1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Castrol R-134a PAG Oil Charge
Chemical Family: Refrigerant gas/lubricant
Synonyms: None
Emergency Telephone (24 hr.): CHEMTREC 1-800-424-9300
Supplier: Technical Chemical Company, P.O. Box 139, Cleburne, Texas 76033

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient/CAS No.</th>
<th>wt. %</th>
<th>OSHA PEL TWA</th>
<th>OSHA PEL Ceiling Limits</th>
<th>ACGIH TLV TWA</th>
<th>ACGIH TLW STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-Tetrafluoroethane 811-97-2</td>
<td>45-85</td>
<td>Not Known (Recommended &lt;1000 ppm TWA)</td>
<td>Not Known</td>
<td>Not Known</td>
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<tr>
<td>Polyalkylene Glycols 9038-95-3</td>
<td>15-55</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
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</tr>
</tbody>
</table>

Contains no other ingredients in concentrations >.1% that are now known to be hazardous as defined by OSHA.

3. HAZARDS IDENTIFICATION

Emergency Overview: Content under pressure. "Frostbite-like" effects may occur if the liquid or escaping vapors contact the eyes or skin. Gross inhalation overexposure may cause: Central nervous system depression with dizziness, confusion, incoordination, drowsiness or unconsciousness or death.

NFPA Rating:
- Health: 2
- Flammability: 1
- Reactivity: 1

4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin Contact: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and shoes, and launder before reuse. Use approved skin lotions or creams to replace lost skin oils. Treat for frostbite if necessary by gently warming affected area.

5. FIRE FIGHTING MEASURES

Flammable Properties
- Flash Point °F(°C): >300 F.
- Flash Point Method: COC
- Flammable Limits in Air - Lower (%): NT
- Flammable Limits in Air - Upper (%): Not Determined
- Autoignition Temperature °F(°C): Not Determined
- Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical. Use water spray to keep containers cool that are exposed to heat or flames.

Protection Of Fire-Fighters: Warning!! Contents under pressure. Container may rupture under fire conditions. Decomposition may occur. Wear approved positive-pressure self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective clothing and equipment to prevent skin and eye contact.

Spill Procedures: Wear protective equipment specified. Contain any liquid from leaking containers. Ventilate spill area. Soak up material with absorbent and place in chemical waste container. Increase area ventilation. Do not puncture or incinerate container. Contents under pressure.

Environmental Precautions: Keep away from drains.

7. HANDLING AND STORAGE

Handling and Storage: CAUTION: COMPRESSED GAS. Do not puncture, incinerate or store above 120 F. Do not store in passenger compartment of automobile. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Should not be mixed with air for leak testing or used for any other purpose above atmospheric pressure.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Showers. Eyewash stations.

Eyes: Wear safety glasses or goggles to protect against exposure.

Skin Protection: Avoid skin contact. Wear protective clothing and gloves.

Respiratory Protection: Use in a well ventilated area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless gas with clear to yellow liquid.

Odor: MILD ETHER LIKE pH Value: Not Determined

Vapor Pressure: Not Determined Vapor Density (Air=1): Not Determined

Boiling Point (°F): -15.7 F. (Lowest Component) Melting/Freezing Point: Not determined.

Solubility in Water: NEGLIGIBLE Bulk Density at 20°C: Not determined

Molecular Weight: Mixture Evaporation Rate: >1

Viscosity: Not determined Specific Gravity (H20=1): Not determined

VOC Content(%): Not determined Decomposition Temperature: Not Known

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Do not expose to heat or store at temperatures above 120 F.

Materials to Avoid: Avoid contact with acidic, basic or oxidizing agents. Avoid contact with alkali or alkaline earth metals.

Hazardous Decomposition Products: Carbon monoxide. Carbon dioxide. This material can be decomposed by high temperatures forming hydrofluoric acid and possibly carbonyl fluoride.

Hazardous Polymerization: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

<table>
<thead>
<tr>
<th>Ingredient/CAS No.</th>
<th>wt. %</th>
<th>Route</th>
<th>Species</th>
<th>Dose</th>
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<tr>
<td>1,1,1,2-Tetrafluoroethane 811-97-2</td>
<td>45-85</td>
<td>Inhalation</td>
<td>Rats</td>
<td>LC50 1500 gm/m3/4H</td>
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<td>Polyalkylene Glycols 9038-95-3</td>
<td>15-55</td>
<td>Oral</td>
<td>Rats</td>
<td>LD50 12300 uL/kg</td>
</tr>
</tbody>
</table>

Carcinogenicity:

<table>
<thead>
<tr>
<th>Ingredient/CAS No.</th>
<th>wt. %</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
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<tr>
<td>1,1,1,2-Tetrafluoroethane 811-97-2</td>
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MSDS NO. 6415  
Revision Date: 01/02/2002  
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12. ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

13. DISPOSAL CONSIDERATION

Waste Classification: Not determined.

Waste Management: Not determined.

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT:

Proper Shipping Name: ORMD Consumer Commodity

Hazard Class: ORMD

UN/NA Number: NA

DOT Packing Group: NA

IMDG:

Proper Shipping Name: 1,1,1,2 Tetraflouroethane

Hazard Class: 2.2

Hazard Subclass: Not determined.

UN No.: UN3159

Packing Group: NA

Marine Pollutant: No

15. REGULATORY INFORMATION

US Federal Regulations:

<table>
<thead>
<tr>
<th>Ingredient/CAS No.</th>
<th>wt. %</th>
<th>SARA 313</th>
<th>SARA 302</th>
<th>RQ</th>
<th>TPQ</th>
</tr>
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SARA 311/312 Hazard Categories: Not Determined.

State Regulations:
MATERIAL SAFETY DATA SHEET

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MSDS NO. 6415
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<tr>
<th>Ingredient/CAS No.</th>
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<th>California Prop. 65 Cancer list</th>
<th>California Prop. 65 Developmental Toxicity</th>
<th>California Prop. 65 Reproductive Female</th>
<th>California Prop. 65 Reproductive Male</th>
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U.S. TSCA: The components of this product are listed on the TSCA Inventory.

16. OTHER INFORMATION

General Notes: Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system.

Disclaimer: The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.