



MATERIAL SAFETY DATA SHEET

KB 88 - The Ultimate Penetrant

Section 1 • Product and Company Identification

Manufacturer's Name: LPS Laboratories

Chemical Family: Petroleum Distillates

Trade Name: KB 88 – The Ultimate Penetrant

Telephone Number: 770-243-8800

Part Numbers: 02316, 02301, 02305, 02355

Emergency Telephone Number:

1-800-424-9300 Chemtrec;
Outside U.S.: (703) 527-3887

Address:

4647 Hugh Howell Road
Tucker, GA USA 30085-5052

Website: <http://www.lpslabs.com>

PLAIN LANGUAGE HAZARD SUMMARY

Material Safety Data Sheets can be confusing. Federal and State laws require us to include a great deal of technical information that probably won't help the non-professional. LPS includes this "PLAIN LANGUAGE HAZARD SUMMARY" to address the questions and concerns of the average worker. If you have additional health, safety or product questions, don't hesitate to call us at 800/241-8334.

Worker Toxicity

LPS KB 88 – The Ultimate Penetrant is a high performance lubricant designed to loosen metal parts that have bonded together due to rusting, oxidation, or other causes. It contains solvents that can be irritating to skin. Avoid extended exposure to unprotected skin. Don't get it in your eyes (it stings), or breath the vapor (if working on hot surfaces or heated tanks). Vapors from heated LPS KB 88 can make you dizzy and even sick. For more exposure and first aid information, refer to MSDS Sections 2, 8 and 11.

Flammability

LPS KB 88 – The Ultimate Penetrant is combustible having a flash point above 140°F and an autoignition temperature over 400°F. Under normal use conditions flammability isn't a concern, but don't apply the product onto red-hot metal surfaces or near sparks.

Disposal

LPS KB 88 – The Ultimate Penetrant in non-aerosol form is not hazardous for disposal; however, if it becomes contaminated with another substance, the resulting mixture may fall under a hazardous classification. See section 13 for more details.



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Section 2 • Hazards Identification

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency Overview: Aerosol: DANGER: FLAMMABLE. Aerosol contents under pressure.

Bulk: WARNING: COMBUSTIBLE LIQUID AND VAPOR. Harmful or Fatal if Swallowed.

Primary route(s) of entry: Skin and Eye contact. Inhalation.

Potential Acute Health Effects:

Eyes: Irritating to eyes

Skin: Repeated exposure may cause skin dryness or cracking.

Inhalation: Excessive inhalation of vapors can cause irritation of the respiratory tract, nausea, dizziness or headache.

Ingestion: Product has a low order of acute oral toxicity, but ingestion of large quantities may cause nausea, vomiting, and gastrointestinal irritation. May cause injury if aspirated into lungs.

Potential Chronic Health Effects:

Carcinogenic Effects: NTP: No IARC: No OSHA: No

Mutagenic Effects: None

Teratogenic Effects: None

Medical conditions aggravated by exposure: Persons with pre-existing central nervous system (CNS) disease, neurological conditions, skin disorders, chronic respiratory diseases, or impaired liver or kidney function should avoid exposure.

Signs and Symptoms

Stinging in eyes. Repeated or prolonged skin contact can cause redness, irritation, and scaling of the skin (dermatitis). Breathing of high vapor concentrations may cause headaches, stupor, irritation of throat and eyes, and kidney effects.

Section 3 • Composition / Information on Ingredients

Component	CASRN	Percent by Weight
Solvent Naphtha (Petroleum), Heavy Aromatic	64742-94-5	25 – 35 %
Distillates (Petroleum), Hydrotreated Light	64742-47-8	15 – 25 %
Dipropylene Glycol Methyl Ether Acetate	88917-22-0	15 – 25 %
Dipropylene Glycol Butyl Ether	29911-28-2	5 – 15%
Distillates (Petroleum), Hydrotreated Middle	64742-46-7	5- 15 %
Carbon Dioxide propellant (aerosol only)	124-38-9	1 – 4 %



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Section 4 • First Aid Measures

- Eyes:** Check for and remove contact lenses. If irritation or redness develops, flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. Do not use eye ointment. Seek medical attention immediately.
- Skin:** Remove contaminated shoes and clothing. Clean affected area thoroughly with mild soap and water. Do not use ointments. Seek medical attention if irritation persists.
- Inhalation:** Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, seek medical attention immediately.
- Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Do not leave victim unattended. Seek medical attention immediately.

Section 5 • Fire Fighting Measures

Products of Combustion: Carbon monoxide and carbon dioxide.

Firefighting media: SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosions.

Sensitivity to Impact: None **Sensitivity to Static Discharge:** None

Protection Clothing (Fire): Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles.

Special Remarks on Explosion Hazards: Aerosols may explode upon heating, spread fire and overcome sprinkler systems.

Section 6 • Accidental Release Measures

Small Spill and Leak: Absorb with an inert material and dispose of properly.

Large Spill and Leak: For large spills, secure the area and control access. Dike far ahead of a liquid spill to ensure complete collection. Pick up free liquid for disposal using absorbent pads, sand, or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal.

Section 7 • Handling and Storage

Handling: DO NOT spray into or around ignition sources. After handling, always wash hands thoroughly with soap and water. Use only with adequate ventilation. Avoid breathing vapors or spray mists.

Storage: Keep container in a cool, well-ventilated area. Avoid all sources of ignition (spark or flame). Store below 120°F.

Precautions to be taken in handling and storage: Store aerosols as Level 3 Aerosol (NFPA 30B). Store all materials in dry, well-ventilated area. Avoid breathing vapors.



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Section 8 • Exposure Controls / Personal Protection

Ingredients	CASRN	OSHA PEL-TWA	ACGIH-TLV	Other Limits
Solvent Naphtha (Petroleum), Heavy Aromatic	64742-94-5	Not established	Not established	Not available
Distillates (Petroleum), Hydrotreated Light	64742-47-8	Not established	Not established	100 ppm (supplier recommended TWA)
Dipropylene Glycol Methyl Ether Acetate	88917-22-0	100 ppm	100 ppm	Not available
Dipropylene Glycol Butyl Ether	29911-28-2	Not established	Not established	Not established
Distillates (Petroleum), Hydrotreated Middle	64742-46-7	5mg/m ³ /8 hrs	5mg/m ³ /8 hrs	10 mg/m ³ UK ST EXP (15 min.)
Carbon Dioxide propellant (aerosol only)	124-38-9	10,000 ppm	5,000 ppm	30,000 ppm ACGIH STEL

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

Personal Protection:

Eyes: Safety glasses.

Respiratory : Use an organic vapor phase cartridge-style respirator if ventilation is inadequate.

Hands: Polyvinyl alcohol (PVA) gloves are preferred; nitrile gloves are acceptable for short-term use.

General Hygiene Considerations: Wash thoroughly after handling. Have eye-wash facilities immediately available.

Section 9 • Physical and Chemical Properties

Appearance:	Liquid.	Colour:	Clear red.
Odor/Taste:	Characteristic.	Vapor Pressure:	<0.05mmHg @ 20 °C
Solubility Description:	Not soluble in water.	Evaporation Rate:	<0.1(BuAc=1)
Boiling Point (°C):	213 @ 760mmHg	Flash Point (°C):	>60°C (141°F)
Specific Gravity (Water=1):	0.86-0.88 @ 20 °C	Flash Point Method:	Tag-Closed Cup.
Vapour Density (air=1):	>1	Auto Ignition Temperature (°C):	>228°C(442°F)
V.O.C. Content:	426 g/L	Partition Coefficient (octanol/water):	<1
Flammable limits (estimated):	LOWER: 0.6% UPPER: 7%	Viscosity:	<3.8 cSt @ 40°C
pH:	Not applicable		



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Section 10 • Stability and Reactivity

Stability and Reactivity: The product is stable.

Incompatibility with Various Substances: Extremely reactive or incompatible with oxidizing agents.

Hazardous decomposition products: These products are carbon oxides (CO, CO₂)

Hazardous polymerization: Will not occur.

Section 11 • Toxicological Information

Acute and Chronic Toxicity

A: General Product Information

Following exposure to vapors, this material can produce central nervous system depression. High atmospheric concentrations can result in eye, nasal and respiratory tract irritation. However, if handled in accordance with good industrial hygiene practice, this product will not present a significant hazard in the workplace.

Ingredients	CASRN	LC-50	LD-50
Solvent Naphtha (Petroleum), Heavy Aromatic	64742-94-5	>590 mg/m ³ /4H/ rat	>2 mL/kg / rabbit
Distillates (Petroleum), Hydrotreated Light	64742-47-8	>6.8 mg/L	> 5 g/kg acute oral / rat
Dipropylene Glycol Methyl Ether Acetate	88917-22-0	Not available	Not available
Dipropylene Glycol Butyl Ether	29911-28-2	Not available	1620 uL/kg /rat
Distillates (Petroleum), Hydrotreated Middle	64742-46-7	Not available	Not available
Carbon Dioxide propellant (aerosol only)	124-38-9	Not available	Not appropriate

Section 12 • Ecological Information

Component Data: Acute Aquatic Toxicity

Component	CASRN	Test	Species	Results
Solvent Naphtha (Petroleum), Heavy Aromatic	64742-94-5		Not established	
Distillates (Petroleum), Hydrotreated Light	64742-47-8	96-hour LC ₅₀	Oncorhynchus mykiss	2,900 µg/L
Dipropylene Glycol Methyl Ether Acetate	88917-22-0		Not established	
Dipropylene Glycol Butyl Ether	29911-28-2		Not established	
Distillates (Petroleum), Hydrotreated Middle	64742-46-7		Not established	
Carbon Dioxide propellant (aerosol only)	124-38-9		Not established	

For the 64742-47-8 component, no toxicity has been observed in water due to extremely low water solubility. If material is spilled on soil, some potential toxic effects could occur before biodegradation could remove material.

If spilled, the 64742-46-7 constituent may kill grasses and small plants by interfering with transpiration. Spilled material may coat gill structures of fish resulting in suffocation if spilled in shallow, running water. This product may be toxic to amphibians by preventing dermal respiration. This product may also cause gastrointestinal distress to birds and mammals through ingestion. Biodegradation of this product is possible within 90 to 120 days in aerobic environments at temperatures above 21°C.



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Section 13 • Disposal Considerations

Waste Status: In its purchased form, non-aerosol material does not meet the definition of a RCRA hazardous waste. However, full aerosols are a RCRA hazardous waste carrying waste code D003.

Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information inaccurate, incomplete, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive than federal laws and regulations.

Section 14 • Transport Information

Aerosols Only

Mode	Shipping Name	Hazard Class	Subclass	UN Number	Technical Name	Hazard Label	Packing Group	Emergency Response Guide
D.O.T. Ground	Consumer Commodity	ORM-D	NA	1950	NA	ORM-D	NA	NA
IATA	AEROSOLS, flammable	2.1	NA	1950	NA	Flammable Gas	NA	NA
IMDG (Regular)	AEROSOL	2.1	NA	1950	NA	Flammable Gas	NA	F-D, S-U
IMDG (Special)	Dangerous Goods in Limited quantities of Class 2	NA	NA	1950	NA	NA	NA	F-D, S-U

Non-Aerosols of this product are not regulated by any mode of transportation.

Section 15 • Regulatory information

U.S. Federal Regulations:

TSCA 8(b) inventory: All of the ingredients are listed on the TSCA inventory or are exempt.

RCRA Hazardous Waste No.: D003 (aerosols only)

CERCLA Sections 102a/103 Hazardous Substances (40 CFR part 302) Reportable Quantity: none

SARA TITLE III Sections 311/312 hazardous Categorization (40 CFR part 370): Sudden Release of Pressure (aerosol only), Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard.

SARA TITLE III Section 313: No individual section 313 component is present at or above 1%.

Hazardous Air Pollutants (U.S. EPA): None

State Regulations:

New Jersey RTK: Solvent naphtha (petroleum), heavy aromatic (CASRN: 64742-94-5), Distillates (Petroleum), Hydrotreated Light (CASRN: 64742-47-8), Dipropylene glycol methyl ether acetate (CASRN: 88917-22-0), Dipropylene Glycol n- Butyl Ether (CASRN: 29911-28-2), Distillates (Petroleum), Hydrotreated Middle (CASRN:64742-46-7)

California Proposition 65: None.


California and OTC States: This product conforms to consumer regulations (VOC< 50%).



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Section 16 • Other Information

		HMIS-III	NFPA	
MSDS# 12316		Health: [] 1	flammability	
Responsible Name: Ed Williams		Flammability: 2		reactivity
Technical Manager		Physical Hazard: 2 (aerosol)		
		0 (other)		

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Ed Williams, Technical Manager
LPS Laboratories
A division of Illinois Tool Works

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