

LOCTITE CORPORATION

12/10/98

ROCKY HILL, CONNECTICUT 06067  
EMERGENCY PHONE: (860) 571-5100

MATERIAL SAFETY DATA SHEET

Page 01 of 06

Permatex(R) Anti-Seize Lubricant 133MA  
81464

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Item No.: 81464  
Part No.: 133MA  
Product Type: Aerosol lubricant

## 2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS No.	%
n-HEPTANE	142-82-5	35-40
BUTANE	106-97-8	10-15
PROPANE	74-98-6	10-15
Mineral oil	64742-54-7	10-15
Trade Secret, NJ REG. 08-0100362-5008P	Proprietary	10-15
Graphite	7782-42-5	3-5
ALUMINUM	7429-90-5	0.1-3
COPPER*	7440-50-8	0.1-3
Trade Secret, NJ REG. 08-0100362-5004P	Proprietary	0.1-3

\* 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
n-HEPTANE	400 ppm TWA 1640 mg/M3	500 ppm TWA 1600 mg/M3	None
BUTANE	800 ppm TWA 1900mg/M3	800 ppm TWA 1900mg/M3	None
PROPANE	2500 ppm	1000 ppm 1800 mg/m3	None
Mineral oil	5mg/m3 TWA mist	5mg/m3 TWA mist	None
Graphite	2 mg/m3 resp	15 mppcf 5 mg/m3 resp	None
ALUMINUM	10 mg/m3 dust	15 mg/m3 dust 5 mg/m3 respir.	None
COPPER	1 mg/m3 dust	1 mg/m3 dust	None
Exposure Limits (STEL) Ingredients	ACGIH (TLV)	OSHA (PEL)	
n-HEPTANE	500 ppm 2050 mg/M3	500 ppm 2000 mg/M3	

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12/10/98

ROCKY HILL, CONNECTICUT 06067  
EMERGENCY PHONE: (860) 571-5100

MATERIAL SAFETY DATA SHEET

Page 02 of 06

Item No.: 81464

2. COMPOSITION, INFORMATION ON INGREDIENTS (continued)

PROPANE	Asphyxiant	Asphyxiant
Mineral oil	10 mg/m3 mist	None

3. HAZARDS IDENTIFICATION

**Toxicity:** Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, cardiovascular and reproductive systems.

**Primary Routes of Entry:** Exposure may be by inhalation and/or skin or eye contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

**Signs and Symptoms of Exposure:** Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists. Redness and itching or burning sensation may indicate eye or excessive skin exposure.

**Existing Conditions Aggravated by Exposure:** None known

Ingredients	Literature Referenced Target Organ and Other Health Effects	Carcinogen		
		NTP	IARC	OSHA
n-HEPTANE	CNS IRR	NO	NO	NO
BUTANE	CAR CNS IRR	NO	NO	NO
PROPANE	CAR CNS IRR	NO	NO	NO
Mineral oil	No Data	NO	NO	NO
Trade Secret, NJ REG. 08-0100362-5008P	No Data	NO	NO	NO
Graphite	LUN	NO	NO	NO
ALUMINUM	IRR LUN	NO	NO	NO
COPPER	BLO CNS GAS IMM IRR KID LIV MUT SEN SKI	NO	NO	NO
Trade Secret, NJ REG. 08-0100362-5004P	No Data	NO	NO	NO

LOCTITE CORPORATION 12/10/98  
ROCKY HILL, CONNECTICUT 06067  
EMERGENCY PHONE: (860) 571-5100

MATERIAL SAFETY DATA SHEET Page 03 of 06

Item No.: 81464

3. HAZARDS IDENTIFICATION (continued)

Abbreviations

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

4. FIRST AID MEASURES

Ingestion: Never give anything by mouth to an unconscious person. Do not induce vomiting. Seek medical attention.

Inhalation: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

Skin Contact: Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before reuse.

Eye Contact: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: Less than 0°F (Propellant) Method: Tag closed cup

Recommended Extinguishing Agents: Carbon dioxide, foam, dry chemical

Special Firefighting Procedures: Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Hazardous Products formed by Fire or Thermal Decomp: Irritating organic vapors; oxides of carbon.

Unusual Fire or Explosion Hazards: Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

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12/10/98

ROCKY HILL, CONNECTICUT 06067  
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MATERIAL SAFETY DATA SHEET

Page 04 of 06

Item No.: 81464

5. FIRE FIGHTING MEASURES

(continued)

Explosive Limits:  
(% by volume in air) Lower 1.0%  
(% by volume in air) Upper 10.0%

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case of spill or leak: Remove all sources of ignition. Maintain good

ventilation. Soak up with an inert absorbent.  
Store in a closed container until disposal.

#### 7. HANDLING AND STORAGE

Safe Storage: Keep away from heat, sparks, and open flame.  
(Contact Loctite Customer Service 1-800-243-4874 for shelf life information)  
Handling: Keep away from heat, sparks or open flame. Vapors will accumulate readily and may ignite explosively. Keep away from eyes. Avoid breathing of vapor and mists. Avoid skin contact. During use and until all vapors are gone: Keep area ventilated. Do not smoke, Extinguish all flames, pilot lights, and heaters. Turn off stoves, electric tools and appliances, and other sources of ignition. Consult NFPA Code. Use approved bonding and grounding procedures. Do not puncture, incinerate, or expose to temperature above 120°F. Heat from sunlight radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Wash hands after using.

#### 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes: Wear safety spectacles with unperforated sideshields.  
Skin: Chemical resistant gloves.  
Ventilation: Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.  
Respiratory: If personal exposure cannot be controlled below applicable exposure limits by ventilation, wear a properly fitted organic/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

LOCTITE CORPORATION

12/10/98

ROCKY HILL, CONNECTICUT 06067  
EMERGENCY PHONE: (860) 571-5100

MATERIAL SAFETY DATA SHEET

Page 05 of 06

Item No.: 81464

#### 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

(continued)

See Section 2 for Exposure Limits.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Grey liquid  
Odor: Solvent  
Boiling Point: Range: Less than 0°F to 238°F.  
pH: Does not apply  
Solubility in Water: Not available  
Specific Gravity: 0.73 (Base only)  
Volatile Organic Compound (EPA Method 24) 64%; 461 grams per liter of material

Vapor Pressure: Not available  
Vapor Density: More than 1 (base only)  
Evaporation Rate  
(Ether = 1) Faster

## 10. STABILITY AND REACTIVITY

Stability: Stable  
Hazardous Polymerization: Will not occur  
Incompatibility: Strong oxidizing agents  
Conditions to Avoid: Not available  
Hazardous Decomposition  
Products (non-thermal): None

## 11. TOXICOLOGICAL INFORMATION

See Section 3.

## 12. ECOLOGICAL INFORMATION

No data available

## 13. DISPOSAL CONSIDERATIONS

Recommended methods of disposal: Incinerate liquid obtained by spray-emptying cans following EPA and local regulations. Do not puncture or incinerate pressurized cans.

EPA Hazardous Waste Number: D001 - Hazardous waste per 40CFR 261.21

## 14. TRANSPORTATION INFORMATION

DOT (49 CFR 172)  
Domestic Ground Transport  
Proper Shipping Name: Consumer Commodity

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EMERGENCY PHONE: (860) 571-5100

12/10/98

MATERIAL SAFETY DATA SHEET

Page 06 of 06

Item No.: 81464

## 14. TRANSPORTATION INFORMATION

(continued)

Hazard Class or  
Division: ORM-D  
Identification Number: UN 1950  
Marine Pollutant: None  
IATA  
Proper Shipping Name: Aerosols, flammable, n.o.s.  
Class or Division: Division 2.1  
UN or ID Number: UN 1950

## 15. REGULATORY INFORMATION

CA Proposition 65: WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

## 16. OTHER INFORMATION

## Estimated NFPA(R) Code:

Health Hazard: 1  
Fire Hazard: 4  
Reactivity Hazard: 0  
Specific Hazard: Does not apply

## Estimated HMIS(R) Code:

Health Hazard: 2\*  
Flammability Hazard: 4  
Reactivity Hazards: 0  
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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