Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product name: Heavy-Duty Citrus Degreaser
Product code: ZUCIT
Date of issue: 10/14/08
Supersedes: 08/29/07

Emergency Numbers
For MSDS Information:
Compliance Services 404-352-1680

For Medical Emergency
INFOTRAC: (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
1420 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview
WARNING!
COMBUSTIBLE. CAUSES EYE IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL IF SWALLOWED.

Carcinogenicity Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Name of Hazardous Ingredients</th>
<th>CAS number</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-LIMONENE; orange distillate; citrus terpene; cyclohexene, 1-methyl-4-(1-methylethenyl)-(R)-</td>
<td>5989-27-5</td>
<td>1 - 5</td>
</tr>
<tr>
<td>MONOETHANOLAMINE; 2-aminoethanol; MEA</td>
<td>141-43-5</td>
<td>1 - 5</td>
</tr>
<tr>
<td>DIETHYLENE GLYCOL MONOBUTYL ETHER; 2-(2-butoxyethoxy)-ethanol; butyl carbitol</td>
<td>112-34-5</td>
<td>1 - 5</td>
</tr>
<tr>
<td>DIPROPYLENE GLYCOL N-BUTYL ETHER; 1-(2-butoxy-1-methoxy)-2-propanol; Glycol Ether DPNB</td>
<td>29911-28-2</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

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. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Get medical attention if irritation develops.

Inhalation
Move exposed person to fresh air. If irritation persists, get medical attention.

Ingestion
If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If affected person is conscious, give plenty of water to drink. Get medical attention immediately.
Section 5. Fire Fighting Measures

Flash Point  
Closed cup: 51.1°C (124°F)

Flammable Limits  
Not determined.

Flammability  
COMBUSTIBLE.

Fire hazard  
Combustible liquid and vapor. Keep away from heat, sparks and flame.

Fire-Fighting Procedures  
Use dry chemical, CO₂, water spray (fog) or foam. Fire-fighters should wear appropriate protective equipment. Do not release runoff from fire to sewers or waterways.

Section 6. Accidental Release Measures

Spill Clean up  
Eliminate all ignition sources. Put on appropriate personal protective equipment (see section 8). Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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. Avoid contact with eyes, skin and clothing. Avoid breathing vapors, spray or mists. Use only with adequate ventilation. Do not ingest. Observe label precautions. Wash thoroughly after handling. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage  
Keep away from heat and direct sunlight. Avoid all possible sources of ignition (spark or flame). Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Product name  
MONOETHANOLAMINE; 2-aminoethanol; MEA

Exposure limits  
OSHA PEL / ACGIH TLV (United States).  
TWA: 3 ppm 8 hour(s).

DIETHYLENE GLYCOL MONOBUTYL ETHER; 2-(2-butoxyethoxy)-ethanol; butyl carbitol

Manufacturer (United States).  
TWA: 35 ppm 8 hour(s).

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. A respirator is not needed under normal and intended conditions of product use.

Section 9. Physical and Chemical Properties

Physical State  
Liquid.

pH  
11.0 - 12.0

Boiling Point  
Not available.

Specific Gravity  
1.01

Solubility  
Soluble in water.

Color  
Clear. Amber.

Odor  
Citrus

Vapor Pressure  
Not available.

Vapor Density  
Not determined.

Evaporation Rate  
1 (Water = 1)

VOC (Consumer)  
4.0%  0.34 lbs/gal  40 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity  
The product is stable.

Incompatibility  
Combustible materials should be stored away from extreme heat and away from strong oxidizing agents. Incompatible with some strong acids. Reactive with acidic clay (i.e. clay absorbent)

Hazardous Polymerization  
Will not occur.

Hazardous Decomposition Products  
carbon oxides, nitrogen oxides (NO, NO₂ etc.)
### Section 11. Toxicological Information

#### Acute Toxicity

<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>Monoethanolamine</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;1000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1720 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Diethylene Glycol Monobutyl Ether</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>2700 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5660 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Mouse</td>
<td>2400 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Section 12. Ecological Information

**Environmental Effects**
No known significant effects or critical hazards.

**Aquatic Ecotoxicity**
Not available.

### 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: - [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>Not applicable.</td>
<td>Not a DOT controlled material (United States).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDG Classification</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>IMDG Class</td>
<td>Not determined.</td>
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<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**
- Diethylene Glycol Monobutyl Ether

**Clean Water Act (CWA) 307**
- No products were found.

**Clean Water Act (CWA) 311**
- No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances**
- Diethylene Glycol Monobutyl Ether

**All Components of this product are listed or exempt from listing on TSCA Inventory.**

#### State Regulations

**California Prop 65**
- No products were found.

#### Canada

**WHMIS (Canada)**
- Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
- Class D-2B: Material causing other toxic effects (Toxic).
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.