



LPS LABORATORIES

MSDS

MATERIAL SAFETY DATA SHEET

Section 1 - Product Identification and Use

Manufacturer's Name:	Trade Name:			
LPS Laboratories	TriFree Brake Cleaner			
Address:	Chemical Family:			
4647 Hugh Howell Road Tucker, GA 30085-5052	Aliphatic and Oxygenated Hydrocarbons			
Telephone Number: 770-934-7800	Part Number:			
Emergency Telephone Number: 1-800-424-9300 Chemtrec	03620			
Outside U.S.: (703) 527-3887				
Hazardous Materials Description and proper shipping name (49 CFR 172.101):				
Compound,Boiler, Preserving Liquid NMFC 50093 SUB 2 BRL/BXS CL55	CONSUMER COMMODITY ORM-D			
TSCA Inventory: All of the ingredients are listed on the TSCA inventory.	HMIS Labeling: <table><tr><td>Health: 1</td></tr><tr><td>Flammability: 3</td></tr><tr><td>Reactivity: 0</td></tr></table>	Health: 1	Flammability: 3	Reactivity: 0
Health: 1				
Flammability: 3				
Reactivity: 0				

Section 2 - Hazardous Ingredients / Identity Information

Ingredients	CAS Numbers	%WW	OSHA PEL	ACGIH TLV	OTHER LIMITS
n-Heptane	142-82-5	20-30	400 ppm	400 ppm	500 ppm STEL
Acetone	67-64-1	40-60	750 ppm	750 ppm	1,000 ppm STEL
Methyl Cyclohexane	108-87-2	10-20	400 ppm	400 ppm	None
Carbon Dioxide	124-38-9	4	10,000 ppm	5,000 ppm	30,000 ppm STEL
p-Amyl Acetate	628-63-7	2-5	100 ppm	100 ppm	None

Section 3 - Physical / Chemical Characteristics

Boiling point (F°):	> 133°F	Specific gravity (H₂O = 1):	0.762
Vapor pressure (mmHg) @ 100°F:	> 75	Percent volatile by volume (%):	100
Vapor density (Air = 1):	Approx. 3.0	Evaporation rate (n-butyl acetate=1):	>1
Solubility in water:	60%		
Appearance/Odor: Clear, colorless liquid with mild fruity odor.			

Section 4 - Fire and Explosion Hazard

Flash point (method used): Bulk liquid: 0° F TCC	Flammable limits: LEL = 1.2	UEL = 12.8
Extinguishing media: Foam, Carbon Dioxide, Dry Chemical.		
Firefighting procedures: Wear self-contained breathing apparatus approved by NIOSH. Use water to keep containers cool.		
Unusual fire and explosive hazards: Intense heat created by fire will cause aerosols to burst. Flammable vapors which are heavier than air may accumulate in low areas and/or spread along the ground away from handling site.		

Section 5 - Health Hazard Data

Primary route(s) of entry: Eyes, inhalation, skin.

N.E. = Not Established
N.A. = Not Applicable

Health hazard/effects of over exposure:

Eyes: Vapor and liquid may cause irritation.
Skin: Prolonged or repeated contact may cause drying of skin. Can be absorbed through skin.
Inhalation: Headache, light headedness, giddiness, central nervous system depression. May irritate mucosal tissue at high concentration.
Ingestion: Unlikely route of exposure. However, minute amounts aspirated into lungs during ingestion may cause chemical pneumonia. Can also cause severe gastrointestinal distress.

Medical conditions aggravated by exposure: Pre-existing eye, skin and respiratory disorders.

Chemicals listed as potential carcinogen: NTP: No IARC: No OSHA: No

Emergency and first aid procedures:

Eyes: Flush with plenty of cold water and contact physician.
Skin: Wash with soap and water; apply medicated skin cream.
Inhalation: Move to fresh air and contact physician. Give oxygen if indicated.
Ingestion: Do not induce vomiting. Contact physician immediately

Section 6 - Reactivity Data

Stability: Stable

Conditions to avoid: Open flames, electric arcs and other hot surfaces which may cause thermal decomposition.

Incompatibility (Materials to avoid): Oxygen and strong oxidizing agents.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, if burned.

Hazardous polymerization: Will not occur.

Section 7 - Precautions for Safe Handling and Use

Steps to be taken when material is released or spilled: Evacuate area and ventilate. Remove leaking container and transfer remaining product to another vessel. Mop or soak up spill with absorbent material and transfer to disposal drums using non-sparking equipment. Store in closed containers. Do not flush product to sewer.

Waste disposal methods: Dispose of in accordance with federal, state and local regulations for flammable hydrocarbons or reclaim by distillation.

RCRA Hazardous Waste No.: This material has the RCRA characteristic of ignitability and if discarded in its purchased form, would have the hazardous waste number D001.

CERCLA Reportable Quantity: 1,000 lb.

SARA TITLE III Chemicals: CAS #110-82-7

Volatile Organic Compound (VOC) Content: 48.6% by weight, 371 g/l.

Precautions to be taken in handling and storage: Store aerosols below 120°F and above 32°F. Store away from ignition sources and avoid breathing vapors and prolonged skin contact. Vapors will collect in low areas. Use and store with adequate ventilation. Bond and ground during transfer of liquid.

Section 8 - Control Measures

Respiratory Protection: None required if good ventilation is maintained. If vapor concentration rises above TLV, use NIOSH approved organic respirator or self-contained breathing apparatus.

Ventilation: Use adequate ventilation to maintain TLV and prevent accumulation of vapors in low lying areas.

Protective Gloves: Use solvent resistant gloves for liquid handling (Neoprene).

Eye protection: Goggles if splashing is likely, safety glasses otherwise.

Other protective equipment: None

Work/hygienic practices: Do no get in eyes, skin, or clothing. Wash hands with soap and water after use and/or before breaks, lunch, and at the end of work periods. Remove contaminated clothing and launder before reuse.

Section 9 - Preparation Date of MSDS

The foregoing technical information and recommendations are compiled from sources that are believed to be accurate and reliable. However, they are supplied without warranty or guarantee of any kind either expressed or implied. The purchaser is responsible for selecting and determining the suitability of products for purchaser's particular needs and we disclaim any responsibility for improper applications or misuse of our products in any manner whatsoever.

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LPS Laboratories

ITW

Form # 2579
MSDS LPS TriFree Brake Cleaner