

MATERIAL SAFETY DATA SHEET

OPEN GEAR & WIRE ROPE LUBE - AEROSOL 11473

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME OPEN GEAR & WIRE ROPE LUBE - AEROSOL (11473)

PART No. 11473

SUPPLIER Highline Warren LLC
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2. COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	WEIGHT
*HEPTANE	142-82-5	20-30 %
*ASPHALT (BITUMENS)	8052-42-4	20-30 %
*PROPANE	74-98-6	10-20 %
*BUTANE	106-97-8	10-20 %
RESIDUAL OILS, PETROLEUM, SOLVENT-DEWAXED	64742-62-7	10-20 %

* This chemical(s) is hazardous according to OSHA/WHIMIS criteria

COMPOSITION COMMENTS Refer to section eight for exposure limits on ingredients.
Chemical ingredients not regulated by OSHA or SARA are treated confidentially.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Extremely flammable liquid or liquefied gas. Irritating to skin. Vapours may cause

drowsiness and dizziness.

HEALTH HAZARDS, GENERAL	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
SENSITIZATION	No known information.
CARCINOGENICITY	OSHA: Not regulated. NTP: Not listed.
TERATOGENICITY	No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.
HEALTH WARNINGS	INHALATION. The solvent vapors can be harmful and cause headache, nausea and intoxication. SKIN CONTACT. Irritating. Repeated or prolonged contact can result in drying of the skin. EYE CONTACT. Irritating. INGESTION. Dangerous by ingestion.
ROUTE OF ENTRY	Inhalation. Skin and/or eye contact. Ingestion. Skin absorption.

4. FIRST AID MEASURES

INHALATION	Remove victim immediately from source of exposure. Move the exposed person to fresh air at once. For breathing difficulties oxygen may be necessary. If breathing stops, provide artificial respiration. Get medical attention.
EYES	Rinse the eye with water immediately. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
SKIN	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
INGESTION	DO NOT INDUCE VOMITING! Get medical attention immediately!

5. FIRE FIGHTING MEASURES

FLASH POINT (°C)	-104 (-156 F) Estimated.
FLAMMABILITY LIMIT - LOWER(%)	1.2
FLAMMABILITY LIMIT - UPPER(%)	9.5
EXTINGUISHING MEDIA	Use: Foam. Carbon dioxide (CO2). Dry chemicals, sand, dolomite etc.
SPECIAL FIRE FIGHTING PROCEDURES	Use water to keep fire exposed containers cool and disperse vapors. Water spray may be used to flush spills away from exposures and dilute spills to non-flammable mixtures. Avoid water in straight hose stream; will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control. Use special protective clothing. Regular protection may not be safe. Prevent inhalation of fumes and gases.
UNUSUAL FIRE & EXPLOSION HAZARDS	Volume and pressure increases strongly when heated. Risk of container explosion in fire.
HAZARDOUS COMBUSTION PRODUCTS	Acrid smoke/fumes. Oxides of: Carbon.
PROTECTIVE MEASURES IN CASE OF FIRE	Self-contained breathing equipment and chemical resistant clothing recommended.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Minimize skin contact. Avoid breathing vapors. Wear an appropriate respirator if exposure exceeds recommended guidelines. Remove sources of ignition.
PRECAUTIONS TO PROTECT THE ENVIRONMENT	Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with applicable government regulations.
SPILL CLEAN-UP PROCEDURES	Carefully collect spilled material in closed containers and leave for disposal according to local regulations. Provide good ventilation. Use appropriate protective clothing. Rinse area with water. Do not let washing down water contaminate ponds or waterways.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS	Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Containers to be kept tightly closed. Eye wash and emergency shower must be available at the work place.
STORAGE PRECAUTIONS	Keep away from heat, sparks and open flame. Store at temperature below 122°F. Store separated from: Acids. Oxidizing materials.
STORAGE CRITERIA	Flammable liquid storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENT	STD	TWA	STEL	TWA	STEL
HEPTANE	OSHA	500 ppm	N/E	2000 mg/m3	N/E
	ACGIH	400 ppm	500 ppm	1640 mg/m3	2050 mg/m3
	NIOSH	85 ppm	440 ppm (ceiling)		
ASPHALT (BITUMENS)	OSHA			N/E	
	ACGIH			0.5 mg/m3 (ihl)	**A4
	NIOSH	N/E	5 mg/m3 **Ca		
PROPANE	OSHA	1000 ppm			
	ACGIH	1000 ppm	(C1-C4 Alkanes)		
BUTANE	OSHA	800 ppm			
	ACGIH	800 ppm			
RESIDUAL OILS, PETROLEUM, SOLVENT-DEWAXED	OSHA			5 mg/m3 (oil mist)	
	ACGIH			5 mg/m3 (oil mist)	10 mg/m3 (oil mist)

PROTECTIVE EQUIPMENT

**ENGINEERING CONTROLS**

Use engineering controls to reduce air contamination to permissible exposure level.

VENTILATION

No specific ventilation requirements noted, but forced ventilation may still be required if air contamination exceeds acceptable level.

RESPIRATORS

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists. In areas with inadequate ventilation, use approved chemical or mechanical filters designed to remove a combination of particles and vapor.

PROTECTIVE GLOVES

Chemical resistant gloves required for prolonged or repeated contact. Use protective gloves made of: Neoprene, nitrile, polyethylene or PVC. or latex.

EYE PROTECTION

Wear splash-proof eye goggles to prevent any possibility of eye contact.

PROTECTIVE CLOTHING

Wear appropriate clothing to prevent repeated or prolonged skin contact.

HYGIENIC WORK PRACTICES

Wash at the end of each work shift and before eating, smoking and using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE	Aerosol.		
SOLUBILITY DESCRIPTION	Insoluble in water.		
BOILING POINT (°C, range)	-42 (-44°F)	Pressure	
DENSITY	0.74	Temperature (°C)	15.6 (60°F)
VAPOR DENSITY (air=1)	>1		
EVAPORATION RATE	<1	Reference	EtEt=1

10. STABILITY AND REACTIVITY

STABILITY	Normally stable.
CONDITIONS TO AVOID	Avoid contact with acids and oxidizing substances. Avoid heat, flames and other sources of ignition.
HAZARDOUS POLYMERIZATION	Will not polymerize.
HAZARDOUS DECOMPOSITION PRODUCTS	Oxides of: Carbon.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION No experimental toxicological data on the preparation as such is available.

COMPONENT	HEPTANE
TOXICOLOGICAL DATA	Irritating effects. WHMIS (Canada) Skin. D2B - R38
TOXIC DOSE - LD 50	222 mg/kg (ivn-mus)
TOXIC CONC. - LC 50	15900 ppm/-- (inh-mus)
CARCINOGENICITY	OSHA: Not regulated. NTP: Not listed. IARC: Not listed as a Group 1, 2A, or 2B agent. EPA-D designation: Not classifiable as to human carcinogenicity.
COMPONENT	ASPHALT (BITUMENS)
TOXIC DOSE - LD 50	No Information Available (NIA).
TOXIC CONC. - LC 50	No Information Available (NIA).
CARCINOGENICITY	MAK-2 designation: Substances that are considered to be carcinogenic for man. IARC-3 designation: Not classifiable as to Carcinogenicity to Humans. Asphalt contains polynuclear aromatic compounds that are considered carcinogens by NTP and IARC.
COMPONENT	PROPANE
TOXIC DOSE - LD 50	1000 mg/kg (oral rat)
TOXIC DOSE - LD 50 SKIN	1800 mg/kg (skn rbt)
TOXIC CONC. - LC 50	No Information Available (NIA).
COMPONENT	BUTANE
TOXIC DOSE - LD 50	No Information Available (NIA).
TOXIC CONC. - LC 50	680 mg/m ³ /2h (inh-mus)
COMPONENT	RESIDUAL OILS, PETROLEUM, SOLVENT-DEWAXED
TOXICOLOGICAL DATA	Corrosive effects. Draize Eye. Rabbit. 6-15/120 Corrosive effects. Draize Skin. Rabbit. 0.5-3/8.0
TOXIC DOSE - LD 50	> 2000 estimated mg/kg (oral rat)
TOXIC DOSE - LD 50 SKIN	> 2000 estimated mg/kg (skn rbt)
TOXIC CONC. - LC 50	> 5 estimated mg/l (inh-rat)
CARCINOGENICITY	Base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects.

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION No data on possible environmental effects have been found.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS Dispose of in accordance with Local Authority requirements. Confirm disposal procedures with environmental engineer and local regulations.

14. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME CONSUMER COMMODITY
DOT HAZARD CLASS ORM-D (Other Regulated Material D).
U.S. DOT HAZARD LABEL No DOT label requirement

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

COMPONENT	SARA 302	CERCLA	SARA 313
RESIDUAL OILS, PETROLEUM, SOLVENT-DEWAXED	No	No	No
HEPTANE	No	No	No
ASPHALT (BITUMENS)	No	No	No
PROPANE	No	No	No
BUTANE	No	No	No

CLEAN AIR ACT

COMPONENT	CAA Accidental Release Prevention
PROPANE	10 000 lbs
BUTANE	10 000 lbs

SARA HAZARD CATEGORIES Acute Chronic Fire

US STATE REGULATIONS

COMPONENT	CA	MA	FL	MN	NJ	PA	RI
ASPHALT (BITUMENS)	C	Yes			Yes	Yes	

STATE REGULATORY STATUS CALIFORNIA PROPOSITION 65: This product may contain the following chemical(s) considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity, and for which warnings are now required:
Bitumens (extracts of steam refined and air refined).

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHMIS

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

LABEL(S) FOR SUPPLY



CONTROLLED PRODUCT CLASSIFICATION

B5 - Flammable Aerosols
D2B - Irritating and/or Chronically Toxic Materials

Risk phrases

R-11 Highly flammable.
R-38 Irritating to skin.
R-67 Vapours may cause drowsiness and dizziness.

GLOBAL INVENTORIES

COMPONENT	CAN	US	EU	AUS	JAP	KOR	PHLP	CHN
HEPTANE	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
ASPHALT (BITUMENS)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
PROPANE	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
BUTANE	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
RESIDUAL OILS, PETROLEUM, SOLVENT-DEWAXED	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes

COMPONENT
HEPTANE

TSCA 12(b) Export Notification
Yes

TSCA 12(b) NOTICE: This product contains one or more components that require reporting under TSCA Section 12(b) when exported. This product may be subject to US EPA requirements for annual or one-time export notification per country. Contact the Regulatory Compliance Manager for more information.
Heptane, CAS# 142-82-5 (TSCA Section 4)
CANADA CEPA: All components of this product comply with new substance notification requirements under the Canadian Environmental Protection Act (CEPA).

16. OTHER INFORMATION

NFPA-HMIS HAZARD RATING

HEALTH	Irritation, minor residual injury (1) - HMIS/NFPA
FLAMMABILITY	Extremely flammable (4) - HMIS/NFPA
REACTIVITY	Normally Stable (0) - HMIS/NFPA
PERSONAL PROTECTION INDEX	B - Safety Eyewear and Gloves
REVISION COMMENTS	Section 11: Toxicological Information Section 15: WHMIS Section 15: Inventory Status

DATE 1-29-2015

DISCLAIMER

While the information and recommendations set forth herein are believed to be accurate as of the date thereof, the company makes no warranty with respect thereto and disclaims all liability from reliance therein.

* Information revised since previous MSDS version