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Product Name: Pyrenone® 30-3 S.E. Concentrate  
Product Code: 15355  
MSDS Number : ENV-0033 Rev 0  
Version Date: October 5 2001

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## Material Safety Data Sheet

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

**Product Name:** Pyrenone® 30-3 S.E. Concentrate  
**Product Code:** 15355  
**MSDS Number :** ENV-0033  
Chemical Family: Mixture  
Chemical Formula: Mixture  
EPA Registry Number: 73049-273  
Canadian PCP Registration Number: 18528

**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

Pyrenone is a registered trademark of Aventis.

**PRODUCT USE:**

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

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

Component	Cas number	%
Pyrethrin	8003-34-7	3%
Piperonyl butoxide, technical	51-03-6	30%
Aliphatic Petroleum	64742-47-8	> 10%
Distillates		

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

**EMERGENCY OVERVIEW:**

A slightly hazy, amber liquid that:

- Causes substantial but temporary eye injury.
  - Harmful if swallowed.
  - Is toxic to fish.
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----- **3. HAZARDS IDENTIFICATION (Continued)** -----

**POTENTIAL HEALTH EFFECTS**

**ROUTES OF EXPOSURE:**

Inhalation, skin and eye 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:**

Causes moderate irritation.

**EYES:**

Causes severe irritation.

**INHALATION:**

Harmful if inhaled.

**INGESTION:**

Harmful if swallowed.

**DELAYED/LONG TERM EFFECTS**

**CARCINOGENIC:**

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

----- **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 eyes with plenty of 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 a physician or Poison Control Center. This product contains 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: 135°F 57°C TCC

**Advice on protection against fire and explosion:**

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

**Suitable extinguishing media:**

Foam, carbon dioxide, dry chemical and fog.

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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 AND STORAGE PRECAUTIONS

Do not use or store near heat or flame. Do not contaminate water, food or feed.

#### Handling:

- Do not get in eyes or on clothing.
- Do not breathe spray mist.

#### Storage:

Store upright at room temperature. Do not store near heat or open flame.

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

### Hygiene measures:

Wash exposed skin surfaces with soap and water after handling and before eating and smoking.

### Personal protective equipment

#### Body protection:

Chemical-resistant such as nitrile or butyl gloves.

#### Eye protection:

Chemical goggles or face shield.

#### Respiratory protection:

In poorly ventilated areas use a 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 Part 11.

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----- **8. EXPOSURE CONTROLS / PERSONAL PROTECTION (Continued)** -----

**EXPOSURE GUIDELINES:**

Pyrethrin (8003-34-7)

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

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

APPEARANCE: Slightly hazy amber, viscous liquid.

ODOR: Slightly sharp surfactant odor.

**BASIC PHYSICAL PROPERTIES**

SPECIFIC GRAVITY: 1.002

SOLUBILITY (H<sub>2</sub>O): Emulsifiable

LBS/GAL.: 8.35

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

**CHEMICAL STABILITY:**

Stable

**CONDITIONS TO AVOID:**

None.

**INCOMPATIBILITY:**

Strong oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

None known.

**HAZARDOUS POLYMERIZATION:**

Will not occur

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

EYE EFFECTS

Severely irritating

SKIN EFFECTS

Irritation: Moderately irritating

Absorption: LD50 > 2.0 g/kg

Sensitization: Not a sensitizer

ACUTE ORAL EFFECTS

LD50: 4.3 g/kg (male rat)

2.0 g/kg (female rat)

ACUTE INHALATION EFFECTS

LC50 > 2.6 mg/L

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

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

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 apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

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

Pesticide: 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: 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 approved State and local procedures.

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

PROPER SHIPPING NAME: Flammable Liquids, 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)

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----- **14. TRANSPORT INFORMATION (Continued)** -----

NOTE: The RQ for Pyrethrins is only applied to quantities of 4 gallons or more.

----- **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 3% (8003-34-7)  
  
SARA 313 :  
    Piperonyl butoxide 30% (51-03-6)

**ENVIRONMENTAL:**

CERCLA HAZARDOUS SUBSTANCE :  
    Pyrethrin 3% (8003-34-7)  
SARA EHS 304 REPORTABLE QUANTITY :  
    Pyrethrin 3% (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	B

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

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