SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : A00710 ZEP AUTO BATTERY CLNR ZAA710 16N15
Material number : 00000000001047944

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
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 : Vehicle Maintenance

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview
Appearance : Aerosol containing a liquefied gas
Colour : red
Odour : amine-like

GHS Classification
Gases under pressure : Liquefied gas
Skin corrosion : Category 1
Serious eye damage : Category 1

GHS label elements
Hazard pictograms : [Danger]

Signal word : Danger
Hazard statements : H280 Contains gas under pressure; may explode if heated.
H314 Causes severe skin burns and eye damage.

Precautionary statements : Prevention:
P260 Do not breathe dust or mist.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
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.

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;= 3 - &lt; 5</td>
</tr>
<tr>
<td>sodium carbonate</td>
<td>497-19-8</td>
<td>&gt;= 3 - &lt; 5</td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated</td>
<td>68439-46-3</td>
<td>&gt;= 1 - &lt; 3</td>
</tr>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>&gt;= 1 - &lt; 3</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. Consult a physician. 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. If symptoms persist, call a physician.

In case of skin contact: Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. Wash off immediately with plenty of water for at least 15 minutes. If on clothes, remove clothes.

In case of eye contact: Small amounts splashed into eyes can cause irreversible
tissue damage and blindness.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
If in eyes, rinse with water for 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 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 blistering, irritation, burns, and pain.
Effects are dependent on exposure (dose, concentration, contact time).
Causes severe skin burns and eye damage.
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:
- 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.
- Ensure adequate ventilation.
- Evacuate personnel to safe areas.
- Remove all sources of ignition.
- 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:
- 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.
- 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.
- Do not breathe vapours or spray mist.

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.
- 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
- Do not store near acids.

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</th>
<th>Basis</th>
</tr>
</thead>
</table>

4 / 12
<table>
<thead>
<tr>
<th></th>
<th>butane</th>
<th>propane</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>concentration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>800 ppm 1,900 mg/m³</td>
<td>1,000 ppm 1,800 mg/m³</td>
</tr>
<tr>
<td>TWA</td>
<td>800 ppm 1,900 mg/m³</td>
<td>1,000 ppm 1,800 mg/m³</td>
</tr>
<tr>
<td>PEL</td>
<td>800 ppm 1,900 mg/m³</td>
<td>1,000 ppm 1,800 mg/m³</td>
</tr>
</tbody>
</table>

**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: Protective gloves
- Remarks: 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
- Wear face-shield and protective suit for abnormal processing problems.

**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.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**

- Aerosol containing a liquefied gas

**Colour**

- red

**Odour**

- amine-like
SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Vapours may form explosive mixture with air.

Conditions to avoid : Heat, flames and sparks.

Incompatible materials : Acids
                          Strong oxidizing agents

Hazardous decomposition products : Carbon oxides
                                  Nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical Condition : None known.
Symptoms of Overexposure: Effects are immediate and delayed. Symptoms may include blistering, irritation, burns, and pain. 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
Product:
Acute oral toxicity: Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:
sodium carbonate:
Acute oral toxicity: LD50 Oral Rat: 4,090 mg/kg

Acute inhalation toxicity: LC50 Rat: 5,750 mg/l
Exposure time: 2 h

Alcohols, C9-11, ethoxylated:
Acute oral toxicity: LD50 Oral Rat: 1,400 mg/kg

Skin corrosion/irritation
Product:
Remarks: Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation
Product:
Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation
No data available

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

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).
SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: Do not dispose of waste into sewer. 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, 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

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: Gases under pressure
Skin corrosion or irritation
Serious eye damage or eye irritation

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:

<table>
<thead>
<tr>
<th>Inventory Acronym</th>
<th>Validity Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL</td>
<td>All components of this product are on the Canadian DSL</td>
<td></td>
</tr>
<tr>
<td>TSCA</td>
<td>On TSCA Inventory</td>
<td></td>
</tr>
</tbody>
</table>

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: 3
- Health: 2
- Reactivity: 0

**Special hazard:**

**HMIS III:**
- Health: 3
- Flammability: 2
- Physical Hazard: 0

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

### OSHA - GHS Label Information:

**Hazard pictograms:**
- Diamond with hammer

**Signal word:** Danger

**Hazard statements:**
Contains gas under pressure; may explode if heated. Causes severe skin burns and eye damage.

**Precautionary statements:**
- **Prevention:** Do not breathe dust or mist. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.
- **Response:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. 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.

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.