SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name: Zep Cold Galvanize Coating Aero DZ
Material number: 000000000000019001

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

<table>
<thead>
<tr>
<th>Appearance</th>
<th>aerosol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>grey, black</td>
</tr>
<tr>
<td>Odour</td>
<td>solvent-like</td>
</tr>
</tbody>
</table>

GHS Classification

- Flammable aerosols: Category 1
- Skin corrosion/irritation: Category 2
- Reproductive toxicity: Category 1A
- Specific target organ toxicity - single exposure: Category 3
- Specific target organ toxicity - repeated exposure: Category 2
- Aspiration hazard: Category 1
- Acute aquatic toxicity: Category 2
- Chronic aquatic toxicity: Category 2

GHS Label element

- Hazard pictograms:
- Signal word: Danger
- Hazard statements:
  - H222 Extremely flammable aerosol.
  - H304 May be fatal if swallowed and enters airways.
  - H315 Causes skin irritation.
  - H336 May cause drowsiness or dizziness.
H360 May damage fertility or the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
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.
P260 Do not breathe dust or mist.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P320 Specific treatment is urgent (see supplemental first aid instructions on this label).
P331 Do NOT induce vomiting.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P391 Collect spillage.

Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P410 Protect from sunlight.
P412 Do not expose to temperatures exceeding 50 °C/ 122 °F.

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

Potential Health Effects

Carcinogenicity:

IARC Suspected human carcinogen
toluene 108-88-3

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
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

<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;= 20 - &lt;= 40</td>
</tr>
<tr>
<td>toluene</td>
<td>108-88-3</td>
<td>&gt;= 20 - &lt;= 40</td>
</tr>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>&gt;= 10 - &lt;= 20</td>
</tr>
<tr>
<td>Stoddard solvent</td>
<td>8052-41-3</td>
<td>&gt;= 0.1 - &lt;= 1</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>1314-13-2</td>
<td>&gt;= 0.1 - &lt;= 1</td>
</tr>
<tr>
<td>zinc</td>
<td>7440-66-6</td>
<td>&gt;= 10 - &lt;= 20</td>
</tr>
</tbody>
</table>

### SECTION 4. FIRST AID MEASURES

**General advice**

In the case of accident or if you feel unwell, seek medical advice immediately. Show this safety data sheet to the doctor in attendance.

**If inhaled**

Remove person to fresh air. If signs/symptoms continue, get medical attention.

**In case of skin contact**

Remove contaminated clothing and shoes. Wash off with soap and plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

**In case of eye contact**

If in eyes, rinse with water for 15 minutes. If eye irritation persists, consult a specialist.

**If swallowed**

If swallowed, call a poison control centre or doctor immediately. Rinse mouth. Do NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position.

### SECTION 5. FIREFIGHTING MEASURES

**Suitable extinguishing media**

Dry chemical
Carbon dioxide (CO2)

**Unsuitable extinguishing media**

Water spray jet

**Specific extinguishing methods**

Cool containers / tanks with water spray. If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area.
Special protective equipment for firefighters: In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
- Evacuate personnel to safe areas.
- Keep people away from and upwind of spill/leak.
- Use personal protective equipment.
- Avoid breathing dust.

Environmental precautions:
- Should not be released into the environment.
- Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up:
- Flush with plenty of water.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling:
- For personal protection see section 8.
- Do not burn.
- Do not puncture.
- Do not spray on a naked flame or any incandescent material.
- Keep away from sources of ignition - No smoking. Keep away from children.
- Do not breathe vapours or spray mist.
- Avoid splashes.
- Use only with adequate ventilation.
- Wear personal protective equipment.
- Always replace cap after use.

Conditions for safe storage:
- Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.
- Keep away from sources of ignition - No smoking.
- Take measures to prevent the build up of electrostatic charge.
- Keep refrigerated.
- Keep in a cool place away from oxidizing agents.

Materials to avoid:
- No materials to be especially mentioned.

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>Stoddard solvent</td>
<td>8052-41-3</td>
<td>TWA</td>
<td>100 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>350 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>1,800 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td>Compound</td>
<td>CAS Number</td>
<td>TWA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>------------</td>
<td>--------------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>TWA 1,000 ppm</td>
<td>OSHA Z-1</td>
<td></td>
</tr>
<tr>
<td>zinc oxide</td>
<td>1314-13-2</td>
<td>TWA (Respirable fraction) 2 mg/m³</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>toluene</td>
<td>108-88-3</td>
<td>TWA 20 ppm</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>butane</td>
<td>106-97-8</td>
<td>TWA 800 ppm 1,900 mg/m³</td>
<td>OSHA P0</td>
<td></td>
</tr>
</tbody>
</table>

**Personal protective equipment**

Respiratory protection: Respirator with a full face mask

Filter type: Organic vapour type

Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Hand protection
Remarks : Solvent-resistant gloves

Eye protection
Remarks : Face-shield
Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection
Remarks : Protective suit
Chemical resistant apron

Protective measures
Remarks : When using do not eat, drink or smoke.

Hygiene measures
Remarks : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : aerosol
Colour : grey, black
Odour : solvent-like
Odour Threshold : no data available
pH : not applicable
Melting point/freezing point : not applicable
Boiling point : 150 °C
Flash point : not applicable
Evaporation rate : not determined
Upper explosion limit : not determined
Lower explosion limit : not determined
Vapour pressure : 3,792 hPa (21.1 °C)

Relative vapour density : no data available
Density : 0.912 g/cm3
Solubility(ies)
Water solubility : no data available
Solubility in other solvents : not determined

Partition coefficient: n-octanol/water : no data available
Auto-ignition temperature : 254.4 °C
Thermal decomposition : no data available

Viscosity
Viscosity, kinematic : no data available
SECTION 10. STABILITY AND REACTIVITY

Reactivity: No decomposition if stored and applied as directed.
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid: Do not expose to temperatures above: -150
Heat, flames and sparks.
Extremes of temperature and direct sunlight.
Incompatible materials: Strong oxidizing agents
Nitrous acid and other nitrosating agents

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

zinc oxide:
Acute oral toxicity: 7,950 mg/kg
Acute inhalation toxicity: 2,500 mg/l
Acute dermal toxicity: Remarks: no data available

Skin corrosion/irritation
Product:
Remarks: Irritating to skin.

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

Respiratory or skin sensitisation
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
no data available

Reproductive toxicity
Product:
Reproductive toxicity - Assessment: May damage fertility. May damage the unborn child.

Components:
- butane:
- toluene:
- propane:
- Stoddard solvent:
- zinc oxide:
- zinc:

STOT - single exposure
Product:
Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure
Product:
Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity
Product:
May be fatal if swallowed and enters airways.

Further information
Product:
Remarks: no data available
SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:
zinc oxide:
Toxicity to fish: 1.1 mg/l
Toxicity to daphnia and other aquatic invertebrates: 0.098 mg/l

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

toluene:
Partition coefficient: n-octanol/water: Pow: 2.73

Mobility in soil
no data available

Other adverse effects
no data available

Product:
Additional ecological information: no data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: Collect in plastic or metal containers for disposal.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of in accordance with local regulations.

Contaminated packaging: Empty containers should be taken to local recyclers for disposal.
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, FLAMMABLE, 2.1, (LQ), - Limited quantity

SECTION 15. REGULATORY INFORMATION

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

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>toluene</td>
<td>108-88-3</td>
<td>1000</td>
<td>*</td>
</tr>
<tr>
<td>zinc</td>
<td>7440-66-6</td>
<td>1000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards

SARA 302

SARA 313

California Prop 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

toluene 108-88-3
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.
- **AICS**: Not in compliance with the inventory
- **NZIoC**: On the inventory, or in compliance with the inventory
- **PICCS**: Not in compliance with the inventory
- **IECSC**: Not in compliance with the inventory
- **NDSL**: Not in compliance with the inventory
- **EINECS**: Not in compliance with the inventory
- **ELINCS**: Not in compliance with the inventory
- **ENCS**: Not in compliance with the inventory
- **KECI**: Not 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), TSCA (USA)

### SECTION 16. OTHER INFORMATION

**Further information**

- **NFPA:**
  - Flammability: 3
  - Health: 2
  - Reactivity: 0

- **HMIS III:**
  - Health: 2*
  - Flammability: 3
  - Physical Hazard: 2

**OSHA GHS Label Information:**

- **Hazard pictograms:**
  - Flammable
  - Health hazard
  - Physical hazard
  - Precautionary statement

- **Signal word**
  - Danger

- **Hazard statements**
  - Extremely flammable aerosol. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

- **Precautionary statements**
  - **Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. Do not breathe dust or mist. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
Response: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment is urgent (see supplemental first aid instructions on this label). Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Collect spillage.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up. 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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