

**MATERIAL SAFETY DATA SHEET**  
**APEX®**

**Manufacturer:** Wellmark International  
**Address:** 1501 East Woodfield Road, 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:** Apex®  
**Chemical Name/Synonym:** (S)-Methoprene: Isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate  
**Chemical Family:** Terpenoid  
**Formula:** C<sub>19</sub> H<sub>34</sub> O<sub>3</sub>  
**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): >5,100 mg/kg bw  
   Dermal:     LD50 (rabbit): >2,100 mg/kg bw  
   Inhalation:     LC50 (rat)> 5.19 mg/L air (S)-Methoprene

## OTHER TOXICOLOGICAL INFORMATION

**Skin Irritation:** Moderately irritating  
**Eye Irritation:** Mildly irritating  
**Sensitizer:** Not a dermal 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 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 ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  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** –Wastes 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:** Not Regulated

### 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.*