Section 1. Chemical Product and Company Identification

Product name: ZEP 45 NC AEROSOL
Product use: Aerosol Lubricant & Penetrant
Product code: 0149
Date of issue: 01/15/15  Supersedes 01/27/12

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
(877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

Prepared By
Compliance Services
1259 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview

DANGER!

FLAMMABLE LIQUID AND VAPOR. CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION. HARMFUL IF INHALED OR SWALLOWED.

CONTENTS UNDER PRESSURE. Vapor may cause flash fire. Do not smoke. Eliminate all ignition sources.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects  Routes of Entry  Dermal contact. Eye contact. Inhalation.

Eyes  Causes eye irritation. Risk of serious damage to eyes. Inflammation of the eye is characterized by redness, watering and itching.

Skin  Causes skin irritation. Skin inflammation is characterized by itching, scaling, or reddening.

Inhalation  Irritating to respiratory system. Can cause dizziness, light-headedness, headache, nausea and blurred vision. Can cause central nervous system (CNS) depression.

Ingestion  Unlikely in this form. Harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Chronic effects  Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, the reproductive system, liver, cardiovascular system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea, testes. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation.

Carcinogenicity Classification  Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>EPA</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene</td>
<td>-</td>
<td>2B</td>
<td>-</td>
<td>A3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Additional information: See toxicological information (Section 11)

Section 3. Composition/Information on Ingredients
Section 4. First Aid Measures

Eye Contact
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention immediately.

Skin Contact
Flush affected skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops.

Inhalation
Move exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion
Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. If affected person is conscious, give plenty of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flash Point
Not available.

Flammable Limits
Not available.

Flammability
Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.

Fire hazard
Flammable aerosol. Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst or explode. Gas may accumulate in low or confined areas, travel considerable distance to source of ignition and flash back. Bursting aerosol containers may be propelled from a fire at high speed.

Fire-Fighting Procedures
Use an extinguishing agent suitable for the surrounding fire. Cool containers with water jet in order to prevent pressure build-up, auto-ignition or explosion. Fire-fighters should wear appropriate protective equipment.

Section 6. Accidental Release Measures

Spill Clean up
Large spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling
Put on appropriate personal protective equipment (see Section 8). Store and use away from heat, sparks, open flame or any other ignition source. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Observe label precautions. Wash contaminated clothing before reusing. Wash thoroughly after handling.

Storage
CONTENTS UNDER PRESSURE. Eliminate all ignition sources. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrotreated Heavy Alkanes; Distillates (petroleum), hydrotreated heavy naphthenic</td>
<td>ACGIH TLV (United States, 3/2012). TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction. NIOSH REL (United States, 1/2013). TWA: 5 mg/m³ 10 hours. Form: Mist. STEL: 10 mg/m³ 15 minutes. Form: Mist. OSHA PEL (United States, 6/2010). TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Light Aromatic Hydrocarbons; Stoddard solvent</td>
<td>ACGIH TLV (United States, 3/2012). TWA: 100 ppm 8 hours. TWA: 525 mg/m³ 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hours. TWA: 525 mg/m³ 8 hours. NIOSH REL (United States, 1/2013).</td>
</tr>
<tr>
<td>Personal Protective Equipment (PPE)</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Eyes</strong></td>
<td></td>
</tr>
<tr>
<td>Safety glasses.</td>
<td></td>
</tr>
<tr>
<td><strong>Body</strong></td>
<td></td>
</tr>
<tr>
<td>For prolonged or repeated handling, use gloves.</td>
<td></td>
</tr>
</tbody>
</table>

### ZEP 45 NC AEROSOL

**Product Code:** 0149

**Product Name:** ZEP 45 NC AEROSOL

### Personal Protective Equipment (PPE)

**Eyes**

Safety glasses.

**Body**

For prolonged or repeated handling, use gloves. Recommended: Neoprene gloves. Nitrile gloves. Rubber gloves.
Respiratory Use with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

Section 9. Physical and Chemical Properties

### Physical State
- **Liquid. [Aerosol.]**

### pH
- Not applicable.

### Boiling Point
- 179.44°C (355°F)

### Specific Gravity
- 0.845

### Solubility
- Insoluble in the following materials: cold water and hot water.

### Color
- Amber.

### Odor
- Sweetish. Solvent-like.

### Vapor Pressure
- Not determined.

### Vapor Density
- Not determined.

### Evaporation Rate
- <1 (water = 1)

### VOC (Consumer)
- 50 % (w/w) 3.53 lbs/gal (422.5 g/l)

Section 10. Stability and Reactivity

### Stability and Reactivity
- The product is stable.

### Incompatibility
- Keep away from heat, sparks and flame. Reactive or incompatible with the following materials: oxidizing materials.

### Hazardous Polymerization
- Under normal conditions of storage and use, hazardous polymerization will not occur.

### Hazardous Decomposition Products
- carbon oxides (CO, CO₂)

Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogenated Heavy Alkanes; Distillates (petroleum), hydrogenated heavy naphthenic</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;5 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>C9-15 Heavy Aromatic Hydrocarbons; Solvent naphtha (petroleum), light arom.</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Middle Alkanes; Distillates (petroleum), straight-run middle</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>8400 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>ethanol</td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat</td>
<td>1700 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td>LD50 Inhalation Vapor</td>
<td>Rat</td>
<td>12400 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td>Butoxydiglycol; 2-(2-butoxyethoxy)ethanol</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>2700 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>4500 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Section 12. Ecological Information

### Aquatic Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethanol</td>
<td>Acute LC50 25500 µg/l Marine water</td>
<td>Crustaceans - Artemia franciscana - Larvae</td>
<td>48 hours</td>
</tr>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td>Chronic NOEC 4.995 mg l Marine water</td>
<td>Algae - Ulva pertusa</td>
<td>96 hours</td>
</tr>
<tr>
<td>Butoxydiglycol; 2-(2-butoxyethoxy)ethanol</td>
<td>Acute LC50 4910 µg/l Fresh water</td>
<td>Crustaceans - Elasmopus pectinicus - Adult</td>
<td>12 weeks</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Acute LC50 7720 µg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 1300000 µg/l Fresh water</td>
<td>Fish - Lepomis macrochirus</td>
<td>48 hours</td>
</tr>
<tr>
<td>Amyl Acetate; pentyl acetate</td>
<td>Acute LC50 65 ppm Fresh water</td>
<td>Fish - Gambusia affinis - Adult</td>
<td>96 hours</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Acute LC50 4600 µg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 3600 µg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 2930 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 5200 µg/l Marine water</td>
<td>Crustaceans - Americamysis bahia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 4200 µg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 1000 µg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Section 13. Disposal Considerations

### Waste Information
- Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

### Waste Stream
- Code: D001
  - Classification: Ignitable hazardous waste.
  - Origin: RCRA waste.
Section 14. Transport Information

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Classes</th>
<th>PG*</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT Classification</td>
<td></td>
<td>Consumer commodity or Limited quantity</td>
<td>ORM-D</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>IMDG Class</td>
<td>UN1950</td>
<td>AEROSOLS, flammable.</td>
<td>2.1</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

PG* : Packing group

Section 15. Regulatory Information

U.S. Federal Regulations

SARA 313 toxic chemical notification and release reporting:

Product name
1,2,4-trimethylbenzene
Butoxydiglycol; 2-(2-butoxyethoxy)ethanol
ethylbenzene

Clean Water Act (CWA) 307: ethylbenzene
Clean Water Act (CWA) 311: ethylbenzene; Amyl Acetate
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

State Regulations

California Prop 65
WARNING: This product contains a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

*NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.