
Product Name: Pyrenone® W.B. 20-4
Product Code: 15389
MSDS Number : ENV-0039 Rev 0
Version Date: October 5 2001

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Material Safety Data Sheet

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

Product Name: Pyrenone® W.B. 20-4
Product Code: 15389
MSDS Number : ENV-0039
Chemical Family: Mixture
Chemical Formula: Mixture
EPA Registry Number: 73049-247
MANUFACTURER: Valent BioSciences Corporation
870 Technology Way, Suite 100
Libertyville, Illino:

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 registered only for the formulation of insecticides.

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

Component	Cas number	%
Pyrethrin	8003-34-7	4%
Piperonyl butoxide, technical	51-03-6	20%
Aliphatic Petroleum Distillates	64742-47-8	> 50%

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

EMERGENCY OVERVIEW:

- A thin amber liquid that is:
- Harmful if swallowed.
 - Toxic to fish.
-

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----- **3. HAZARDS IDENTIFICATION (Continued)** -----

POTENTIAL HEALTH EFFECTS

ROUTES OF EXPOSURE:

Ingestion

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:

May cause moderate irritation.

INGESTION:

Harmful if swallowed.

DELAYED/LONG TERM EFFECTS

CARCINOGENIC:

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

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None known.

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

After contact with skin:

Remove contaminated clothing and wash affected areas with soap and water.

After contact with eyes:

Flush with plenty of water. Get medical attention if irritation persists.

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

After ingestion:

Call a physician or Poison Control Center immediately.
Gastric lavage is indicated if material was taken internally. Do not induce vomiting: vomiting may cause aspiration pneumonia.

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: 119°F 48°C TCC

Advice on protection against fire and explosion:

FIRE AND EXPLOSION HAZARDS: Do not use, pour, spill 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, foam or water.

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

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 skin, eyes or clothing.
- Avoid contamination of feed and foodstuffs.

Storage:

Store upright at room temperature. 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 hands after using. Remove contaminated clothing and wash before reuse.

Personal protective equipment

Body protection:

Impervious gloves.

Eye protection:

Safety glasses.

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: Thin, amber liquid

ODOR: Very mild

BASIC PHYSICAL PROPERTIES

PHYSICAL STATE: Liquid

SPECIFIC GRAVITY: 0.822

SOLUBILITY (H₂O): Emulsifiable

DENSITY: 6.85 lbs/gal

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

CHEMICAL STABILITY:

Stable

INCOMPATIBILITY:

Strong oxidizing agents.

HAZARDOUS POLYMERIZATION:

Will not occur

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

EYE EFFECTS

Non-irritating (rabbit)

SKIN EFFECTS

Irritation (rabbit): Moderately irritating

Absorption (rabbit): LD₅₀ > 2,000 mg/kg

ACUTE ORAL EFFECTS

LD₅₀ (rat) > 5,000 mg/kg

ACUTE INHALATION EFFECTS

4-Hour LC₅₀ (rat) > 5 mg/L

1-Hour equivalent LC₅₀ > 20 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

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

in rats and in lungs of mice following lifetime high dose 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 and rabbits for either pyrethrum and 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.

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

OTHER ENVIRONMENTAL INFORMATION

This product is toxic to fish. Do not discharge effluent containing this product to 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

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----- **12. ECOLOGICAL INFORMATION (Continued)** -----

effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Do not contaminate lakes or streams by cleaning of equipment or disposal of wastes.

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

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: 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.

Containers One Gallon and Smaller: Do not reuse container. Wrap container in several layers of newspaper and discard in trash.

----- **14. TRANSPORT INFORMATION** -----

PROPER SHIPPING NAME: Flammable Liquid, n.o.s. (Petroleum distillate)

HAZARD CLASS: 3, PG III
DOT IDENTIFICATION NUMBER: UN1993
DOT SHIPPING LABEL: Flammable Liquid

ADDITIONAL SHIPPING PAPER DESCRIPTION
RQ (Pyrethrins)

NOTE: The RQ notation is not required on quantities less or equal to 3 gal.

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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

SARA TITLE III NOTIFICATION AND INFORMATION:

SARA TITLE III - HAZARD CLASSES

Acute Health Hazard - No
Chronic Health Hazard - No
Fire Hazard - Yes
Sudden Release of Pressure Hazard - No
Reactivity Hazard - No

TSCA inventory status

These components are not listed:

Pyrethrin 4% (8003-34-7)

SARA 313 :

Piperonyl butoxide 20% (51-03-6)

ENVIRONMENTAL:

CERCLA HAZARDOUS SUBSTANCE :

Pyrethrin 4% (8003-34-7)

SARA EHS 304 REPORTABLE QUANTITY :

Pyrethrin 4% (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

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

HAZARD RATINGS

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

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

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