



# Material Safety Data Sheet

## Section 1 — Chemical Product And Company Identification

Manufacturer: LHB Industries Emergency Telephone Number (800) 424-9300 (Chemtec)  
3833 Fleischer Place Information Telephone Number (314) 423-4333  
Berkeley, MO 63134 Date of Preparation February 25, 2009

Product ID: Corrosion Preventive Compound, Aerosol  
Specification: MIL-PRF-81309E, Type III, Class 2, Grade 134a  
LHB Part Number: 0904-000  
National Stock Number: 8030-00-546-8637  
CAGE Code: JFTT5  
Contract No.: GS-10F-40540

## Section 2 — Composition / Information On Ingredients

CAS No.	Ingredient	Wt%	ACGIH TLV	OSHA PEL
811-97-2	1,1,1,2-Tetrafluoroethane (HFC-134a)	<30.0	NE	NE
64742-95-7	Solvent Naphtha, Heavy Aliphatic	<57.0	100 ppm	NE
Mixture	Barium Compounds (1.5% as Ba.)	<12.0	NE	NE

## Section 3 — Hazards Identification

### Emergency Overview

#### WARNING!

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.

#### Potential Health Effects

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. High vapor concentrations are irritating to the eyes and respiratory tract and may result in central nervous system effects such as headache, dizziness, anesthesia, crowiness, 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 to 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.

## Section 4 — First Aid Measures

**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.

**SKIN CONTACT:** Flush exposed skin with lukewarm water (not hot), or use other means to warm skin slowly. Get medical attention if irritation occurs.

**EYE CONTACT:** Immediately flush eyes with plenty of water and get medical attention after flushing.

**INGESTION:** Do Not Induce Vomiting. Give nothing by mouth. Get medical attention immediately.

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## Section 5 — Fire Fighting Measures

FLASH POINT >142°F (Aerosol Concentrate) LEL: NA UEL: NA  
EXTINGUISHING MEDIA: Use extinguishing media appropriate to the surrounding fire conditions.  
SPECIAL EXPOSURE HAZARDS: Do not expose to temperatures over 120°F. Keep away from heat, sparks and flame. Containers may explode when exposed to extreme heat. Applications to hot surfaces require special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.  
SPECIAL PROTECTIVE EQUIPMENT: Water may be used to keep fire-exposed containers cool. Fire fighters should wear full protective clothing, including self-contained breathing equipment.  
NFPA RATING: HEALTH 2, FLAMMABILITY 2, REACTIVITY 0  
HMIS CLASSIFICATION: HEALTH 2, FLAMMABILITY 2, REACTIVITY 0

## Section 6 — Accidental Release Measures

PERSONAL PRECAUTIONARY MEASURES: Avoid inhalation. Use good ventilation. Read entire label before using and follow all label directions.

ENVIRONMENTAL PRECAUTIONARY PROCEDURE FOR CLEANING/ABSORPTION: Evacuate enclosed spaces and disperse gas with floor-level forced-air ventilation. Exhaust vapors outdoors. Do not smoke or operate internal combustion engines. Remove flames and heating elements.

## Section 7 — Handling and Storage

HANDLING: Keep out of reach of children. Keep away from heat, sparks, and open flame. During use and until all vapors are gone, keep area ventilated. Contents under pressure. Do not puncture, incinerate, or expose to temperatures above 120°F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally.

STORAGE: CATEGORY — NFPA 30B Level 2 Aerosol  
Do not store where temperatures may exceed 120°F (48.9°C).

## Section 8 — Exposure Controls/Personal Protection

ENGINEERING CONTROLS: Local Exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits.

RESPIRATORY PROTECTION: If personal exposure cannot be controlled to below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

GLOVES: None required for aerosol products where a minimal skin contact is expected. For long or repeated contact wear chemical resistant gloves.

SKIN PROTECTION: Impervious clothes to protect skin. Wash promptly when skin becomes contaminated.

EYES: Safety glasses with side shields or chemical goggles.

OTHER PERSONAL PROTECTION DATA: Use only with adequate ventilation. Avoid contact with skin and eyes. Wash hands after using.



# Material Safety Data Sheet

## Section 9 — Physical and Chemical Properties

PHYSICAL STATE:	Liquid/Gas
COLOR:	Dark Brown
ODOR:	Solvent
SPECIFIC GRAVITY:	0.919
DENSITY:	7.86 lb/gal
VAPOR PRESSURE:	80 psia @ 77°F
VAPOR DENSITY (AIR=1):	3.52 (Heavier than Air)
SOLUBILITY IN WATER:	Insoluble

## Section 10 — Stability and Reactivity

CHEMICAL STABILITY:	Stable
HAZARDOUS POLYMERIZATION:	Will not occur
CONDITIONS TO AVOID:	Do not expose to heat or store at temperature above 120° F
MATERIAL TO AVOID:	Strong alkalis or alkaline earth metals, finely powdered metals such as aluminum, magnesium or zinc and strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS:	Hydrogen fluoride, hydrogen chloride, carbon monoxide, carbon dioxide and chlorine.

## Section 11 — Toxicological Information

1,1,1,2-Tetrachloroethane (H-C-134a)  
No allergic skin response was observed in guinea pigs following repeated exposure to this material. Inhalation of very high concentrations of this material produces a rapid anesthetic effect in mice, dogs, cats, and monkeys. No toxic effects were observed in rats exposed 6 hours/day, 5 days/week for 13 weeks to this material using concentrations up to 50000 ppm. No toxic effects and no tumors were observed in an oral dose study of rats given 300 mg/kg/day for 1 year followed by lifetime observation. This material was negative in the mouse dominant lethal assay. No birth defects were noted in rats and rabbits exposed to this material by inhalation during pregnancy. This material produced no genetic changes in standard tests using animals (in vivo tests) and animals or bacterial cells. Metabolism studies in rats exposed by the oral and inhalation routes show that this material is not metabolized or accumulated in the body to any extent.

## Section 12 — Ecological Information

ECOLOGICAL INFORMATION: No data available

## Section 13 — Disposal Considerations

DISPOSAL OF WASTE METHOD: Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

## Section 14 — Transport Information

U.S. DOT: 49 CFR 172.101 Hazardous Materials Table	
PROPER SHIPPING NAME:	Consumer Commodity
HAZARD CLASS OR DIVISION:	ORM-D

IATA: List of Dangerous Goods	
PROPER SHIPPING NAME:	Aerosols, flammable
HAZARD CLASS OR DIVISION:	2.1
IDENTIFICATION NUMBER:	UN1950

IMDG: International Maritime Dangerous Goods	
PROPER SHIPPING NAME:	Aerosols
HAZARD CLASS OR DIVISION:	2
IDENTIFICATION NUMBER:	UN1950

## Section 15 — Regulatory Information

U.S. REGULATORY RULES	
SARA SECTION 302	None
SARA 313 CHEMICALS	Barium Compounds (1.5% as Ba)
CALIFORNIA PROPOSITION 65	None
RCRA STATUS	This material is classified as a hazardous waste.
TSCA CERTIFICATION	All chemicals in this product are listed, or are exempt from listing on the TSCA inventory.

VOC CONTENT	57.0% by Wt 661 g/L (5.52 lbs/gal)
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HAZARDOUS AIR POLLUTANTS (Clean Air Act, Section 112(b))	
HAPS (lbs/gal)	ND
HAPS (lbs/gal of Solids)	ND
HAPS (lbs/lb of Solids)	ND

## Section 16 — Other Information

REVISION NUMBER: 05

ADDITIONAL INFORMATION: This MSDS is prepared in accordance with FED-STD-313D and meets the requirements of 29 CFR 1910.1200

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.

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\*\*\* END OF MSDS\*\*\*