MATERIAL SAFETY DATA SHEET

DIACON - D

Manufacturer: Wellmark International
Address: 1501 East Woodfield Road, Suite 200-West Schaumburg, IL 60173
Emergency Phone: 1-800-347-8272
Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Diacon - D
Chemical Name/Synonym: (S)-Methoprene: Isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate
Chemical Family: Terpenoid
Formula: C_{19}H_{34}O_{3}
EPA Registration No.: 2724-788
RF Number: 2047

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component (chemical, common name)</th>
<th>CAS Number</th>
<th>Weight</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(S)-Methoprene: Isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate</td>
<td>65733-16-6</td>
<td>0.80%</td>
<td>Not established</td>
</tr>
</tbody>
</table>

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENTS
KEEP OUT OF THE REACH OF CHILDREN
CAUTION
HARMFUL IF INHALED OR ABSORBED THROUGH THE SKIN
PROLONGED OR FREQUENT REPEATED SKIN CONTAC MAY CAUSE ALLERGIC REACTIONS
CAUSES MODERATE EYE IRRITATION
AVOID BREATHING DUST OR INGESTION

PRIMARY ROUTE OF ENTRY

| Dermal/Eye: | Yes. |
| Oral: | No. |
| Inhalation: | Yes. |

ACUTE TOXICITY

| Oral: | Harmful if swallowed. |
| Dermal: | Harmful if absorbed through skin. |
| Inhalation: | Avoid breathing dust. Harmful if inhaled. |
OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: Avoid contact with skin. Slightly irritating.
Eye Irritation: Avoid contact with eyes. Causes moderate eye irritation.
Sensitizer: Not available.

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 immediately for treatment advice.

Skin: Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

Ingestion: Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by poison control center or doctor. Do not give anything by mouth to an unconscious person.

Inhalation: Remove person to fresh air. If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible.

Note to Physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

NFPA Rating: Health: 2  Fire: 2  Reactivity: 0
Flammability Class: Combustible solid.
Flash Point: Does not flash.
Extrusive Limits (% of Volume): N/A.
Extinguishing Media: Water, foam, dry chemical.
Special Protective Equipment: Firefighters should wear protective clothing, eye protection, and self contained breathing apparatus.
Fire Fighting Procedures: Normal procedures. Do not allow run-off to enter waterways inhabited by aquatic organisms.
Combustion Products: None known.
Unusual Fire/Explosion Hazards: Organic dusts can form explosive dust/air mixtures. Care should be taken to minimize dust accumulations and formation of dust clouds.

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken: Sweep up material and place in a container for disposal. Do not allow spill to enter waterways inhabited by aquatic organisms.
Absorbents: None necessary due to product form and packaging.
Incompatibles: Strong acids, oxidizing agents and caustics.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling.
Storage: Store closed containers in a cool, dry place. Do not contaminate water, food or feed by storage.
8. EXPOSURE CONTROL / PERSONAL MEASURES

Exposure Limits: Not available.
Ventilation: Use with adequate ventilation.
Personal Protective Equipment: Handlers and applicators should wear, at a minimum, a dust mask, protective gloves and protective eyewear. If prolonged exposure is expected, or if nuisance dust concentrations exceed TLVs, it is recommended to wear a MSHA/NIOSH approved respirator, impervious gloves, chemical goggles or safety glasses with side shields.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Light tan colored powder; neutral odor similar to corn.
Boiling Point: Not available.
Melting Point: Not available.
Vapor Pressure (mm Hg): Not available.
Vapor Density (Air = 1): Not available.
Specific Gravity: 1.388 g/cc (intrinsic density).
Bulk Density: 26 lbs / cu. ft.
Solubility: 7% to 10%.
Evaporation Rate: Not available.
pH: 7 to 8.

10. STABILITY AND REACTIVITY

Stability: Stable.
Reactivity: Non-reactive.
Incompatibility w/ Other Materials: Strong acids, oxidizing agents and caustics.
Decomposition Products: Combustion product may be CO, NOx, or components typical of wood smoke.
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY
Skin irritation: Slightly irritating.
Eye irritation: Moderate eye irritant.
Oral LD50 (rat) : >34,000 mg/kg [Based on (RS)-Methoprene Technical]
Dermal LD50 (rabbit) : >2,000 mg/kg [Based on (RS)-Methoprene Technical]
LC50 (rat) : >5.19 mg/L air [Based on (RS)-Methoprene Technical]
Skin sensitization: Not a sensitizer (guinea pig) [Based on (RS)-Methoprene Technical]

CHRONIC TOXICITY [Based on (RS)-Methoprene Technical]
Methoprene is not considered a carcinogen. The NOEL for non-carcinogenic effects in an 18 month mouse study was 250 ppm.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Based on (RS)-Methoprene Technical]
Methoprene is not a teratogen. The NOEL for maternal and embryo toxicity in rabbits was 200 mg/kg/day. The NOEL for reproductive effects in rats was 2500 ppm.

MUTAGENICITY [Based on (RS)-Methoprene Technical]
Methoprene is not a mutagen.
12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE [Active Ingredients Only]

Hydrolysis:  $T_{1/2} > 4$ weeks.
Photolysis:  $T_{1/2} < 6$ hours.
Soil half life:  ~ 10 days.
Water solubility:  0.52 ppm.

ECOTOXICITY [Active Ingredients Only]

Acute Toxicity:  
- fish: LC$_{50}$ (trout): 760 ppb, (bluegill): > 370 ppb ((S)-Methoprene);
- aquatic invertebrates: LC$_{50}$ (Daphnia): 360 ppb ((S)-Methoprene)

13. DISPOSAL CONSIDERATIONS

Wastes resulting from use of this product should be disposed of in accordance with all federal, state and local requirements.  For additional regulatory information, see section 15 of this document.

14. TRANSPORT INFORMATION

DOT49CFR Description:  Not regulated as hazardous by D.O.T.
Freight Classification:  Insecticides, NOI other than poison in boxes or drums. NMFC 102120.

15. REGULATORY INFORMATION

CERCLA (Superfund):  Not regulated.
RCRA:  Not regulated as hazardous.

SARA 311/312 HAZARD CATEGORIES

Immediate Health:  Yes.
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.