1. Identification

1.1. Product identifier

Product Identity
Corrosion Preventive Compound, Aerosol

Alternate Names
Specification: MIL-PRF-81309G, Type II, Class 2, Grade134a
LHB Part Number: 0954---000
National Stock Number: 8030-00-938-1947
CAGE Code: 0FFT5
Contract No.: SPE8EG-15-C-0002

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use
See Technical Data Sheet.

Application Method
See product label.

1.3. Details of the supplier of the safety data sheet

Company Name
LHB Industries
8833 Fleischer Place
Berkeley, MO 63134

Emergency
24 hour Emergency Telephone No. (800) 633-8253 (PERS)
Customer Service: LHB Industries (314) 423-4333

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Flam. Aerosol 1;H222 Extremely flammable aerosol.
Acute Tox. 5;H303 May be harmful if swallowed. (Not adopted by US OSHA)
Simple Asphyxiant May displace oxygen and cause rapid suffocation.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.
Danger

H222 Extremely flammable aerosol.
H303 May be harmful if swallowed.
May displace oxygen and cause rapid suffocation.

[Prevention]:
No GHS prevention statements
P210 Keep away from heat / sparks / open flames / hot surfaces - 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.

[Response]:
P312 Call a POISON CENTER or doctor / physician if you feel unwell.

[Storage]:
P410+412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122 °F.

[Disposal]:
No GHS disposal statements

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light</td>
<td>25 - 50</td>
<td>Asp. Tox. 1;H304</td>
<td>[1]</td>
</tr>
<tr>
<td>CAS Number: 0064742-47-8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,1,1,2-Tetrafluoroethane (HFC-134a)</td>
<td>10 - 25</td>
<td>Liquifed Gas;H280 Simple Asphyxiant</td>
<td>[1]</td>
</tr>
<tr>
<td>CAS Number: 0000811-97-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barium Oxidate</td>
<td>10 - 25</td>
<td>Acute Tox. 4;H302 Acute Tox. 4;H332</td>
<td>[1]</td>
</tr>
<tr>
<td>CAS Number: Proprietary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barium Sulfonate</td>
<td>1.0 - 10</td>
<td>Not Classified</td>
<td>[1]</td>
</tr>
<tr>
<td>CAS Number: Proprietary</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. First aid measures

4.1. Description of first aid measures

General
Move victim to fresh air.
Call 911 or emergency medical service if deemed necessary.
Give artificial respiration if victim is not breathing.
Administer oxygen if breathing is difficult.
Remove and isolate contaminated clothing and shoes.
In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
Keep victim warm and quiet.
Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Get medical attention. Do not give adrenaline, epinephrine or similar drugs following exposure to this product.

Eyes
Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin
Flush exposed skin with lukewarm water (not hot), or use other means to warm skin slowly. Get medical attention if frost bitten by liquid or if irritation occurs.

Ingestion
DO NOT INDUCE VOMITING. Give nothing by mouth. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed
Overview  
Liquid and gas under pressure, overheating and overpressurizing may cause gas release or rupturing of container. May decompose on contact with flames or extremely hot metal surfaces to produce toxic and corrosive products. Vapor reduces oxygen available for breathing and is heavier than air. Harmful if inhaled and may cause heart irregularities, unconsciousness or death. Liquid contact with eyes or skin may cause frostbite.  
Potential Health Effects Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. As with most liquefied gases, contact with rapidly volatizing liquid or cold vapor can cause frostbite to any tissue. High vapor concentrations are irritating to the eyes and respiratory tract and may result in central nervous system effects such as headache, dizziness, anesthesia, drowsiness, and in severe exposure, loss of consciousness and death. The dense vapor of this material may reduce the available oxygen for breathing and produce symptoms such as headache, dizziness, drowsiness, cyanosis and lack of muscle control followed by collapse. Prolonged exposure to an oxygen-deficient atmosphere may be fatal. Inhalation of this material may cause an increase in the sensitivity of the heart too adrenaline, which could result in irregular or rapid heartbeats and reduced heart function. Workers with heart disease or compromised heart function should limit exposure to this material. Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. 

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.  

Ingestion  
May be harmful if swallowed. (Not adopted by US OSHA)  

5. Fire-fighting measures  

5.1. Extinguishing media  
Use media appropriate for surrounding fire.  

5.2. Special hazards arising from the substance or mixture  
Hazardous decomposition: Hydrogen fluoride, hydrogen chloride, carbon monoxide carbon dioxide and chlorine.  
Keep away from heat / sparks / open flames / hot surfaces - No smoking.  
Do not spray on an open flame or other ignition source.  
Pressurized container: Do not pierce or burn, even after use.
Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

Wear positive pressure self-contained breathing apparatus (SCBA).
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Structural firefighters’ protective clothing will only provide limited protection.
Containers may explode when heated.

Vapors may cause dizziness or asphyxiation without warning.
Vapors from liquefied gas are initially heavier than air and spread along ground.
Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
Fire may produce irritating, corrosive and/or toxic gases.

ERG Guide No. 126

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Do not touch or walk through spilled material.
Stop leak if you can do it without risk.
Do not direct water at spill or source of leak.
Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
If possible, turn leaking containers so that gas escapes rather than liquid.
Prevent entry into waterways, sewers, basements or confined areas.
Allow substance to evaporate.
Ventilate the area.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet.
Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Avoid inhalation. Use good ventilation. Read entire label before using and follow all label directions.
Dispose of in accordance with applicable Federal, State & Local regulations. Remove ignition sources and work with non-sparking tools. Use oil absorbent materials.

7. Handling and storage
7.1. Precautions for safe handling
Keep out of reach of children. Keep away from heat sparks, and open flame. Contents under pressure. Do not puncture, incinerate, or expose to temperatures above 120F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities
Handle containers carefully to prevent damage and spillage. Incompatible materials: Oxidizing Agents Category NFPA 30B Level 2 Aerosol See section 2 for further details. - [Storage]:

7.3. Specific end use(s)
See product label.

8. Exposure controls and personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000811-97-2</td>
<td>1,1,1,2-Tetrafluoroethane (HFC-134a)</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
<tr>
<td>0064742-47-8</td>
<td>Petroleum distillates, hydrotreated light</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>Recommended 300 ppm PEL</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Barium Sulfonate</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>
Carcinogen Data

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000811-97-2</td>
<td>1,1,1,2-Tetrafluoroethane (HFC-134a)</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
<tr>
<td>0064742-47-8</td>
<td>Petroleum distillates, hydrotreated light</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Barium Sulfonate</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Barium Oxidate</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
</tbody>
</table>

9. Physical and chemical properties

Appearance: Dark Brown Liquid/Gas
Odor: Solvent
Odor threshold: Not Measured
pH: Not Measured
Melting point / freezing point: Not Measured
Initial boiling point and boiling range: Not Measured
Flash Point: > 142F (Aerosol Concentrate)
Evaporation rate (Ether = 1): Not Measured
Flammability (solid, gas): Gas
Upper/lower flammability or explosive limits: Lower Explosive Limit: NA
### Upper Explosive Limit: NA

- **Vapor pressure (Pa)**: 80 psia @77F
- **Vapor Density**: 3.52 (Heavier than Air)
- **Specific Gravity**: 0.950
- **Solubility in Water**: Not Measured
- **Partition coefficient n-octanol/water (Log Kow)**: Not Measured
- **Auto-ignition temperature**: Not Measured
- **Decomposition temperature**: Not Measured
- **Viscosity (cSt)**: Not Measured
- **VOC Content**: 37.5% by wt, 441 g/L (3.68 lbs/gal)
- **Density**: 7.92 lb/gal
- **HAPS (lbs/gal)**: Not determined
- **HAPS (lbs/gal of Solids)**: Not determined
- **HAPS (lbs/lb of Solids)**: Not determined

### 9.2. Other information

No other relevant information.

### 10. Stability and reactivity

#### 10.1. Reactivity
Hazardous Polymerization will not occur.

#### 10.2. Chemical stability
Stable under normal circumstances.

#### 10.3. Possibility of hazardous reactions
No data available.

#### 10.4. Conditions to avoid
Do not expose to heat or store at temperature above 120°F.

#### 10.5. Incompatible materials
Oxidizing Agents

#### 10.6. Hazardous decomposition products
Hydrogen fluoride, hydrogen chloride, carbon monoxide carbon dioxide and chlorine.
11. Toxicological information

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation Vapor LD50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LD50, mg/L/4hr</th>
<th>Inhalation Gas LD50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light</td>
<td>5,000.00, Rat -</td>
<td>&gt;2,000.00, Rabbit -</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>(64742-47-8) - Category: 5</td>
<td>Category: 5</td>
<td>Category: 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,1,1,2-Tetrafluoroethane (HFC-134a) - (811-97-2)</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>Barium Oxidate - (Proprietary)</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>Barium Sulfonate - (Proprietary)</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
<th>Hazard Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>4</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>4</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
12. Ecological information

12.1. Toxicity
No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>96 hr LC50 fish, mg/l</th>
<th>48 hr EC50 crustacea, mg/l</th>
<th>ErC50 algae, mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light - (64742-47-8)</td>
<td>45.00, Pimephales promelas</td>
<td>4,720.00, Dendronereides heteropoda</td>
<td>Not Available</td>
</tr>
<tr>
<td>1,1,1,2-Tetrafluoroethane (HFC-134a) - (811-97-2)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Barium Oxidate - (Proprietary)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Barium Sulfonate - (Proprietary)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
There is no data available on the preparation itself.

12.3. Bioaccumulative potential
Not Measured

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects
No data available.

13. Disposal considerations
13.1. Waste treatment methods
Observe all federal, state and local regulations when disposing of this substance.

### 14. Transport information

<table>
<thead>
<tr>
<th>DOT (Domestic Surface Transportation)</th>
<th>IMO / IMDG (Ocean Transportation)</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1950</td>
<td>UN1950</td>
<td>UN1950</td>
</tr>
<tr>
<td>UN1950, Aerosols, Limited Quantity, 2.1, DOT Hazard Class: 2.1, DOT Label: ---</td>
<td>Aerosols, Limited Quantity IMDG: 2.1 Sub Class: Not Applicable</td>
<td>Aerosols, Limited Quantity Air Class: 2.1</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

### 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification Not Regulated

US EPA Tier II Hazards

- Fire: No
- Sudden Release of Pressure: Yes
- Reactive: No
- Immediate (Acute): Yes
- Delayed (Chronic): No
EPCRA 311/312 Chemicals and RQs:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%) :
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

N.J. RTK Substances (>1%) :
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Penn RTK Substances (>1%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H332 Harmful if inhaled.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

IMPORTANT NOTE: This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or any process. Final determination of suitability of any material is the sole responsibility of the user.

End of Document