SAFETY DATA SHEET

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards | SDS Revision: 1.0 | SDS Revision Date: 4/30/2015

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	**MOLY-GRAPH® EXTREME PRESSURE MULTI-PURPOSE LITHIUM GREASE**
1.2	Chemical Name:	NA
1.3	Synonyms:	P/N 97843
1.4	Trade Names:	CRC Industries
1.5	Product Uses & Restrictions:	Lubricating Grease
1.6	Distributor's Name:	Harbor Freight Tools USA, Inc.
1.7	Distributor's Address:	26541 Agoura Road, Calabasas, CA 91302 USA
1.8	Emergency Phone:	**CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN 676687)**
1.9	Business Phone / Fax:	+1 (805) 388-1000

2. HAZARDS IDENTIFICATION

2.1 Hazard Identification:

This product is classified as a **HAZARDOUS SUBSTANCE** but not as **DANGEROUS GOODS** according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia). In the event of an exposure or medical inquiry involving this product, please contact a physician or local poison control center, who may seek advice from the U.S. manufacturer, and show them this SDS. Aqueous solution.

DANGER! MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.

Classification: Asp. Tox. 1;

Hazard Statements (H): H304 – May be fatal if swallowed and enters airways. H350 – May cause cancer.

Precautionary Statements (P): P280 – Wear protective gloves/eye protection. P301+P310 – IF SWALLOWED: Immediately call a POISON CENTER/doctor. P331 – Do NOT induce vomiting. P405 – Store locked up. P501 – Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m³) ACGIH ppm TLV	ACGIH ppm STEL	NOHSC ppm ES-TWA	NOHSC ppm ES-STEL	NOHSC ppm ES-PEAK	OSHA ppm PEL	OSHA ppm STEL	OSHA ppm IDLH	OTHER
SEVERELY HYDROTREATED NAPHTHENIC PETROLEUM OIL *	64742-52-5	NA	265-155-0	60-100	(5)	(10)	(5)	NA	NA	(5)	NA	NA	OIL MIST
	* contains less than 3% DMSO; Asp. Tox. 1; H304												
LITHIUM 12-HYDROXYSTEARATE	7620-77-1	NA	231-536-5	7-13	15	NA	NE	NA	NA	NA	15	NA	
ZINC DIALKYLDITHIOPHOSPHATE	68649-42-3	NA	272-028-3	0.5-1.5	NA	NA	NF	NF	NF	NA	NA	NA	
MOLYBDENUM DISULFIDE	1317-33-5	QA4697000	215-263-9	0.1-1	NA	NA	NF	NF	NF	NA	NA	NA	
	Acute Tox. 4; H332												
GRAPHITE	7782-42-5	MD9659600	231-955-3	0.1-1	0.2	NA	NF	3	NF	0.1	NA	1250	FUME

4. FIRST AID MEASURES

4.1 First Aid:

Ingestion: **DO NOT INDUCE VOMITING.** Contact ChemTrec at +1 (703) 527-3887 or the nearest Poison Control Center or local emergency telephone number for assistance and instructions. Seek immediate medical attention. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.

Eyes: If product gets in the eyes, flush eyes thoroughly with copious amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If the eyes or face become swollen during or following use, consult a physician or emergency room immediately.

Skin: Remove contaminated clothing and wash affected areas with soap and water. If irritation persists, seek prompt medical attention. Do not wear contaminated clothing until after it has been properly cleaned.

Inhalation: Remove victim to fresh air at once. If breathing is difficult, administer supplemental oxygen and seek immediate medical attention. If breathing stops, perform artificial respiration.

4.2 Effects of Exposure:

Ingestion: If product is swallowed, may cause nausea, vomiting and/or diarrhea.

Eyes: May cause transient mild-eye irritation with short-term contact with liquid, spray or mist.

Skin: This product can cause mild, transient skin irritation with short-term exposure. This product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.

Inhalation: No significant adverse health effects are expected to occur upon short-term exposure to this product. Aspiration of liquid into the lungs can cause severe lung damage or death.

4. FIRST AID MEASURES – cont'd

4.3	Symptoms of Overexposure:	Eyes: Overexposure in eyes may cause redness, itching and watering. Skin: Symptoms of skin overexposure may include redness, itching, and irritation of affected areas The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.
4.4	Acute Health Effects:	Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.
4.5	Chronic Health Effects:	Contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
4.6	Target Organs:	Eyes, Skin, Respiratory System.
4.7	Medical Conditions Aggravated by Exposure:	Pre-existing dermatitis, other skin conditions, and disorders of the target organs (eyes, skin, and respiratory system).

HEALTH	**1**
FLAMMABILITY	**1**
PHYSICAL HAZARDS	**0**
PROTECTIVE EQUIPMENT	**B**
EYES / **SKIN**	

5. FIREFIGHTING MEASURES

5.1	Fire & Explosion Hazards:	This material can burn but will not readily ignite. This material will release vapors when heated above the flash point temperature that can ignite when exposed to a source of ignition. In enclosed spaces, heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flash point. Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and trace oxides of sulfur, phosphorus, zinc and nitrogen. Also, depending upon the conditions of use, low concentrations of hydrogen sulfide can be released.
5.2	Extinguishing Methods:	Dry chemical, foam, carbon dioxide, and water fog.
5.3	Firefighting Procedures:	Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personal. Avoid spraying water directly into storage containers because of danger of boil over. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. 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.

6. ACCIDENTAL RELEASE MEASURES

6.1	Spills:	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. For small spills (e.g., < 1 gallon (3.8 L)) wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows) and secure all sources of ignition. Remove spilled material with absorbent material and place into appropriate closed container(s) for disposal. Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas and outside of container with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse. For large spills (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Use ONLY non-sparking tools for recovery and cleanup. Transfer liquid to containers for recovery or disposal and solid diking material to separate containers for proper disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Keep spills and cleaning runoffs out of drains, municipal sewers and open bodies of water.

7. HANDLING & STORAGE INFORMATION

7.1	Work & Hygiene Practices:	Use normal hygiene practices. Avoid breathing vapors. Avoid direct skin contact. Wash hands thoroughly after using this product and before eating, drinking, or smoking.
7.2	Storage & Handling:	Use and store in a cool, dry, well-ventilated area. Keep away from excessive heat, open flames, sparks, and other possible sources of ignition. Do not store in unmarked containers or storage devices. Recommended maximum shelf life: 36 months.
7.3	Special Precautions:	Empty containers may contain product residue. Do not pressurize, cut, heat or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 Exposure Limits: ppm (mg/m^3)

	ACGIH		NOHSC			OSHA			OTHER
CHEMICAL NAME(S)	**TLV**	**STEL**	**ES-TWA**	**ES-STEL**	**ES-PEAK**	**PEL**	**STEL**	**IDLH**	
SEVERELY HYDROTREATED NAPHTHENIC PETROLEUM OIL	(5)	(10)	(5)	NA	NA	(5)	NA	NA	OIL MIST
LITHIUM 12-HYDROXYSTEARATE	15	NA	NE	NA	NA	NA	15	NA	
GRAPHITE	0.2	NA	NF	3	NF	0.1	NA	1250	FUME

8. EXPOSURE CONTROLS & PERSONAL PROTECTION – cont'd

8.2	Ventilation & Engineering Controls:	The use of mechanical dilution ventilation is recommended to maintain airborne concentrations below the recommended occupational exposure limits, whenever this material is used in a confined space, is heated above normal temperatures (up to 38 °C) or is agitated.	
8.3	Respiratory Protection:	Vaporization or misting is not expected at ambient temperatures. Therefore, the need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist pre-filter should be used. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).	
8.4	Eye Protection:	Safety glasses equipped with side shields should be adequate protection under most conditions of use. Wear goggles and/or face shield if splashing or spraying is anticipated. Wear goggles and face shield if material is heated above 125°F (51°C). Have suitable eye wash water available.	
8.5	Hand Protection:	Use gloves constructed of chemical resistant materials such as neoprene or heavy nitrile rubber if frequent or prolonged contact is expected.	
8.6	Body Protection:	Avoid prolonged and/or repeated skin contact. Use clean and impervious protective clothing (e.g., neoprene or Tyvek®) if splashing or spraying conditions are present. Protective clothing should include long-sleeves, apron, boots and additional facial protection. Remove oil contaminated clothing. Launder oil contaminated clothing before reusing. Contaminated leather goods should be removed promptly and discarded.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Red semi-solid grease.
9.2	Odor:	Mild petroleum odor.
9.3	Odor Threshold:	NA
9.4	pH:	NA
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	NA
9.7	Flashpoint:	246.1 °C (475 °F) COC
9.8	Upper/Lower Flammability Limits:	NA
9.9	Vapor Pressure:	< 0.1 mmHg
9.10	Vapor Density:	> 5.0
9.11	Relative Density:	0.90 @ 60 °F
9.12	Solubility:	Insoluble
9.13	Partition Coefficient (log P_{ow}):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature:	NA
9.16	Viscosity:	148.2 @ 100 °F SUS / 43.8 @ 210 °F SUS
9.17	Other Information:	VOC: 1.8 g/L; 0.015 lbs/gal (0.2% w/w)

10. STABILITY & REACTIVITY

10.1	Stability:	Stable at normal temperatures.
10.2	Hazardous Decomposition Products:	Fumes, smoke, carbon monoxide, silicon oxides.
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Open flames, sparks, high heat, and close proximity to incompatible substances.
10.5	Incompatible Substances:	Strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation:	NO	Absorption:	YES	Ingestion:	YES
11.2	Toxicity Data:	This product has NOT been tested on animals to obtain toxicology data. Toxicology data, found in scientific literature, is available for some of the components of the product and is not presented in this document.					
11.3	Acute Toxicity:	Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.					
11.4	Chronic Toxicity:	In long term studies (up to two years) no carcinogenic effects have been reported in any animal species tested.					
11.5	Suspected Carcinogen:	NA					

11. TOXICOLOGICAL INFORMATION

11.6	Reproductive Toxicity:	This product is not reported to produce reproductive toxicity in humans.
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.
	Teratogenicity:	This product is not reported to produce teratogenic effects in humans.
	Reproductive Toxicity:	This product is not reported to produce reproductive effects in humans.
11.7	Irritancy of Product:	See section 4.3
11.8	Biological Exposure Indices:	NE
11.9	Physician Recommendations:	The viscosity range of the product(s) represented by this SDS is between 100 and 400 SUS at 100°F. Accordingly, upon ingestion there is a moderate risk of aspiration. Careful gastric lavage or emesis may be considered to evacuate large quantities of material. Subcutaneous or intramuscular injection requires prompt surgical debridement.

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	There are no specific data available for this product.
12.2	Effects on Plants & Animals:	There are no specific data available for this product.
12.3	Effects on Aquatic Life:	There are no specific data available for this product.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Dispose of in accordance with federal, state, provincial & local regulations.
13.2	Special Considerations:	NA

14. TRANSPORTATION INFORMATION

The basic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.

14.1	49 CFR (GND):	NOT REGULATED
14.2	IATA (AIR):	NOT REGULATED
14.3	IMDG (OCN):	NOT REGULATED
14.4	TDGR (Canadian GND):	NOT REGULATED
14.5	ADR/RID (EU):	NOT REGULATED
14.6	SCT (MEXICO):	NOT REGULATED
14.7	ADGR (AUS):	NOT REGULATED

15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements:	This product does not contain any substances subject to SARA Title III, section 313 reporting requirements.
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities for the components of this product.
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory or are otherwise exempt.
15.4	CERCLA Reportable Quantity (RQ):	NA
15.5	Other Federal Requirements:	This material does not contain any Hazardous Air Pollutants (HAPs). None of the components in this product are listed as Priority Pollutants under the Clean Water Act (CWA). None of the components in this product are listed as Toxic Pollutants under the Clean Water Act (CWA).
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List. WHMIS D2B (Other Toxic Effects)
15.7	State Regulatory Information:	Lithium 12-Hydroxystearate is found on the following state criteria list: NJ. Molybdenum sulfide is found on the following state criteria list: MA. Graphite is found on the following state criteria list: FL, MA, MN, PA and WA. No other ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).

15. REGULATORY INFORMATION – cont'd

15.8	Other Requirements:	The primary components of this product are not listed in Annex I of EU Directive 67/548/EEC: Harmful (Xn). Risk Phrases (R): 65 – Harmful: may cause lung damage if swallowed. Safety Phrases (S): 1/2-53-45-46 – Keep locked up and out of reach of children. Avoid exposure – obtain special instructions before use. In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). If swallowed, seek medical advice immediately and show this container label.	

16. OTHER INFORMATION

16.1	Other Information:	**DANGER! MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.** Wear protective gloves/eye protection/face protection. IF ON SKIN: Wash with soap and water. If skin irritation or a rash occurs – Get medical advice/attention. Store in a well-ventilated place. Keep cool. Use only as directed. **KEEP LOCKED UP AND OUT OF REACH OF CHILDREN.**	
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.	
16.3	Disclaimer:	This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of ShipMate's & Harbor Freight Tools USA, Inc.'s knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness is not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.	
16.4	Prepared for:	**Harbor Freight Tools USA, Inc.** 26541 Agoura Road Calabasas, CA 91302 USA Tel: +1 (805) 388-1000 http://www.harborfreight.com	HARBOR FREIGHT TOOLS Quality Tools at Ridiculously Low Prices
16.5	Prepared by:	**ShipMate, Inc.** P.O. Box 787 Sisters, Oregon 97759-0787 USA Tel: +1 (310) 370-3600 Fax: +1 (310) 370-5700 http://www.shipmate.com	

DEFINITION OF TERMS

A large number of abbreviations and acronyms appear on a SDS. Some of these that are commonly used include the following:

GENERAL INFORMATION:

CAS No.	Chemical Abstract Service Number

EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists
C	Ceiling Limit
ES	Exposure Standard (Australia)
IDLH	Immediately Dangerous to Life and Health
OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short-Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average

FIRST AID MEASURES:

CPR	Cardiopulmonary resuscitation - method in which a person whose heart has stopped receives manual chest compressions and breathing to circulate blood and provide oxygen to the body.

HMIS-III HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard

HEALTH
FLAMMABILITY
PHYSICAL HAZARDS
PERSONAL PROTECTION

PERSONAL PROTECTION RATINGS:

A		**G**	
B		**H**	
C		**I**	
D		**J**	
E		**K**	
F		**X**	**Consult your supervisor or SOPs for special handling directions.**

OTHER STANDARD ABBREVIATIONS:

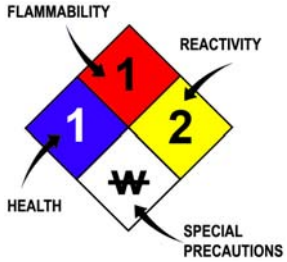
ML	Maximum Limit
mg/m3	milligrams per cubic meter
NA	Not Available
ND	Not Determined
NE	Not Established
NF	Not Found
NR	No Results
ppm	parts per million
SCBA	Self-Contained Breathing Apparatus

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:	
Autoignition Temperature	Minimum temperature required to initiate combustion in air with no other source of ignition
LEL	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source
UEL	Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source

HAZARD RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard
ACD	Acidic
ALK	Alkaline
COR	Corrosive
W	Use No Water
OX	Oxidizer
TREFOIL	Radioactive



TOXICOLOGICAL INFORMATION:

LD_{50}	Lethal Dose (solids & liquids) which kills 50% of the exposed animals s
LC_{50}	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD_{lo}	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD_{lo}, LD_{lo}, & LD_o or TC, TC_o, LC_{lo}, & LC_o	Lowest dose (or concentration) to cause lethal or toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TL_m	Median threshold limit
log K_{OW} or log K_{OC}	Coefficient of Oil/Water Distribution

REGULATORY INFORMATION:

WHMIS	Canadian Workplace Hazardous Material Information System
DOT	U.S. Department of Transportation
TC	Transport Canada
EPA	U.S. Environmental Protection Agency
DSL	Canadian Domestic Substance List
NOHSC	National Occupational Health and Safety Commission (Australia)
NDSL	Canadian Non-Domestic Substance List
PSL	Canadian Priority Substances List
TSCA	U.S. Toxic Substance Control Act
EU	European Union (European Union Directive 67/548/EEC)
WGK	Wassergefährdungsklassen (German Water Hazard Class)
HMIS-III	National Paint & Coatings Association Hazardous Materials Identification System

WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

EC (67/548/EEC) INFORMATION:

C	E	F	N	O	T	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful

CLP/GHS (1272/2008/EC) PICTOGRAMS:

GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment