SAFETY DATA SHEET

Enforcer Dual Action Insect Killer

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : Enforcer Dual Action Insect Killer
EPA ID Number:  10807-161-40849
Material number : EDAIK17

Manufacturer or supplier's details
Company : Zep Commercial Sales & Service, a unit of Zep, Inc.
Address : 1310 Seaboard Industrial Blvd., NW
          Atlanta, GA 30318
Telephone : 404-352-1680

Emergency telephone numbers
For SDS Information : Compliance Services 1-877-428-9937
For a Medical Emergency : 877-541-2016 Toll Free - All Calls Recorded
For a Transportation Emergency : CHEMTREC: 800-424-9300 - All Calls Recorded.
In the District of Columbia 202-483-7616

Recommended use of the chemical and restrictions on use
Recommended use : Pesticide

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview
Appearance : Aerosol containing a liquefied gas
Colour : white
Odour : neutral

GHS Classification
Gases under pressure : Liquefied gas
Skin sensitisation : Category 1

GHS label elements
Hazard pictograms :

Signal word : Warning
Hazard statements : H280 Contains gas under pressure; may explode if heated.
H317 May cause an allergic skin reaction.

Precautionary statements : Prevention:
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
Storage:
P410 + P403 Protect from sunlight. Store in a well-ventilated place.
Disposal:
Dispose of contents/container in accordance with local regulation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS
Substance / Mixture: Mixture

Hazardous components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>butane</td>
<td>106-97-8</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>64742-47-8</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether</td>
<td>51-03-6</td>
<td>&gt;= 0.1 - &lt; 1</td>
</tr>
<tr>
<td>m-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate</td>
<td>52645-53-1</td>
<td>&gt;= 0.1 - &lt; 1</td>
</tr>
<tr>
<td>Pyrethrins and Pyrethroids</td>
<td>8003-34-7</td>
<td>&gt;= 0.1 - &lt; 1</td>
</tr>
</tbody>
</table>

The exact percentages of disclosed substances are withheld as trade secrets.

SECTION 4. FIRST AID MEASURES

General advice: Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled: If unconscious place in recovery position and seek medical advice.
Consult a physician after significant exposure.

In case of skin contact: If skin irritation persists, call a physician.
Wash off immediately with plenty of water for at least 15 minutes.
If on clothes, remove clothes.

In case of eye contact: Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
Rinse immediately with plenty of water for at least 15 minutes.

If swallowed: Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
DO NOT induce vomiting unless directed to do so by a
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SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media:
- Water spray
- Carbon dioxide (CO2)
- Dry powder
- Foam

Unsuitable extinguishing media:
- High volume water jet

Specific hazards during firefighting:
- Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products:
- Carbon dioxide (CO2)
- Carbon monoxide
- Smoke

Specific extinguishing methods:
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information:
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters:
- Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
- Use personal protective equipment.

Environmental precautions:
- Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.
- If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up:
- Sweep up or vacuum up spillage and collect in suitable container for disposal.
- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling:
- Avoid exposure - obtain special instructions before use.
- Avoid contact with skin and eyes.
- For personal protection see section 8.
- Smoking, eating and drinking should be prohibited in the

physician or poison control center. Take victim immediately to hospital.
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application area.
Do not breathe vapours or spray mist.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.
Always replace cap after use.

Conditions for safe storage

BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Keep in a dry, cool and well-ventilated place.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid

Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>butane</td>
<td>106-97-8</td>
<td>TWA</td>
<td>800 ppm 1,900 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>64742-47-8</td>
<td>TWA</td>
<td>800 ppm 1,900 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>64742-47-8</td>
<td>TWA</td>
<td>500 ppm 2,000 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>TWA</td>
<td>400 ppm 1,600 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>TWA</td>
<td>1,000 ppm ACGIH</td>
<td></td>
</tr>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>TWA</td>
<td>1,000 ppm 1,800 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>TWA</td>
<td>1,000 ppm 1,800 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>TWA</td>
<td>1,000 ppm 1,800 mg/m³</td>
<td>OSHA P0</td>
</tr>
</tbody>
</table>

Engineering measures

effective ventilation in all processing areas

Personal protective equipment

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection
Remarks
The suitability for a specific workplace should be discussed with the producers of the protective gloves.

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Eye protection : Ensure that eyewash stations and safety showers are close to the workstation location.
Safety glasses

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Aerosol containing a liquefied gas

Colour : white
Odour : neutral
Odour Threshold : No data available
pH : Not applicable
Melting point/freezing point : No data available
Boiling point : No data available
Flash point : No data available
Evaporation rate : No data available
Flammability (solid, gas) : The product is not flammable.

Upper explosion limit : No data available
Lower explosion limit : No data available
Vapour pressure : No data available
Relative vapour density : No data available
Density : No data available
Solubility(ies)

Water solubility : slightly soluble
Partition coefficient: n-octanol/water : No data available
Auto-ignition temperature : not determined
Thermal decomposition : No data available

Viscosity
Viscosity, kinematic : No data available
Heat of combustion : 12.23 kJ/g
SECTION 10. STABILITY AND REACTIVITY

Reactivity: Stable
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.
Conditions to avoid: Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Carbon dioxide (CO2) Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Carcinogenicity:
IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Acute toxicity

Product:
Acute oral toxicity: Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Acute inhalation toxicity: Acute toxicity estimate: > 10 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Components:
Butane:
Acute inhalation toxicity: LC50 Mouse: 1,237 mg/l
Exposure time: 2 h
Distillates (petroleum), hydrotreated light:
Acute oral toxicity: LD50 Rat: > 5,000 mg/kg

Acute inhalation toxicity: LC50 Rat: > 4.6 mg/l
Exposure time: 6 h

Acute dermal toxicity: LD50 Rat: > 2,000 mg/kg

propane:
Acute inhalation toxicity: LC50 Mouse: 1,237 mg/l
Exposure time: 2 h

LC50 Rat: 658 mg/l
Exposure time: 4 h

LC50 Rat: 1,355 mg/l

Skin corrosion/irritation

Product:
Remarks: May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation

Product:
Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

Respiratory or skin sensitisation

Product:
Remarks: Causes sensitisation.

Germ cell mutagenicity
No data available

Carcinogenicity
No data available

Reproductive toxicity
No data available

butane:
Distillates (petroleum), hydrotreated light:
propane:
2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether:
m-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:
Pyrethrins and Pyrethroids:
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STOT - single exposure
No data available

STOT - repeated exposure
No data available

Aspiration toxicity
No data available

Further information

Product:
Remarks: No data available

Components:
Distillates (petroleum), hydrotreated light:
Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential

Product:
Partition coefficient: n-octanol/water: Remarks: No data available

Components:
Butane:
Partition coefficient: n-octanol/water: Pow: 2.89

Mobility in soil
No data available

Other adverse effects
No data available

Product:
Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.

**Components:**
Distillates (petroleum), hydrotreated light:

Additional ecological information: No data available

### SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

**Waste from residues**: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

**Contaminated packaging**: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

### SECTION 14. TRANSPORT INFORMATION

**Transportation Regulation: 49 CFR (USA):**
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

**Transportation Regulation: IMDG (Vessel):**
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

**Transportation Regulation: IATA (Cargo Air):**
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

**Transportation Regulation: IATA (Passenger Air):**
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

**Transportation Regulation: TDG (Canada):**
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

### SECTION 15. REGULATORY INFORMATION
This product is regulated under the United States Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

**Pesticide Labeling Information Required Under U.S. FIFRA Regulations**
This chemical is a pesticide product registered by the 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, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**CAUTION**
Harmful if inhaled.
This pesticide is toxic to fish.
Observe label precautions.

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**
This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**
This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards**
- Sudden Release of Pressure Hazard
- Acute Health Hazard

**SARA 302**
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313**
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Prop 65**
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**The components of this product are reported in the following inventories:**

**TSCA**
- On TSCA Inventory

**DSL**
All components of this product are on the Canadian DSL

For information on the country notification status for other regions please contact the manufacturer’s regulatory group.

**Inventory Acronym and Validity Area Legend:**
- TSCA (USA), DSL (Canada), NDSL (Canada)

**SECTION 16. OTHER INFORMATION**
Further information

NFPA:

Flammability

Health

0

3

0

Special hazard.

HMIS III:

HEALTH

3

FLAMMABILITY

0

PHYSICAL HAZARD

2

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Hazard pictograms:

- Flammable
- Health hazard

Signal word: Warning

Hazard statements:
Contains gas under pressure; may explode if heated. May cause an allergic skin reaction.

Precautionary statements:

Prevention: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.
Response: IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/ attention. Wash contaminated clothing before reuse.
Storage: Protect from sunlight. Store in a well-ventilated place.
Disposal: Dispose of contents/container in accordance with local regulation.

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes.

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