

**A00442 ENF DUAL ACTION EDAIK17 20N17 STK**

Version 1.2

Revision Date 07/06/2018

Print Date 11/22/2018

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Material name : Enforcer Dual Action Insect Killer

EPA ID Number: 10807-161-40849

Material number : 000000000001047651

**Manufacturer or supplier's details**

Company : Zep Commercial Sales &amp; Service, a unit of Zep, Inc.

Address : 350 Joe Frank Harris Parkway, SE  
Emerson, GA 30137

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.

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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.

P412 Do not expose to temperatures exceeding 50 °C/ 122 °F.

**Disposal:**

P501 Dispose of contents/container in accordance with local regulation.

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous components**

| Chemical name   | CAS-No.    | Concentration [%] |
|---|------------|-------------------|
| butane  | 106-97-8   | >= 10 - < 20      |
| Distillates (petroleum), hydrotreated light                               | 64742-47-8 | >= 5 - < 10       |
| propane   | 74-98-6    | >= 3 - < 5        |
| m-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate | 52645-53-1 | >= 0.1 - < 1      |

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

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**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.  
If on skin, rinse well with water.  
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 with plenty of water.
- 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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physician or poison control center.  
Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed : Effects are immediate and delayed. Symptoms may include irritation, redness, pain, and rash. May cause an allergic skin reaction. Review section 2 of SDS to see all potential hazards.

Notes to physician : Treat symptomatically. Symptoms may be delayed.

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**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Water spray  
Carbon dioxide (CO<sub>2</sub>)  
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 (CO<sub>2</sub>)  
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.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Evacuate personnel to safe areas.  
Ensure adequate ventilation.

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).

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**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 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**

| Components                                     | CAS-No.    | Value type<br>(Form of exposure) | Control parameters /<br>Permissible concentration | Basis     |
|--|------------|----------------------------------|---|-----------|
| butane   | 106-97-8   | TWA                              | 800 ppm<br>1,900 mg/m <sup>3</sup>                | NIOSH REL |
|  |            | TWA                              | 800 ppm<br>1,900 mg/m <sup>3</sup>                | OSHA P0   |
|  |            | PEL                              | 800 ppm<br>1,900 mg/m <sup>3</sup>                | CAL PEL   |
| Distillates (petroleum),<br>hydrotreated light | 64742-47-8 | TWA                              | 500 ppm<br>2,000 mg/m <sup>3</sup>                | OSHA Z-1  |
|  |            | TWA                              | 400 ppm<br>1,600 mg/m <sup>3</sup>                | OSHA P0   |
|  |            | TWA (Mist)                       | 5 mg/m <sup>3</sup>                               | OSHA Z-1  |
|  |            | TWA (Mist)                       | 5 mg/m <sup>3</sup>                               | OSHA P0   |
|  |            | TWA (Mist)                       | 5 mg/m <sup>3</sup>                               | NIOSH REL |
|  |            | ST (Mist)                        | 10 mg/m <sup>3</sup>                              | NIOSH REL |
| propane  | 74-98-6    | PEL<br>(particulate)             | 5 mg/m <sup>3</sup>                               | CAL PEL   |
|  |            | TWA                              | 1,000 ppm   | ACGIH     |
|  |            | TWA                              | 1,000 ppm   | NIOSH REL |

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|  |  |     |                          |          |
|--|--|-----|--------------------------|----------|
|  |  |     | 1,800 mg/m3              |          |
|  |  | TWA | 1,000 ppm<br>1,800 mg/m3 | OSHA Z-1 |
|  |  | TWA | 1,000 ppm<br>1,800 mg/m3 | OSHA P0  |
|  |  | PEL | 1,000 ppm<br>1,800 mg/m3 | CAL PEL  |

**Engineering measures** : effective ventilation in all processing areas

**Personal protective equipment**

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection

Material

Remarks

: Protective gloves

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

Eye protection

: Access to clean water to rinse eyes must be available, options include: eye wash stations or showers, or eye wash bottles with pure water.

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.

When using do not eat or drink.

When using do not smoke.

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**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.

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|  |                     |
|--|---------------------|
| 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 | : Vapours may form explosive mixture with air.<br>No decomposition if stored and applied as directed. |
| Conditions to avoid                | : Heat, flames and sparks.<br>Extremes of temperature and direct sunlight.                            |
| Incompatible materials             | : Strong oxidizing agents   |
| Hazardous decomposition products   | : Carbon dioxide (CO <sub>2</sub> )<br>Carbon monoxide  |

**SECTION 11. TOXICOLOGICAL INFORMATION****Potential Health Effects**

|                              |   |
|------------------------------|---|
| Aggravated Medical Condition | : None known.   |
| Symptoms of Overexposure     | : Effects are immediate and delayed.<br>Symptoms may include irritation, redness, pain, and rash. |

**Carcinogenicity:**

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|              |   |
|--------------|---|
| <b>IARC</b>  | 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. |
| <b>ACGIH</b> | 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.            |
| <b>OSHA</b>  | No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.                                |
| <b>NTP</b>   | 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<br>Method: Calculation method  |
| Acute inhalation toxicity | : Acute toxicity estimate : 83.26 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: Calculation method |
| Acute dermal toxicity     | : Acute toxicity estimate : > 5,000 mg/kg<br>Method: Calculation method  |

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

|                           |  |
|---------------------------|--|
| Acute oral toxicity       | : LD50 Rat: > 5,000 mg/kg                    |
| Acute inhalation toxicity | : LC50 Rat: > 4.6 mg/l<br>Exposure time: 6 h |
| Acute dermal toxicity     | : LD50 Rat: > 2,000 mg/kg                    |

**Skin corrosion/irritation****Product:**

Remarks: May cause skin irritation in susceptible persons.

**Serious eye damage/eye irritation****Product:**

Remarks: May irritate eyes.

**Respiratory or skin sensitisation****Product:**

Remarks: Causes sensitisation.

**Germ cell mutagenicity**

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No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**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

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**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:**



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|                                   |   |
|-----------------------------------|---|
| 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 |
|-----------------------------------|---------------------|

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**SECTION 13. DISPOSAL CONSIDERATIONS**
**Disposal methods**

|                        |  |
|------------------------|--|
| Waste from residues    | : The product should not be allowed to enter drains, water courses or the soil.<br>Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Dispose of in accordance with local regulations. |
| Contaminated packaging | : Empty remaining contents.<br>Dispose of as unused product.<br>Do not re-use empty containers.<br>Do not burn, or use a cutting torch on, the empty drum.   |

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**SECTION 14. TRANSPORT INFORMATION**

|  |
|--|
| Transportation Regulation: 49 CFR (USA):<br>UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity |
|--|

|   |
|---|
| Transportation Regulation: IMDG (Vessel):<br>UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity |
|---|

|  |
|--|
| Transportation Regulation: IATA (Cargo Air):<br>UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity |
|--|

|  |
|--|
| Transportation Regulation: IATA (Passenger Air):<br>UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity |
|--|

|  |
|--|
| Transportation Regulation: TDG (Canada):<br>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

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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.

**TSCA list** : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

**EPCRA - Emergency Planning and Community Right-to-Know Act**
**CERCLA Reportable Quantity**

| Components                 | CAS-No.   | Component RQ (lbs) | Calculated product RQ (lbs) |
|----------------------------|-----------|--------------------|-----------------------------|
| Pyrethrins and Pyrethroids | 8003-34-7 | 1                  | 999                         |

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Gases under pressure  
Respiratory or skin sensitisation

**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.

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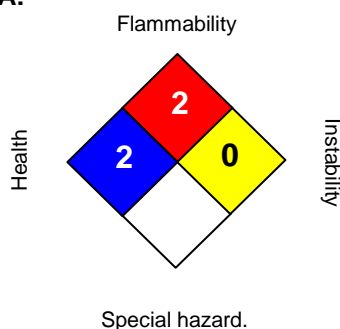
**The components of this product are reported in the following inventories:**

**DSL** This product contains one or several components that are not on the Canadian DSL nor NDSL.  
**TSCA** On TSCA Inventory

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:****HMIS III:**

|                        |          |
|------------------------|----------|
| <b>HEALTH</b>          | <b>2</b> |
| <b>FLAMMABILITY</b>    | <b>2</b> |
| <b>PHYSICAL HAZARD</b> | <b>2</b> |

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

**OSHA - GHS Label Information:**

Hazard pictograms :



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. Do not expose to temperatures exceeding 50 °C/ 122 °F.  
**Disposal:** Dispose of contents/container in accordance with local regulation.

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|-------------|------------|

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Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®, Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®, Rexodan®, Mykal™, and a number of private labeled brands.