



Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: Moly-Graph® Extreme Pressure Multi-Purpose Lithium Grease

Product Number (s): SL3141

Manufactured By:

CRC Industries, Inc.
885 Louis Drive
Warminster, PA 18974
www.crcindustries.com

General Information	(215) 674-4300
Technical Assistance	(800) 521-3168
Customer Service	(800) 272-8963
24-Hr Emergency (CHEMTREC)	(800) 424-9300

Section 2: Hazards Identification

Emergency Overview

Appearance & Odor: Grey semi-solid to solid grease with a faint petroleum odor

As defined by OSHA's Hazard Communication Standard, this product is nonhazardous.

Potential Health Effects:

EYE: May cause irritation.

SKIN: Repeated or prolonged contact can result in drying of the skin.

INHALATION: Heating can generate vapors that may cause respiratory irritation, nausea and headaches. Inhalation hazard at room temperature is unlikely due to the low volatility of this product.

INGESTION: Can cause stomach ache and vomiting. Main hazard, if ingested, is aspiration into the lungs and subsequent pneumonitis.

CHRONIC EFFECTS: Unknown

TARGET ORGANS: None known

Medical Conditions Aggravated by Exposure:

Skin or respiratory conditions

See Section 11 for toxicology and carcinogenicity information on product ingredients.

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Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Hydrotreated heavy naphthenic distillates	64742-52-5	70 - 90
Lithium 12-hydroxystearate	7620-77-1	5 – 10
Zinc, dithiophosphate di-C1-14-alkyl esters	68649-42-3	0.5 – 1.5
Molybdenum sulfide	1317-33-5	0.2 – 1
Graphite	7782-42-5	0.2 - 1

Section 4: First Aid Measures

Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.

Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.

Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.

Ingestion: Do not induce vomiting. Seek medical attention.

Note to Physicians: None available

Section 5: Fire-Fighting Measures

Flammable Properties: This product is nonflammable.

Flash Point:	> 400 F (COC)	Upper Explosive Limit:	7.0
Autoignition Temperature:	ND	Lower Explosive Limit:	0.9

Suitable Extinguishing Media: CO2, dry chemical, sand, dolomite, alcohol resistant foam, water spray

Products of Combustion: Oxides of carbon. Sulfur.

Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition. Avoid water in straight hose stream as it will scatter and spread fire.

Section 6: Accidental Release Measures

Personal Precautions: Use personal protection recommended in Section 8. Minimize skin contact.

Environmental Precautions: Take precautions to prevent contamination of ground and surface waters. Do not flush

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into sewers or storm drains. Advise authorities if product has entered waterways.

Methods for Containment & Clean-up: Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

Section 7: Handling and Storage

Handling Procedures: Keep container away from heat, sparks, and open flame. High temperatures may produce irritating vapors. Eye wash station should be available at work place. Keep containers closed when not in use. Ventilate well, especially in warmer environments.

Storage Procedures: Store in a cool dry area out of direct sunlight. Store separated from acids and oxidizing materials. Store away from sparks and open flame.

Aerosol Storage Level: NA

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURC E	
Hydrotreated heavy naphthenic distillate	5*	NE	5*	10*	NE		mg/m ³
Lithium 12-hydroxystearate	NE	NE	NE	NE	NE		
Zinc, dithiophosphate di-C1-14-alkyl esters	NE	NE	NE	NE	NE		
Molybdenum sulfide	NE	NE	10	NE	NE		mg/m ³
Graphite	15**	NE	2	NE	2.5	NIOSH	mg/m ³
N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated * – oil mist ** - mppcf							

Engineering Controls: Area should have ventilation to provide fresh air. Use local exhaust to prevent accumulation of vapors. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations

Respiratory Protection: None required for normal work where adequate ventilation is provided. Use NIOSH-approved self-contained positive pressure respirators in low circulation areas and for emergencies.

Eye/face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as latex or rubber. Also , use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Section 9: Physical and Chemical Properties

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Product Number (s):

Physical State: semi-solid grease
Color: grey
Odor: mild petroleum
Specific Gravity: 0.90 @ 60 F
Initial Boiling Point: ND
Freezing Point: ND
Vapor Pressure: < 0.1 mmHg @ 68 F
Vapor Density: > 5 (air = 1)
Evaporation Rate: < 0.01 (butyl acetate = 1)
Solubility: Insoluble in water
pH: NA
Volatile Organic Compounds: wt %: 0.2 g/L: 1.8 lbs./gal: 0.015

Section 10: Stability and Reactivity

Stability: Stable
Conditions to Avoid: None
Incompatible Materials: Avoid contact with acids and oxidizing substances.
Hazardous Decomposition Products: Oxides of carbon. Sulfur
Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

ACUTE EFFECTS

<u>Component</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Naphthenic distillates	LD50	> 5000 mg/kg	Oral	Rat
Naphthenic distillates	LD50	> 2000 mg/kg	Dermal	Rabbit
Naphthenic distillates	LC50	2.18 mg/L/4H	Inhalation	Rat

CHRONIC EFFECTS

Carcinogenicity:

	<u>Component</u>	<u>Result</u>
OSHA:	None listed	
IARC:	None listed	
NTP:	None listed	

Mutagenicity: None available

Other: Naphthenic distillates Base oils of this product contain < 3% DMSO Extractable total polycyclic aromatic compound (PAC) per IP 346.

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Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity: Naphthenic distillates: 48 Hr EC50 Daphnia magna: >1000 mg/L
Persistence / Degradability: None available
Bioaccumulation / Accumulation: None available
Mobility in Environment: None available

Section 13: Disposal Considerations

Disposal: This product is not a RCRA hazardous waste.

All disposal activities must comply with federal, state and local regulations. Local regulations may be more stringent than state or national requirements.

Section 14: Transport Information

Proper shipping description:

US DOT (ground): Not Regulated

Special Provisions: None

Section 15: Regulatory Information

U.S. Federal

Toxic Substances Control Act (TSCA):

All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Reportable Quantities (RQ's) exist for the following ingredients: None

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:

Fire Hazard	No
Reactive Hazard	No
Release of Pressure	No
Acute Health Hazard	No
Chronic Health Hazard	No

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
Zinc compounds (< 1.5%)

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Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

State Regulations

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):

This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: None

State Right to Know:

New Jersey: 1317-33-5
Pennsylvania: 7782-42-5
Massachusetts: 1317-33-5, 7782-5
Rhode Island : 7782-42-5

Additional Regulatory Information: None

Section 16: Other Information

NFPA: Health: 1 Flammability: 1 Reactivity: 0
HMIS: Health: 1 Flammability: 1 Reactivity: 0 PPE: B

Prepared By: Michelle Rudnick
CRC #: 2127
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Changes since last revision: MSDS reformatted in accordance with ANSI Z400.1-2004

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label.

CAS:	Chemical Abstract Service	NA:	Not Applicable
ppm:	Parts per Million	ND:	Not Determined
TCC:	Tag Closed Cup	NE:	Not Established
PMCC:	Pensky-Martens Closed Cup	g/L:	grams per Liter
PPE:	Personal Protection Equipment	lbs./gal:	pounds per gallon
TWA:	Time Weighted Average	STEL:	Short Term Exposure Limit
OSHA:	Occupational Safety and Health Administration	COC:	Cleveland Open Cup
ACGIH	American Association of Governmental Industrial Hygienists		
NIOSH	National Institute of Occupational Safety & Health		
mppcf	Millions of particles per cubic foot (of air)		