
Product Name: Pyrenone® Aerosol Concentrate 20-8
Product Code: 15364
MSDS Number : ENV-0035 Rev 0
Version Date: October 5 2001

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Material Safety Data Sheet

----- 1. CHEMICAL PRODUCT and COMPANY IDENTIFICATION -----

Product Name: Pyrenone® Aerosol Concentrate 20-8
Product Code: 15364
MSDS Number : ENV-0035
Chemical Family: Mixture
Chemical Formula: Mixture
EPA Registry Number: 73049-212
MANUFACTURER: Valent BioSciences Corporation
870 Technology Way, Suite 100
Libertyville, Illinois 60048

EMERGENCY TELEPHONE NUMBERS

Emergency Health or Spill:

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

PRODUCT USE:

This product is to be used only for the manufacturing of insecticides.

Pyrenone is a registered trademark of Aventis.

----- 2. COMPOSITION / INFORMATION on INGREDIENTS -----

Component	Cas number	%
Pyrethrin	8003-34-7	8%
Piperonyl butoxide	51-03-6	20%
Aliphatic Petroleum	64742-47-8	> 40%
Distillates		

----- 3. HAZARDS IDENTIFICATION -----

EMERGENCY OVERVIEW:

A medium amber, slightly viscous liquid that is:

- Harmful if swallowed or absorbed through skin.
 - Toxic to fish.
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----- **3. HAZARDS IDENTIFICATION (Continued)** -----

POTENTIAL HEALTH EFFECTS

ROUTES OF EXPOSURE:

Ingestion and skin contact.

SIGNS AND SYMPTOMS OF EXPOSURE:

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.

IMMEDIATE EFFECTS

SKIN:

Harmful if absorbed.

EYES:

Slightly irritating.

INGESTION:

Harmful if swallowed.

DELAYED/LONG TERM EFFECTS

CARCINOGENIC:

See Section 11 for carcinogenic/oncogenic information on piperonyl butoxide.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None known.

----- **4. FIRST AID MEASURES** -----

After contact with skin:

Remove all contaminated clothing. Wash with plenty of soap and water. Get medical attention if irritation persists.

After contact with eyes:

Flush with plenty of potable water for at least 15 minutes. Get medical attention if irritation persists.

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----- **4. FIRST AID MEASURES (Continued)** -----

After inhalation:

Remove to fresh air. If breathing is difficult or if discomfort persists, obtain medical attention.

After ingestion:

Call physician or Poison Control Center. This product contains a petroleum solvent. Aspiration may be a hazard.

Hints for the physician:

This product contains a pyrethroid and a petroleum solvent. If ingested and vomiting has not occurred, emesis should be induced with supervision. If symptoms such as loss of gag reflex, convulsions or unconsciousness occur before emesis, gastric lavage using a cuffed endotracheal tube should be considered.

Do not administer milk, cream or other substances containing vegetable or animal fats. These only enhance absorption of lipophilic substances.

----- **5. FIRE FIGHTING MEASURES** -----

FLAMMABLE PROPERTIES

Flash point: 170°F 77°C TCC

Advice on protection against fire and explosion:

FIRE AND EXPLOSION HAZARDS: Do not use or store near heat or open flame.

FIRE FIGHTING INSTRUCTIONS: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear.

Suitable extinguishing media:

Carbon dioxide, dry chemical or foam.

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----- **6. ACCIDENTAL RELEASE MEASURES** -----

In case of spill or leak, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

----- **7. HANDLING and STORAGE** -----

Handling:

- Avoid contact with eyes, skin or clothing.

Storage:

Store upright in a cool and dry area. Avoid exposure to extreme temperatures.

----- **8. EXPOSURE CONTROLS / PERSONAL PROTECTION** -----

Additional advice on system design:

ENGINEERING CONTROLS: Normal mechanical exhaust is recommended.

Hygiene measures:

Wash thoroughly with soap and water after handling.

Personal protective equipment

Body protection:

Impervious gloves.

Eye protection:

Safety glasses or goggles.

EXPOSURE GUIDELINES:

Pyrethrin (8003-34-7)

OSHA PEL	ACGIH TLV	HCC WEL
5 mg/m ³ (PEL)	5 mg/m ³ (TWA) None	

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----- **9. PHYSICAL and CHEMICAL PROPERTIES** -----

APPEARANCE: Clear, medium-amber, slightly viscous liquid

ODOR: Very mild

BASIC PHYSICAL PROPERTIES

PHYSICAL STATE: Liquid

VAPOR DENSITY (AIR=1): > 5

SPECIFIC GRAVITY: 0.850

SOLUBILITY (H₂O): Insoluble

EVAPORATION RATE: Less than 0.1 (N-Butyl acetate = 1)

DENSITY: 7.08 lbs/gal @ 20°C

----- **10. STABILITY and REACTIVITY** -----

CHEMICAL STABILITY:

Stable

INCOMPATIBILITY:

Strong oxidizing agents.

HAZARDOUS POLYMERIZATION:

Will not occur

----- **11. TOXICOLOGICAL INFORMATION** -----

ACUTE STUDIES

No acute data is available for this formulation. Acute toxicity data listed is for a similar formulation, Turbocide GOLD with Pyrenone; EPA Reg. No. 432-1186, which contains Pyrethrins at 3.93% and Piperonyl Butoxide at 32.26%.

EYE EFFECTS

Slightly irritating (rabbit)

SKIN EFFECTS

Irritation (rabbit): Slightly irritating

Absorption (rabbit): LD50 > 5,000 mg/kg

Sensitization (guinea pig): Sensitizer

ACUTE ORAL EFFECTS

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----- **11. TOXICOLOGICAL INFORMATION (Continued)** -----

LD50 (rat) > 5,000 mg/kg

ACUTE INHALATION EFFECTS

4-Hour LC50 (rat) > 4.93 mg/L

1-Hour equivalent LC50 > 19.72 mg/L (for DOT purposes)

CHRONIC (CANCER INFORMATION)

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.

CARCINOGENICITY: NTP: No IARC: No OSHA: No

TERATOGENICITY (BIRTH DEFECTS)

There were no birth defects or adverse effects on reproductive parameters in tests with rats or rabbits with either pyrethrum or piperonyl butoxide. They are not considered to be teratogenic.

MUTAGENICITY (GENETIC EFFECTS)

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.

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----- **12. ECOLOGICAL INFORMATION** -----

OTHER ENVIRONMENTAL INFORMATION

This product is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

----- **13. DISPOSAL CONSIDERATIONS** -----

Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or 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.

----- **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)

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----- **15. REGULATORY INFORMATION** -----

STATE REGULATIONS

The following chemicals associated with the product are subject to the right-to-know regulations in these states:
Pyrethrin (8003-34-7): CT, FL, IL, MA, NJ, NY, PA, RI
Piperonyl butoxide (51-03-6): NJ

U.S. FEDERAL REGULATIONS

TSCA inventory status
These components are not listed:
Pyrethrin 8% (8003-34-7)

SARA 313 :
Piperonyl butoxide 20% (51-03-6)

ENVIRONMENTAL:

CERCLA HAZARDOUS SUBSTANCE :
Pyrethrin 8% (8003-34-7)
SARA EHS 304 REPORTABLE QUANTITY :
Pyrethrin 8% (8003-34-7)

INTERNATIONAL REGULATIONS

Die folgende(n) Chemikalie(n), die mit dem Produkt verbunden sind, sind auch auf folgenden internationalen Listen aufgeföhrt:
Pyrethrin (8003-34-7): CANADIAN DSL, EINECS
Piperonyl butoxide (51-03-6): CANADIAN DSL, EINECS
Aliphatic Petroleum Distillates (64742-47-8): CANADIAN DSL,
EINECS

----- **16. OTHER INFORMATION** -----

HAZARD RATINGS

	HEALTH	FLAMM	REACT	OTHER
NFPA	1	2	0	
HMIS	1	2	0	B

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----- **16. OTHER INFORMATION (Continued)** -----

LEGEND: N/A = Not Applicable
N/D = Not Determined
N/L = Not Listed
L = Listed
C = Ceiling
S = Short-term

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