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A Company of Hoechst and Shering, Berlin

# Synerol<sup>®</sup> Insecticide

# Synerol

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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AgrEvo Environmental Health  
95 Chestnut Ridge Road  
Montvale, NJ 07645

COMPANY CONTACT: Regulatory Dept.  
TELEPHONE NUMBER: (800)438-5837

**EMERGENCY TELEPHONE NUMBER**  
(800)471-0660

PRODUCT NAME: Synerol Insecticide  
PRODUCT CODE: E72010KF  
CHEMICAL FAMILY: Mixture  
CHEMICAL FORMULA: Mixture  
EPA REGISTRY NUMBER: 4816-570-432  
MSDS IDENTIFICATION CODE/NUMBER: E72010KF

Synerol is a registered trademark of AgrEvo Environmental Health, Inc.

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

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INGREDIENT NAME:	EXPOSURE LIMITS:	CONCENTRATION PERCENT BY WEIGHT:
<b>Pyrethrins</b> CAS NUMBER: 22781-23-3	None established	2.5
<b>Piperonyl butoxide</b> CAS NUMBER: 51-03-6	None established	12.5
<b>Petroleum distillate</b> CAS NUMBER: 64742-47-8	None established	> 80

**INERT INGREDIENTS (24.0%):** only the regulated ingredients are listed above.  
For additional information, refer to Section 15 (Regulatory Information).

### 3. HAZARDS IDENTIFICATION

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#### EMERGENCY OVERVIEW

**Yellow liquid that is:  
Harmful if swallowed.  
Toxic to fish.**

#### POTENTIAL HEALTH EFFECTS

#### PRIMARY ROUTE(S) OF ENTRY

Ingestion and inhalation.

#### EYES

Mildly irritating

#### SKIN

May cause irritation.

#### INGESTION

Harmful if swallowed.

#### CHRONIC (CANCER INFORMATION)

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

#### SIGNS AND SYMPTOMS

Symptoms reported in cases of accidental ingestion by humans include labored breathing, vomiting and convulsions.

#### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None known.

#### MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE

None known.

### 4. FIRST AID MEASURES

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#### EYES

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

#### SKIN

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

#### INGESTION

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

#### INHALATION

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

#### NOTE TO 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

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#### FLAMMABLE PROPERTIES

**FLASH POINT:** 159 F 71 C TCC

#### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam, or Water.

#### FIRE FIGHTING INSTRUCTIONS

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

### 6. ACCIDENTAL RELEASE MEASURES

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

## 7. HANDLING AND STORAGE

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### HANDLING PRECAUTIONS

- Do not pour or spill near open flame.
- Remove pets, birds and cover fish aquariums before spraying.
- Do not breath spray mist.
- Do not apply directly to food.
- Do not apply space spray while food processing is underway.
- Except in Federally inspected meat and poultry plants, food processing operations do not have to be stopped while applying a wet spray with care and in accordance with the directions given on the label.
- When using in animal quarters, do not apply directly to food, water or food supplements.

### STORAGE PRECAUTIONS

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

### WORK/HYGIENIC PRACTICES

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.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### EYE/FACE PROTECTION

Chemical goggles.

### SKIN PROTECTION

Impermeable gloves.

### RESPIRATORY PROTECTION

A mask or respirator of a type recommended by the US Bureau of Mines to give adequate protection against this material.

### OTHER/GENERAL PROTECTION

Clean, body covering clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### APPEARANCE

Yellow liquid

### ODOR

Very mild solvent odor.

### BASIC PHYSICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**SPECIFIC GRAVITY:** 0.809 @ 20°C

**SOLUBILITY (H<sub>2</sub>O):** Insoluble

## 10. STABILITY AND REACTIVITY

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**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

## 11. TOXICOLOGICAL INFORMATION

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### EYE EFFECTS

Non-irritating

### SKIN EFFECTS

**Irritation:** Mildly irritating

**Absorption:** LD<sub>50</sub> > 3,000 mg/kg

### ACUTE ORAL EFFECTS

LD<sub>50</sub> > 3,000 mg/kg

### ACUTE INHALATION EFFECTS

4-Hour LC<sub>50</sub> > 7.5 mg/L

1-Hour equivalent LC<sub>50</sub> > 30 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.

## 11. TOXICOLOGICAL INFORMATION

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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 for 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.

## 12. ECOLOGICAL INFORMATION

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### OTHER ENVIRONMENTAL INFORMATION

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 areas treated. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters. Shrimp and crab may be killed at application rates recommended on label. Do not apply where these are important resources.

## 13. DISPOSAL CONSIDERATIONS

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**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 in several layers of newspaper and discard in trash.

## 14. TRANSPORT INFORMATION

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### 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)

**NOTE:** *This product is not regulated by DOT when shipped in quantities less than 5 gallons.*

## 15. REGULATORY INFORMATION

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### SARA TITLE III NOTIFICATIONS AND INFORMATION

#### SARA TITLE III - SECTION 313 SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372:

CAS NUMBER	51-03-6
INGREDIENT NAME	Piperonyl butoxide
PERCENT BY WEIGHT	= 12.5

This information must be included on all MSDSs that are copied and distributed for this material.

## 15. REGULATORY INFORMATION - Cont.'d

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### REGULATED INGREDIENTS

INGREDIENT: Pyrethrins  
CAS NUMBER: 8003-34-7  
PERCENT BY WEIGHT: = 2.5

### Regulations:

Illinois Toxic Substance  
New Jersey Workplace Hazardous Substance  
Pennsylvania Environmental Hazardous Substance  
Pennsylvania Workplace Hazardous Substance

INGREDIENT: Piperonyl butoxide  
CAS NUMBER: 51-03-6  
PERCENT BY WEIGHT: = 12.5

**Regulations:** SARA Section 313 Toxic Chemical

## 16. OTHER INFORMATION

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### HMIS HAZARD RATING

- HEALTH: 1 Slight  
- FIRE: 2 Moderate  
- REACTIVITY: 0 Negligible  
- PROTECTION: G

### NFPA HAZARD RATING

- HEALTH: 1 Slight  
- FIRE: 2 Moderate  
- REACTIVITY: 0 Negligible  
- SPECIAL:

**MSDS IDENTIFICATION CODE/NUMBER:**  
E72010KF

**PREPARED BY:** Regulatory Department  
**PHONE:** (800)438-5837  
**SUPERCEDES MSDS DATED:** 01/13/95

**DATE AND TIME OF PRINTING:** 04/05/99  
10:40:00

### DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

*This information is provided in good faith but without expressed or implied warranty. Buyer assumes all responsibility for safety and use not in accordance with label directions.*