

MATERIAL SAFETY DATA SHEET
APEX®

Manufacturer: Wellmark International
Address: 1100 East Woodfield Road, Suite 500 Schaumburg, IL 60173
Emergency Phone: 1(800)-248-7763
Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Apex®
Chemical Name/Synonym: (S)-Methoprene: Isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate
Chemical Family: Terpenoid
Formula: C₁₉ H₃₄ O₃
EPA Registration No.: 2724-427
RF Number: 9811

2. COMPOSITION / INFORMATION ON INGREDIENTS

| <u>Component (chemical, common name)</u> | <u>CAS Number</u> | <u>Weight</u> | <u>Tolerance</u> |
|--|-------------------|---------------|------------------|
| (S)- Methoprene: Isopropyl (2E,4E,7S)-11-Methoxy-3,7,11-trimethyl-2,4-dodecadienoate | 65733-16-6 | 33.6%% | Not applicable |
| Other ingredients: (nonhazardous and/or trade secret): | | 66.4%% | Not established |
| Hydrotreated light petroleum distillate | 64742-47-8 | | Not established |

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENT

Caution: Keep out of the reach of children. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

No adverse reactions have resulted from normal human exposure during research and testing.

PRIMARY ROUTE OF ENTRY Dermal/Eye: Yes Oral: No Inhalation: Yes

ACUTE TOXICITY Oral: LD50 (rat): >34,000 mg/kg (HDT) (Based on (S)-Methoprene)
Dermal: LD50 (rabbit): >2,000 mg/kg (HDT) (Based on (S)-Methoprene)
Inhalation: LC50 (rat)> 210mg/l air (Based on RS-Methoprene)

OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: Non-irritating (rabbit) (Based on (S) Methoprene)
Eye Irritation: Practically non-irritating (rabbit) (Based on (S) Methoprene)
Sensitizer: Not a sensitizer (guinea pig) (Based on (RS) Methoprene)

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 eyes. 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.
- Inhalation:** Move to well ventilated area. Clear airway and support respiration if necessary. Seek medical attention.
- Note to Physician:** Contains petroleum distillate – vomiting may cause aspiration pneumonia.

5. FIRE FIGHTING MEASURES

- NFPA Rating:** **Health: 0** **Fire: 2** **Reactivity: 0**
- Flammability Class:** Combustible liquid
- Flash Point:** 191°F, 88.3°C
- Explosive Limits (% of Volume):** Upper: Unknown; Lower: Unknown
- Extinguishing Media:** Foam, CO2, dry chemical, water, fog
- Special Protective Equipment:** Wear protective clothing, eye protection, and self-contained breathing apparatus.
- Fire Fighting Procedures:** Normal procedures. Do not allow product to enter drainage system or waterways.
- Combustion Products:** Carbon monoxide and carbon dioxide
- Unusual Fire/Explosion Hazards:** Explosive hazards are moderate when vapors are exposed to heat or flame.

6. ACCIDENTAL RELEASE MEASURES

- Steps to be taken:** Cover with inert absorbent. Avoid contact with heat or open flame. Avoid breathing vapors. Provide ventilation and avoid skin contact. Place all material in metal drum that can be effectively sealed. Do not contaminate surface or domestic water supply.
- Absorbents:** Clay granules, sawdust, dirt or equivalent.
- Incompatibles:** Oxidizers

7. HANDLING AND STORAGE

- Handling:** Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of the gloves before removing. Then wash thoroughly and change into clean clothing.
- Storage:** Do not contaminate water, food, or feed by storage. Store in a cool dry place.

8. EXPOSURE CONTROL / PERSONAL MEASURES

- Exposure Limits:** Not Applicable
- Ventilation:** Use with adequate ventilation.
- Engineering Controls:** When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6), the

handler PPE requirements may be reduced or modified as specifies in the WPS.

Personal Protective Equipment: Mushroom applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves, such as neoprene rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), barrier laminate, or viton (≥ 14 mils). Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Clear, light amber liquid
Boiling Point: greater than 218°C
Melting Point: Not applicable
Vapor Pressure (mm Hg): < 0.1 mm Hg
Vapor Density (Air = 1): < 5.9
Specific Gravity: 0.858
Bulk Density: 7.1 lbs/gal
Solubility: Forms emulsion in water
Evaporation Rate: < 0.01 (n-butyl acetate = 1.0)
pH: 6.69

10. STABILITY AND REACTIVITY

Stability: Stable
Reactivity: Non-reactive
Incompatibility w/ Other Materials: Oxidizers
Decomposition Products: Carbon monoxide, carbon dioxide
Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

CHRONIC TOXICITY [Based on (RS) Methoprene]

Methoprene is not considered a carcinogen. The NOEL for non-carcinogen effects in an 18-month mouse study was 250ppm.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Based on (RS) Methoprene]

Methoprene is not a teratogenic compound. The NOEL for maternal and embryo toxicity in rabbits was 200/mg/kg/day. The NOEL for reproductive effects in rats was 500 ppm.

MUTAGENICITY [Based on (RS) Methoprene]

Methoprene is not a mutagenic compound.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE [Based on (RS) Methoprene]

Hydrolysis: T1/2 > 4 weeks)

Photolysis: T1/2 < 10 hours)

Soil half life: ~ 10 days)

Water solubility: < 2 ppm)

ECOTOXICITY [Based on (S) Methoprene]

Acute Toxicity: fish:LC50 (trout): 760 ppb, (bluegill): > 370 ppb ;
aquatic invertebrates:LC50 (Daphnia): 360 ppb

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food, or feed by disposal. **Pesticide Disposal** –Waste resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal** – **[Metal Containers]** 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. **[Plastic Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[Glass Containers]:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

14. TRANSPORT INFORMATION

DOT49CFR Description:

Not Applicable

Freight Classification:

Insecticides N.O.I. O/T Poison NMFC 1-120120 CL.60

15. REGULATORY INFORMATION

CERCLA (Superfund):

Ninate 401-A (dodecylbenzene sulfonic acid, calcium salt) – RQ = 10 lbs.
Cas#26264-06-2

RCRA:

Regulated due to ignitability (D001)

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes (irritation)

Delayed Health: No

Fire: Yes (combustible liquid)

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.