Date Issued: Supersedes:

MATERIAL SAFETY DATA SHEET ZOECON GENTROL® IGR CONCENTRATE

| Manufacturer: | Wellmark International |
|---------------------------------|---|
| Address: | 1501 E. Woodfield Rd., Suite 200-West, Schaumburg, IL 60173 |
| Emergency Phone: | 1-800-248-7763 |
| Transportation Emergency Phone: | CHEMTREC: 1-800-424-9300 |

1. CHEMICAL PRODUCT INFORMATION

| Product Name: | Zoecon Gentrol® IGR Concentrate |
|------------------------|--|
| Chemical Name/Synonym: | (S)-Hydroprene: (Ethyl(2E,4E,7S)-3,7,11-trimethyl-2,4-dodecadienoate |
| Chemical Family: | Isoprenoid |
| Formula: | C17 H30 O2 |
| EPA Registration No.: | 2724-351 |
| RF Number: | 259 |

2. COMPOSITION / INFORMATION ON INGREDIENTS

| Component (chemical, common name) | <u>CAS</u> <u>Number</u> | <u>Weight</u> | Tolerance |
|---|-----------------------------|---------------|------------------|
| (S)-Hydroprene: (Ethyl(2E,4E,7S)-3,7,11-trimethyl-2,4- dodecadienoate) | 65733-18-8 | 9.0% | Not established |
| Inert ingredients (non hazardous and/or trade secret): | | 91.0% | Not established |

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENTS

CAUTION: Keep out of the reach of children. Avoid contact with eyes, skin or clothing. Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Wash thoroughly with soap and water after handling.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

No known health conditions are aggravated by exposure to this product.

| PRIMARY ROUTE OF | ENTRY <u>De</u> | rmal/Eye: Yes | <u>Oral:</u> No | Inhalation: No |
|------------------|-----------------|--------------------------------|-------------------------|-------------------------|
| ACUTE TOXICITY | Oral: | No specific hazard ic | dentified. | |
| | Dermal: | No specific hazard io | dentified. May cause mo | derate skin irritation. |
| Inhalation: | | No specific hazard identified. | | |
| | | | | |

OTHER TOXICOLOGICAL INFORMATION

| Skin Irritation: | Avoid contact with skin. May cause skin irritation. |
|------------------|---|
| Eye Irritation: | Avoid contact with eyes. May cause moderate eye irritation. |
| Sensitizer: | ls not a sensitizer. |

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 | Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person. | |
| Inhaled | Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. | |
| Note to Physician: | Contains petroleum distillates. Vomiting may cause aspiration pneumonia. | |

5. FIRE FIGHTING MEASURES

| NFPA Rating: | Health: | 2 | Fire: | 2 | Reactivity: | 0 |
|---------------------------------|--|--------------------------|---------------|---------------|-----------------|-----------------|
| Flammability Class: | Class IIIB | (flash point ≥ 2 | 200°F) | | | |
| Flash Point: | 200° F | | | | | |
| Explosive Limits (% of Volume): | Not knowr | ı | | | | |
| Extinguishing Media: | CO2, foan | n, water | | | | |
| Special Protective Equipment: | 0 | s should wear apparatus. | full protecti | ive equipmer | t including sel | fcontained |
| Fire Fighting Procedures: | Normal proseed as a construction of the second seco | ocedures. Do r | not allow fir | efighting wat | er to escape ir | to waterways or |
| Combustion Products: | Oxides of | carbon and ox | ides of sulf | ur. | | |
| Unusual Fire/Explosion Hazards: | None know | wn | | | | |
| 6. ACCIDENTAL RELEASE MEASURE | ES | | | | | |

| Contain spill and do not allow to enter waterways. material and place in a container for disposal. | Soak up with absorbent |
|--|------------------------|
| Clay granules, sawdust, dirt, or equivalent. | |
| Strong oxidizers. | |
| | , |

7. HANDLING AND STORAGE

| Handling: | Avoid inhalation of vapors and contact with skin, eyes, and clothing. Wash hands, arms and face thoroughly with soap and water after handling product. Do not use this product in or on an electrical portion of equipment due to possibility of shock hazard. |
|-----------|--|
| Storage: | Keep away from children. Store in cool area. Do not contaminate water. food. |

Storage: Keep away from children. Store in cool area. Do not contaminate water, food, or feed by storage.

8. EXPOSURE CONTROL / PERSONAL MEASURES

| Exposure Limits: | Not established |
|--------------------------------|---|
| Ventilation: | Use with adequate ventilation. |
| Personal Protective Equipment: | If prolonged exposure is anticipated, it is recommended for handlers to wear impermeable gloves, goggles and other protective clothing to prevent skin contact. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance and Odor: | Straw colored liquid with mild petroleum solvent odor. |
|--------------------------|--|
| Boiling Point: | Not known |
| Melting Point: | Not applicable |
| Vapor Pressure (mm Hg): | Not known |
| Vapor Density (Air = 1): | Not known |
| Specific Gravity: | 0.85 |
| Bulk Density: | 7.1 lbs/gal |
| Solubility: | Emulsifies in water |
| Evaporation Rate: | Not known |
| pH: | 6.22 |

10. STABILITY AND REACTIVITY

| Stability: | Stable |
|--|------------------------------|
| Reactivity: | Not reactive |
| Incompatibility w/ Other Materials: | Strong Oxidizers |
| Decomposition Products: | Carbon oxides, sulfur oxides |
| Hazardous Polymerization: | Will not occur |

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Acute oral toxicity: LD50 >5100 mg/kg Acute dermal toxicity: LD50 >2100 mg/kg Acute inhalation toxicity: 4-Hour LC50 >7.2 mg/L Skin irritation: Moderate irritant Eye irritation: Mild irritant

SUBCHRONIC TOXICITY [Specific to Active Ingredient(s)]

In a 90-day subchronic feeding study in rats, the NOEL was 50 mg/kg/day. Changes in body weight and organ weights were observed at higher dose levels. Liver and ovaries were identified as target organs.

No immunotoxic effects were observed in a study in mice when (S)-Hydroprene was fed (diet) at dose levels up to and including 1,200 mg/kg/day, continuously for 30 days.

CHRONIC TOXICITY/CARCINOGENICITY [Specific to Active Ingredient(s)]

A chronic toxicity/carcinogenicity study in rats identified ovaries and the thyroid as target organs. An increased incidence of benign thyroid tumors was present in male rats only at the highest dose tested. Increased weights and macroscopic and microscopic changes in the ovaries were observed at the highest doses. NOEL for males was 1,000 ppm and for females 100 ppm.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Specific to Active Ingredient(s)]

Parental reproductive performance in rats remained unaffected up to a dose level of 7,500 ppm, when evaluated in a 2generation reproduction/toxicity study. Histologically, all females of 7,500 ppm dose group had cytoplasmic vacuolation in the ovaries, but without affecting reproductive performance. The NOEL for pup development was 1,500 ppm. No teratogenic or fetotoxic effects were observed in rats when pregnant animals were exposed (gavage) to (S)-Hydroprene at levels up to 1,000 mg/kg/day (highest dose tested). NOEL for maternal toxicity was 1,000 mg/kg/day.

MUTAGENICITY [Specific to Active Ingredient(s)]

(S)-Hydroprene has been found negative for mutagenicity potential. It has tested negative in: 1) Ames Test, 2) in vivo cytogenetic assay, 3) micronucleus test (in vivo) and in 4) test for DNA effects - UDS in rats (in vitro).

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE [Active Ingredients Only]

Hydrolysis: Not available

Photolysis: Not available

Soil half life: Not available

Water solubility: <2 ppm, emulsifies in water

ECOTOXICITY [Active Ingredients Only]

Acute Toxicity:

Fish: Not available; Aquatic invertebrates: Not available

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food, or feed by disposal. **Pesticide Disposal**: Wastes resulting from the use of this product may be disposed of at an approved waste disposal facility. **Container disposal**: Do not reuse empty container. Securely wrap original container in several layers of newspaper and discard in trash.

14. TRANSPORT INFORMATION

DOT49CFR Description: Not regulated

Freight Classification: Insecticides, other than poison, N.O.I. NMFC-102120

15. REGULATORY INFORMATION

CERCLA (Superfund): Not regulated as hazardous

RCRA: Not regulated as hazardous

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes (Irritant) Delayed Health: No

Fire: No

Sudden Pressure: No

Reactivity: No

The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all inclusive and the manner and conditions of use and handling may involve other or additional considerations.