SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : A07238 ZC SMOKE ELIMINATOR ZUSOE16 20N16
Material number : ZUSOE16

Manufacturer or supplier’s details
Company : 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

Recommended use of the chemical and restrictions on use
Recommended use : Air Care

Note: This product is labeled as a consumer product in accordance with the United States Consumer Product Safety Commission regulations. The warnings presented below in this Safety Data Sheet (SDS) comply with the 2012 OSHA Hazard Communication Standard (GHS - Globally Harmonized System of Classification and Labeling). The requirements for the labeling and warnings of consumer products may differ from those required for GHS based hazard communication.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Aerosol containing a liquefied gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>opaque</td>
</tr>
<tr>
<td>Odour</td>
<td>pleasant</td>
</tr>
</tbody>
</table>

GHS Classification

- Flammable aerosols : Category 2
- Gases under pressure : Liquefied gas
- Skin sensitisation : Category 1

GHS label elements

- Hazard pictograms : [Flammable gas, Inert gas, Caution]
- Signal word : Warning
- Hazard statements : H223 Flammable aerosol.
                      H280 Contains gas under pressure; may explode if heated.
H317 May cause an allergic skin reaction.

Precautionary statements:

Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
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.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal:
P501 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>alkanes, C12-14-iso-</td>
<td>68551-19-9</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>butane</td>
<td>106-97-8</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>&gt;= 3 - &lt; 5</td>
</tr>
<tr>
<td>dodecyl methacrylate</td>
<td>142-90-5</td>
<td>&gt;= 1 - &lt; 3</td>
</tr>
<tr>
<td>benzyl salicylate</td>
<td>118-58-1</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. Get medical attention.

If inhaled: If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact: Wash off immediately with plenty of water for at least 15 minutes.
Wash contaminated clothing before re-use. If skin irritation persists, call a physician. Remove contaminated clothing and shoes.

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

If swallowed: DO NOT induce vomiting unless directed to do so by a physician or poison control center. Keep respiratory tract clear. If conscious, drink plenty of water.

Most important symptoms and effects, both acute and delayed: Effects are immediate and delayed. Symptoms may include irritation, redness, pain, and rash. Effects are dependent on exposure (dose, concentration, contact time). 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.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

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. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.

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

A07238 ZC SMOKE ELIMINATOR ZUSOE16 20N16

Version 3.3 Revision Date 04/25/2018 Print Date 06/05/2019

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
- Use personal protective equipment.
- Ensure adequate ventilation.
- Remove all sources of ignition.
- Evacuate personnel to safe areas.
- Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

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

SECTION 7. HANDLING AND STORAGE

Advice on safe handling:
- Do not breathe vapours/dust.
- 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.
- 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.
- Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

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.
- No smoking.
- 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 (Form of exposure) | Control parameters / Permissible concentration | Basis |
--- | --- | --- | --- | --- |
butane | 106-97-8 | TWA | 800 ppm 1,900 mg/m³ | NIOSH REL |
 |  | TWA | 800 ppm 1,900 mg/m³ | OSHA P0 |
 |  | PEL | 800 ppm 1,900 mg/m³ | CAL PEL |
propane | 74-98-6 | TWA | 1,000 ppm | ACGIH |
 |  | TWA | 1,000 ppm 1,800 mg/m³ | NIOSH REL |
 |  | TWA | 1,000 ppm 1,800 mg/m³ | OSHA Z-1 |
 |  | TWA | 1,000 ppm 1,800 mg/m³ | OSHA P0 |
 |  | PEL | 1,000 ppm 1,800 mg/m³ | CAL PEL |

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

**Personal protective equipment**

**Respiratory protection**
- No personal respiratory protective equipment normally required.

**Hand protection**
- Skin should be washed after contact.

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

**Eye protection**
- Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.

**Skin and body protection**
- No special protection is required.

**Hygiene measures**
- When using do not eat or drink.
- When using do not smoke.
- Wash hands before breaks and at the end of workday.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**
- Aerosol containing a liquefied gas

**Colour**
- Opaque

**Odour**
- Pleasant

**Odour Threshold**
- No data available

**pH**
- Not applicable
Melting point/freezing point : Not applicable
Boiling point : not determined
Flash point : No data available
Evaporation rate : < 1
Flammability (solid, gas) : Flammable aerosol.
Vapour pressure : No data available
Density : 0.92 g/cm³
Solubility(ies) : soluble in hot water, soluble in cold water
Solubility in other solvents : slightly soluble
Partition coefficient: n-octanol/water : No data available
Auto-ignition temperature : not determined
Thermal decomposition : No data available
Viscosity : No data available
Heat of combustion : > 20 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. No decomposition if stored and applied as directed.
Conditions to avoid : Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatible materials : Oxidizing agents
Hazardous decomposition products : Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects
Aggravated Medical Condition: None known.

Symptoms of Overexposure: Effects are immediate and delayed. Symptoms may include irritation, redness, pain, and rash. Effects are dependent on exposure (dose, concentration, contact time).

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 on OSHA’s list of regulated carcinogens.
  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
  **Components:**
  benzyl salicylate: Acute oral toxicity: LD50 Oral Rat: 2,227 mg/kg

Skin corrosion/irritation
  **Product:**
  Remarks: May irritate skin.

Serious eye damage/eye irritation
  **Product:**
  Remarks: May irritate eyes.

Respiratory or skin sensitisation
  **Product:**
  Remarks: Causes sensitisation.

Germ cell mutagenicity
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

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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

Remarks: Pow: 2.89

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

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:**

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. Dispose of in accordance with local regulations.

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, flammable, 2.1, - Limited quantity

Transportation Regulation: IMDG (Vessel):
UN1950, AEROSOLS, FLAMMABLE, 2.1, - Limited quantity

Transportation Regulation: IATA (Cargo Air):
UN1950, Aerosols, flammable, 2.1, - Limited quantity

Transportation Regulation: IATA (Passenger Air):
UN1950, Aerosols, flammable, 2.1, - Limited quantity

Transportation Regulation: TDG (Canada):
UN1950, AEROSOLS, FLAMMABLE, 2.1, - 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

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
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**
- Flammable (gases, aerosols, liquids, or solids)
- 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.

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

- **DSL**: All components of this product are on the Canadian DSL Inventory
- **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)

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**SECTION 16. OTHER INFORMATION**

**Further information**

**NFPA:**
- **Flammability**: 3
- **Health**: 2
- **Special hazard**: 0

**HMIS III:**
- **HEALTH**: 2
- **FLAMMABILITY**: 3
- **PHYSICAL HAZARD**: 2

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic
OSHA - GHS Label Information:

Hazard pictograms: 

Signal word: Warning:

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

Precautionary statements:

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. 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. Take off contaminated clothing and wash it before reuse.

Storage: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Disposal: Dispose of contents/container in accordance with local regulation.

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