SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP SMOKE SCREEN AEROSOL AERO DZ
Material number : 000000000000018701

Manufacturer or supplier's details
Company : 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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview
Appearance : Aerosol containing a liquefied gas
Colour : opaque
Odour : pleasant

GHS Classification
Flammable aerosols : Category 2
Gases under pressure : Liquefied gas

GHS Label element
Hazard pictograms : 

Signal word : Warning

Hazard statements : H223 Flammable aerosol.
H280 Contains gas under pressure; may explode if heated.

Precautionary statements : Prevention:
P210 Keep away from heat/sparks/open flames/hot surfaces.
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.

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

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;= 1 - &lt; 5</td>
</tr>
<tr>
<td>dodecyl methacrylate</td>
<td>142-90-5</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice : Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If symptoms persist, call a physician.
If fumes from reactions are inhaled, move to fresh air immediately.

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

In case of eye contact : Immediately flush eyes for at least 15 minutes. Get medical attention.
Remove contact lenses.

If swallowed : DO NOT induce vomiting unless directed to do so by a physician or poison control center.
If a person vomits when lying on his back, place him in the recovery position.
If conscious, drink plenty of water.
SECTION 5. FIREFIGHTING MEASURES

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

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.

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.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling: Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.
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.

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>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>propane</td>
<td>74-98-6</td>
<td>TWA</td>
<td>1,000 ppm, 1,800 mg/m3</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm, 1,800 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm, 1,800 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm, 1,800 mg/m3</td>
<td>OSHA P0</td>
</tr>
</tbody>
</table>

Personal protective equipment

Respiratory protection:

- In case of insufficient ventilation, wear suitable respiratory equipment.
- Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection

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

Eye protection

- Eye wash bottle with pure water
- Tightly fitting safety goggles

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

- 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Aerosol containing a liquefied gas</td>
</tr>
<tr>
<td>Colour</td>
<td>opaque</td>
</tr>
<tr>
<td>Odour</td>
<td>pleasant</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Flammable aerosol</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>0.92 g/cm³</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>soluble in hot water, soluble in cold water</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>slightly soluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>not determined</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Heat of combustion</td>
<td>&gt; 20 kJ/g</td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>Stable</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Vapours may form explosive mixture with air. No decomposition if stored and applied as directed.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Heat, flames and sparks.</td>
</tr>
</tbody>
</table>
Extremes of temperature and direct sunlight.

Incompatible materials: Oxidizing agents

Hazardous decomposition products: Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Components:

butane:

Acute inhalation toxicity: LC50 Mouse: 1,237 mg/l
Exposure time: 2 h
LC50 Rat: 1,355 mg/l

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
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
No data available

Reproductive toxicity
No data available

alkanes, C12-14-iso-:
butane:
propane:
**dodecyl methacrylate:**

**STOT - single exposure**
No data available

**STOT - repeated exposure**
No data available

**Aspiration toxicity**
No data available

**Further information**
**Product:**
Remarks: No data available

---

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**
No data available

**Persistence and degradability**
No data available

**Bioaccumulative potential**
**Product:**

<table>
<thead>
<tr>
<th>Components</th>
<th>Partition coefficient: n-octanol/water</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>butane</td>
<td>Pow: 2.89</td>
<td></td>
</tr>
</tbody>
</table>

**Mobility in soil**
No data available

**Other adverse effects**
No data available

**Product:**

<table>
<thead>
<tr>
<th>Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances</td>
</tr>
</tbody>
</table>

**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.
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): ORM-D, CONSUMER COMMODITY

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

SECTION 15. REGULATORY INFORMATION

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: Fire Hazard
Sudden Release of Pressure Hazard

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SAFETY DATA SHEET

ZEP SMOKE SCREEN AEROSOL AERO DZ

Version 2.0  Revision Date 10/27/2015  Print Date 05/17/2016

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**: This product contains the following components that are not on the Canadian DSL nor NDSL
- **AICS**: On the inventory, or in compliance with the inventory
- **NZIoC**: Not in compliance with the inventory
- **PICCS**: Not in compliance with the inventory
- **IECSC**: On the inventory, or in compliance with the inventory

Inventory Acronym and Validity Area Legend:
- AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

**SECTION 16. OTHER INFORMATION**

Further information

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>HEATH 3</td>
</tr>
<tr>
<td>3</td>
<td>FLAMMABILITY 3</td>
</tr>
<tr>
<td>0</td>
<td>PHYSICAL HAZARD 2</td>
</tr>
</tbody>
</table>

Special hazard.

OSHA GHS Label Information:

- **Hazard pictograms**: 
  - Flammable aerosol. Contains gas under pressure; may explode if heated.

- **Signal word**: Warning:
- **Hazard statements**: Flammable aerosol. Contains gas under pressure; may explode if heated.
- **Precautionary statements**: Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.
- **Storage**: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122
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.

This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

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.