

LOCTITE CORPORATION

1001 TROUT BROOK CROSSING
ROCKY HILL, CT 06067-3910
EMERGENCY PHONE: (860) 571-5100ISSUED 1/10/97
15:53:12
FAX: (860) 571-5465MATERIAL SAFETY DATA SHEET

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Anti-Seize Lubricant
 Item No.: 81343
 Part No.: 133AR
 Product Type: Lubricant

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS No.	%
Mineral oil	64742-52-5	40-50
COPPER*	7440-50-8	10-15
GAS OIL	64741-44-2	10-15
ALUMINUM	7429-90-5	5-10
Mineral oil, petroleum distillates	64742-53-6	0-10
Graphite	7782-42-5	1-3
Lithium soap	7620-77-1	1-3
SILICA, AMORPHOUS, precipitated	112926-00-8	1-3

* This component is listed as a SARA Section 313 Toxic Chemical.

Ingredients which have exposure limits

Exposure Limits (TWA) Ingredients	ACGIH (TLV)	OSHA (PEL)	OTHER
Mineral oil	5 mg/m3 mist	5 mg/m3 mist	5 mg/m3 mist
COPPER	1 mg/m3 dust	1 mg/m3 dust	None
GAS OIL	5mg/m3 TWA mist	5mg/m3 TWA mist	None
ALUMINUM	10 mg/m3 dust	15 mg/m3 dust	None
Mineral oil, petroleum distillates	5 mg/m3 mist	5 mg/m3 mist	None
Graphite	2.5 mg/m3 dust, respirable	2.5 mg/m3 dust, respirable	None
SILICA, AMORPHOUS, precipitated	10 mg/m3 TWA	6 mg/m3 TWA	None
Exposure Limits (STEL) Ingredients	ACGIH (TLV)	OSHA (PEL)	
Mineral oil	10 mg/m3 mist	None	
GAS OIL	10 mg/m3 mist	None	
Mineral oil, petroleum distillates	10 mg/m3 mist	None	

3. HAZARDS IDENTIFICATION

Toxicity: May irritate eyes or skin. Vapors or direct contact may irritate or burn nose and throat. Swallowing may irritate digestive tract and cause nervous system depression. Prolonged skin contact with copper may cause sensitization dermatitis. Copper dusts and mists are eye and mucous membrane irritants and skin sensitizers. Swallowing copper compounds may cause vomiting and collapse. Target organs include respiratory system, nasal septum, skin, eyes, gastrointestinal system, kidneys, liver, and cardiovascular system.

Primary Routes of Entry: Ingestion, inhalation, skin and eye contact.

Signs and symptoms of Exposure: May cause skin or eye irritation with prolonged or repeated contact. Metal-fume fever, metallic taste, discoloration of skin or hair may indicate exposure to copper. Hemolysis, jaundice, anuria, hypotension, and convulsions may indicate acute copper poisoning.

Existing Conditions Aggravated by Exposure: Graphite powder: emphysema, asthma, and other

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3. HAZARDS IDENTIFICATION (continued)

respiratory problems.

Ingredients	Literature Referenced Target Organ and Other Health Effects	Carcinogen		
		NTP	IARC	OSHA
Mineral oil	IRR	NO	NO	NO
COPPER	BLO CNS GAS IMM IRR KID LIV MUT SEN SKI	NO	NO	NO
GAS OIL	No Data	NO	NO	NO
ALUMINUM	IRR LUN	NO	NO	NO
Mineral oil, petroleum distillates	IRR	NO	NO	NO
Graphite	LUN	NO	NO	NO
Lithium soap	No Data	NO	NO	NO
SILICA, AMORPHOUS, precipitated	NUI	NO	NO	NO

Abbreviations

BLO Blood	CNS Central nervous system
GAS Gastrointestinal	IMM Immune system
IRR Irritant	KID Kidney
LIV Liver	LUN Lung
MUT Mutagen	NUI Nuisance dust
SEN Sensory	SKI Skin

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Keep individual calm. Obtain medical attention.
 Inhalation: Oil mist: Remove to fresh air. If symptoms persist, obtain medical attention.
 Skin Contact: Flush with water.
 Eye Contact: Flush at least 15 minutes with water. Obtain medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: None Method: Tag Closed Cup
 Recommended Extinguishing Agents: Carbon dioxide, foam, dry chemical
 Hazardous Products formed by Fire or Thermal Decomp: Metal vapors, oxides of carbon, nitrogen, barium, zinc, sulfur; hydrogen sulfide.
 Unusual Fire or Explosion Hazards: None
 Explosive Limits:
 (% by volume in air) Lower 30% Aluminum metal
 1% Gas oil
 (% by volume in air) Upper Unknown Aluminum metal
 7% Gas oil

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case of spill or leak: Remove sources of ignition. Take up with an inert absorbent. Store in a closed container until disposal.

7. HANDLING AND STORAGE

Safe Storage: Keep away from sources of ignition and hot surfaces.
 (Contact Loctite Customer Service 1-800-243-4874 for shelf Life information)
 Handling: Keep away from eyes. Avoid prolonged skin contact. Avoid prolonged breathing of vapors.

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Product Name: Anti-Seize Lubricant
Item No.: 819438. EXPOSURE CONTROLS, PERSONAL PROTECTIONEyes: Safety glasses or goggles.
Skin: Neoprene or oil resistant plastic gloves.
Ventilation: Provide adequate local ventilation to maintain vapor concentration below TLV if misting of oil occurs or compound becomes dry.

See Section 2 for Exposure Limits.

9. PHYSICAL AND CHEMICAL PROPERTIESAppearance: Grey grease
Odor: Petroleum
Boiling Point: More than 500°F
pH: Does not apply
Solubility in Water: Nil
Specific Gravity: 1.06
Volatile Organic Compound (EPA Method 24) 13.2%; 140 grams per liter
Vapor Pressure: Less than 5mm at 80°F
Vapor Density: Approximately 2.9
Evaporation Rate (Ether = 1) Not available10. STABILITY AND REACTIVITYStability: Stable
Hazardous Polymerization: Will not occur
Incompatibility: Strong oxidizers, alkalies, mineral acids, selected amines.
Hazardous Decomposition Products (non-thermal): Noxious carbon compounds, hydrogen.11. TOXICOLOGICAL INFORMATION

See Section 3.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONSRecommended methods of disposal: Incinerate following EPA and local regulations. Do not incinerate pressurized cans.
EPA Hazardous Waste Number: NH - Not a RCRA Hazardous waste material14. TRANSPORT INFORMATIONDOT (49 CFR 172)
Domestic Ground Transport
Proper Shipping Name: Unrestricted
Hazard Class or Division: Unrestricted
Identification Number: None
Marine Pollutant: None
IATA
Proper Shipping Name: Unrestricted
Class or Division: Unrestricted
UN or ID Number: None15. REGULATORY INFORMATION

CA Proposition 65: No Prop65 chemicals are known to be present.

16. OTHER INFORMATIONEstimated NFPA(R) Code:
Health Hazard: 1
Fire Hazard: 1
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94%

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16. OTHER INFORMATION (continued)

Reactivity Hazard: 1
Specific Hazard: Does not apply

Estimated HMIS(R) Code:
Health Hazard: 1
Flammability Hazard: 1
Reactivity Hazards: 1
Personal Protection: See Section 8.

NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

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