview	Caution. Keep out of the reach of children. Harmful if swallowed. This product is toxic to fish.
Physical State	liquid (thin)
Odor	very mild
Appearance	clear, light yellow

Routes of Exposure	Inhalation and ingestion.
Immediate Effects	
Eye	Avoid contact with eyes.
Skin	May cause mild irritation to the skin. Harmful if absorbed through the skin. Avoid contact with skin or clothing.
Ingestion	Harmful if swallowed.
Inhalation	May be harmful if inhaled. Avoid breathing spray mist.
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	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 poison control center or doctor for treatment advice.
Skin	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Ingestion	Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Inhalation	Remove victim 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 poison control center or doctor for further treatment advice.
Note to Physician	Have the product container or label with you when calling a poison control center or doctor or going for treatment. 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	75 °C / 167 °F Method: Tagliabue Closed Cup
Lower Flammable Limit	0.6 %(V)
Upper Flammable Limit	7 %(V)
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. 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, fuller's earth, etc. Dispose of with chemical waste.

SECTION 7. HANDLING AND STORAGE

Handling Procedures	Do not breathe spray mist. Remove pets, birds and cover fish aquaria before spraying. Do not apply as a space spray while food processing is underway. Foods should be removed or covered before treatments. When using in animal quarters, do not apply directly to food, water or food supplements.
Storing Procedures	Do not contaminate water, food, or feed by storage or disposal. Store upright at room temperature. Avoid exposure to extreme temperatures.
Work/Hygienic Procedures	Wash exposed skin surfaces with soap and water after handling and before eating or smoking. Wash all contaminated clothing with soap and hot water before reuse. Wash teats of dairy animals before milking. Food processing surfaces and equipment must be covered during treatment or cleaned with a suitable detergent and rinsed with potable water before reuse.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/Face Protection	safety glasses or goggles
Body Protection	impervious gloves
Respiratory Protection	Wear mask or respirator of a type recommended by the U.S. Bureau of Mines to give adequate protection against this material.

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
Isoparaffinic Petroleum Solvent	64742-47-8	ACGIH NIC	TWA	200 mg/m3

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	clear, light yellow
Physical State	liquid (thin)
Odor	very mild
Vapor Pressure	< 2 mm Hg at 25 °C
Vapor Density (air = 1)	> 5
Specific Gravity	0.789
Solubility (in water)	insoluble
Other Information	PERCENT VOLATILES: 94% EVAPORATION RATE: < 0.1 (N-Butyl Acetate = 1)

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable

Incompatibility	strong oxidizing agents
Hazardous Polymerization (Conditions to avoid)	Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD50: > 3,000 mg/kg
Acute Dermal Toxicity	LD50: > 3,000 mg/kg
Acute Inhalation Toxicity	LC50: > 4.93 mg/l 4 h LC50: > 19.72 mg/l 1 h for DOT purposes
Skin Irritation	Mildly irritating.
Eye Irritation	Non-irritating.
Sensitization	Not a skin sensitizer.

The above Acute Toxicity data based on Turbocide Gold with Pyrenone, EPA Reg. No. 432-1186, containing 4.03% Pyrethrins and 32.26% Piperonyl Butoxide.

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. For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below mean high water mark. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment or disposal of equipment wastewaters. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where these are important resources.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance

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

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 One Gallon 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: Environmentally hazardous substance, liquid, n.o.s. (Pyrethrins)

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

ADDITIONAL SHIPPING PAPER DESCRIPTION: RQ (Pyrethrins)

This product is not regulated by DOT if total product shipped is less than 15 gallons.

SECTION 15. REGULATORY INFORMATION

US Federal

EPA Registration No. 432-1072

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

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
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	F
NFPA				

REVISED SECTIONS:

MSDS REVISION INDICATOR: Company name change.

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

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