SECTION 1: Identification

1.1. Identification
Product form: Mixture
Trade name: Apex
Synonyms: 01130; Apex - Mushrooms; EPA Reg. No.: 2724-427; RF-9811 EC

1.2. Recommended use and restrictions on use
Recommended use: Insect growth regulator.
Restrictions on use: Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not use or store near heat or open flame. Do NOT take internally. Use only outdoors or in a well-ventilated area.

1.3. Supplier
Wellmark International
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173 - United States
www.starbarproducts.com

1.4. Emergency telephone number
Emergency number: 1-800-248-7763
1-800-424-9300 - CHEMTREC
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS-US classification
- Flammable liquids Category 4: Combustible liquid
- Acute toxicity (inhalation) Category 4: Harmful if inhaled
- Skin corrosion/irritation Category 2: Causes skin irritation
- Serious eye damage/eye irritation Category 2A: Causes serious eye irritation
- Specific target organ toxicity (single exposure) Category 3: May cause drowsiness or dizziness
- Aspiration hazard Category 1: May be fatal if swallowed and enters airways

2.2. GHS Label elements, including precautionary statements
GHS US labeling
Hazard pictograms (GHS US): ! (GHS07) ⚠ (GHS08)

Signal word (GHS US): Danger
Hazard statements (GHS US):
- Combustible liquid
- May be fatal if swallowed and enters airways
- Causes skin irritation
- Causes serious eye irritation
- Harmful if inhaled
- May cause drowsiness or dizziness

Precautionary statements (GHS US):
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Wash hands, forearms and face thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves/protective clothing/eye protection/face protection.
- If swallowed: Immediately call poison control or a doctor.
- If on skin: Wash with plenty of water.
- If inhaled: Remove person to fresh air and keep comfortable for breathing.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Call a poison center or doctor if you feel unwell.
- Do NOT induce vomiting.
2.3. Other hazards which do not result in classification


2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(s)-Methoprene Technical</td>
<td>(CAS-No.)  65733-16-6</td>
<td>33.6</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>(CAS-No.)  64742-47-8</td>
<td>48.26</td>
</tr>
<tr>
<td>Butylated hydroxytoluene</td>
<td>(CAS-No.)  128-37-0</td>
<td>1</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>(CAS-No.) N/A</td>
<td>Balance</td>
</tr>
</tbody>
</table>

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact: IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. If eye irritation persists: Get medical advice and attention.

First-aid measures after ingestion: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Call a physician immediately. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation: Harmful if inhaled. May cause drowsiness or dizziness.

Symptoms/effects after skin contact: Causes skin irritation.

Symptoms/effects after eye contact: Causes serious eye irritation.

Symptoms/effects after ingestion: Aspiration Hazard - may be fatal if swallowed and enters airways.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media


5.2. Specific hazards arising from the chemical

Fire hazard: Combustible liquid. Containers may explode when heated.

Reactivity: The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions: Do not allow fire fighting water to escape into waterways or sewers. Eliminate all ignition sources if safe to do so. Do not use direct stream of water. A direct stream of water may spread fire. Ventilate closed spaces before entering. Do not breathe gas/fumes/vapor/spray. Stay upwind.

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Emergency procedures: No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapors/spray.

6.1.2. For emergency responders
Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.
Emergency procedures: ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate unnecessary personnel. Stop leak if safe to do so. Ventilate area. Stay upwind. Wear appropriate personal protective equipment, avoid direct contact.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal. Wear appropriate personal protective equipment, avoid direct contact.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
Hygiene measures: Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed. Keep from freezing. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Butylated hydroxytoluene (128-37-0)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
</tr>
<tr>
<td>ACGIH</td>
<td>Remark (ACGIH)</td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls
Appropriate engineering controls: Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.
Environmental exposure controls: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment
Hand protection: Wear chemically resistant protective gloves.
Eye protection: Chemical goggles or face shield
Skin and body protection: It is recommended for handlers to wear appropriate clothing to prevent skin contact including long sleeves, long pants, socks and shoes.
Respiratory protection: In case of insufficient ventilation, use NIOSH approved respiratory protection.
SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear light amber liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Light amber</td>
</tr>
<tr>
<td>Odor</td>
<td>Chemical-like</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>6.69 @ 25 °C (77 °F)</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 88 °F (&gt;62.8 °C)</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.858</td>
</tr>
<tr>
<td>Bulk density</td>
<td>0.858 g/cm³</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>0.012 Pascal-sec (Pa.s, Pas)</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Excessive heat > 110° F. Keep away from fire. No flames, no sparks. Eliminate all sources of ignition. Direct sunlight. Do not freeze.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. May decompose upon heating to produce toxic vapors/gases.
SECTION 11: Toxicological information

11.1. Information on toxicological effects

**Apex**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral</td>
<td>&gt; 5100 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 2100 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>&gt; 2.009 mg/l/4h</td>
</tr>
</tbody>
</table>

**GHS-US Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>Skin corrosion/irritiation</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cells mutagen</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicant</td>
<td>May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>(single exposure)</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicant</td>
<td>Not classified</td>
</tr>
<tr>
<td>(repeated exposure)</td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
</tbody>
</table>

**Potential health effects**

**Inhalation**

**Acute**

May cause drowsiness and dizziness. Harmful if inhaled.

**Skin**

**Acute**

Causes skin irritation.

**Eye**

**Acute**

Causes serious eye irritation.

**Ingestion**

Aspiration hazard - small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema. Harmful if swallowed.

**Mutagenicity**

(s)-Methoprene has been tested and found negative for mutagenicity potential.

**Carcinogenicity**

(s)-Methoprene is not classified as a carcinogen by NTP, IARC or OSHA.

**Reproductive Effects**

(s)-Methoprene is not a reproductive toxin and does not cause birth defects.

SECTION 12: Ecological information

12.1. Toxicity

**(s)-Methoprene Technical (65733-16-6)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Acute fish 1</td>
<td>0.76 mg/l (Exposure time: 96h - Rainbow trout)</td>
</tr>
<tr>
<td>LC50 Acute fish 2</td>
<td>&gt; 0.37 mg/l (Exposure time: 96h - Blue gill)</td>
</tr>
<tr>
<td>LC50 Acute crustacea 1</td>
<td>0.11 mg/l (Exposure time: 96h - Mysid shrimp)</td>
</tr>
<tr>
<td>LC50 Acute crustacea 2</td>
<td>0.36 mg/l (Exposure time: 48h - Daphnia magna)</td>
</tr>
<tr>
<td>NOEC Chronic fish 1</td>
<td>0.048 mg/l (Fathead minnow)</td>
</tr>
<tr>
<td>NOEC Chronic crustacea 1</td>
<td>0.014 mg/l (Mysid shrimp)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

**(s)-Methoprene Technical (65733-16-6)**

Persistence and degradability

(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

12.3. Bioaccumulative potential

No additional information available
12.4. Mobility in soil

_(s)-Methoprene Technical (65733-16-6)_

Mobility in soil: Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>UN number</th>
<th>Proper Shipping Name</th>
<th>Transport hazard class(es)</th>
<th>Packing group</th>
<th>Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>Not applicable</td>
</tr>
<tr>
<td>IMDG</td>
<td>UN3082</td>
<td>Packaging greater than 5 L: Environmentally Hazardous substance, Liquid, N.O.S. (S-Methoprene)</td>
<td>9</td>
<td>III</td>
</tr>
<tr>
<td>IATA</td>
<td>UN3082</td>
<td>Environmentally Hazardous substance, Liquid, N.O.S. (S-Methoprene)</td>
<td>9</td>
<td>III</td>
</tr>
</tbody>
</table>

SECTION 15: Regulatory information

15.1. US Federal regulations

- **Distillates (petroleum), hydrotreated light (64742-47-8)**
  - Listed on the United States TSCA (Toxic Substances Control Act) inventory
- **Butylated hydroxytoluene (128-37-0)**
  - Listed on the United States TSCA (Toxic Substances Control Act) inventory

**FIFRA Labelling**

- EPA Registration Number: 2724-427
- This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

  - **FIFRA Signal word**: Caution
  - **FIFRA Precautionary Statement**: KEEP OUT OF REACH OF CHILDREN.
  - **FIFRA Hazards to Humans and Domestic Animals**: 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.
  - **FIFRA First Aid**: If in eyes: 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. If on 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. If swallowed: 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. NOTE TO PHYSICIAN: Contains petroleum distillate - vomiting may cause aspiration pneumonia.

15.2. US State regulations

No additional information available

SECTION 16: Other information

Date of issue: 06 November 2014
Apex
Safety Data Sheet

Revision date : 10 May 2019
Supersedes : 20 September 2016

SDS US (GHS HazCom 2012) - CGP

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.