



Safety Data Sheet

Prepared according to 29 CFR 1910.1200.
United States.

1. IDENTIFICATION

Product name: Lithium EP Plus LP-10™ Grease
Other means of identification: SDS No. MP-015
Recommended use and restrictions: Semi-solid, multi-purpose, lithium grease.
Manufacturer information: Muscle Products Corp.
752 Kilgore Road
Jackson Center, PA 16133
www.mpclubricants.com
Information telephone: 1-814-786-0166 (Muscle Products Corp – normal business hours)
Emergency telephone (24 hr): **INFOTRAC** 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARD(S) IDENTIFICATION

Appearance: Cream. **Physical state:** Semi-solid. **Odor:** Petroleum.

Classification:	Skin corrosion / irritation	Category 2
	Serious eye damage / irritation	Category 2B

Symbol(s):



Signal Word: Warning.
Hazard Statement(s): Causes skin irritation.
Causes eye irritation.

Precautionary Statement(s)

Prevention: Wash exposed skin thoroughly after handling.
Wear protective gloves.
Response: **IF ON SKIN:** Wash with plenty of soap and water.
Specific treatment (see on this label).
If skin irritation occurs: Get medical attention.
Take off contaminated clothing and wash it before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical attention.
Storage: None.
Disposal: None.
General: Read product label before use.
If medical advice is needed, have container label or SDS on hand.

Hazards not otherwise classified (HNOC)

At elevated temperatures, or mechanical actions that create aerosols, vapors, mists or fumes, may be irritating to mucous membranes and respiratory tract.

Unknown acute toxicity data:

Acute toxicity, oral	0.0 %
Acute toxicity, dermal	0.0 %
Acute toxicity, inhalation	0.0 %

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS number	% by weight
Severely hydrotreated mineral oils consisting of one or more of the following: Distillates (petroleum), hydrotreated heavy naphthenic Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-52-5 64742-65-0	70 - 85 %
Asphaltic Resin	8052-42-4	20 - 30 %
Petroleum hydrocarbons	Confidential mixture	5 - 15 %

If CAS number is "confidential" and/or % by weight is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

- Inhalation:** Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact:** Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention. Wash contaminated clothing before reuse. Discard leather articles saturated with material.
- Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
- Ingestion:** Do NOT induce vomiting. If person is conscious, rinse mouth thoroughly with water. If spontaneous vomiting occurs, keep head below hips to avoid breathing product into lungs. Get medical attention if you feel unwell.

Most important symptoms / effects, acute and delayed

- Inhalation:** If material is sprayed or if vapors are generated from heating, exposure may cause irritation of mucous membranes and upper respiratory tract.
- Skin contact:** Skin irritation may include redness, edema, drying, and cracking of the skin. Repeated or prolonged skin contact may lead to dermatitis.
- Eye contact:** Eye contact may cause burning, tearing, redness or blurred vision.
- Ingestion:** Swallowing may cause gastrointestinal discomfort, nausea, vomiting, diarrhea and general depressed activity.

Indication of immediate medical attention and special treatment, if necessary

If exposed or concerned: Get medical attention.

Notes to physicians: Treat symptomatically.

See Section 11 for toxicological information.

5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable media: Halon. Carbon dioxide (CO₂). Dry chemicals. Foam. Water spray or fog.

Unsuitable media: Do not use water as a direct jet or high-pressure stream.

Specific hazards arising from the chemical

No unusual fire or explosion hazards.

Hazardous combustion products: Smoke, irritating vapors, hydrogen chloride, oxides of carbon and nitrogen, and other toxic fumes. See section 10 for additional information.

Special protective equipment and precautions for fire-fighters

Protective equipment for fire-fighters: As in any fire, wear self-contained breathing apparatus, pressure-demand, MSHA/NIOSH-approved (or equivalent) and full protective gear.

Precautions for fire-fighters: Take no action involving personal risk or without suitable training. Do not direct a solid stream of water on spilled material as this may scatter or spread fire. Water or foam may cause frothing. Do not release chemically contaminated water into drains, soil or surface water. Cool containers exposed to flames with water until well after the fire is out.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal precautions: Take no action involving personal risk or without suitable training. Evacuate personnel to safe area. Keep unnecessary and unprotected personnel away. Eliminate all ignition sources if without risk (no smoking, flares, sparks or flames). Avoid contact with skin, eyes and clothing. Do not touch or walk through spilled material. Floors may be slippery. Wear protective clothing / equipment recommended in Section 8. Prevent entry into basements or confined areas. Ensure adequate ventilation, especially in confined spaces.

Environmental precautions: Prevent from entering soil, ditches, sewers, waterways and groundwater. Do not flush into surface water, sanitary sewer or ground water systems. See Section 12 ecological information.

Methods and materials for containment and clean-up

Small spill: Stop leak if without risk. Wipe up or absorb spill with inert material (i.e. dry sand or earth). Sweep, scoop up or vacuum the discharged material. Seal spent absorbent material in a suitable labeled container for disposal.

Large spill: Stop material flow if without risk. Approach release from upwind. Dike area to prevent spreading. Pump discharged material to salvage tank. Remainder may be taken up on dry sand, clay, earth, or other absorbent material and shoveled into containers. Do not use combustible materials, such as saw dust. Seal and label containers for disposal.

See Section 13 for disposal considerations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practices. Avoid contact with eyes, skin and clothing. Avoid breathing mist, vapors or spray. Avoid repeated or prolonged skin contact. Wear appropriate personal protective equipment (see Section 8). Keep away from ignition sources. Do not eat, drink or smoke when using this product. Wash face, hands and other exposed skin thoroughly with soap and water after handling. Launder contaminated clothing before reuse. Avoid water contamination, incompatible conditions (see Section 10) and extreme temperatures to prevent product degradation. Empty drums contain product residue which may exhibit hazards of the product. Do NOT cut, weld, braze, solder, drill or grind on or near empty containers.

Conditions for safe storage, including incompatibilities

Storage conditions: Keep container tightly closed until ready for use. Store in a well ventilated place, protected from sunlight. Store away from heat, sparks and flame. Keep away from food and drink. Do not store in unlabeled or mislabeled containers. Do not reuse containers without proper cleaning or reconditioning. Product residue in empty containers exhibits hazards of the product. Store away from incompatible materials. Maximum storage temperature for product preservation: 40°C (104°F).

Incompatible materials: Strong oxidizing agents. Reducing agents. Acids. See Section 10 for more information.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines

Chemical name	OSHA PEL	ACGIH TLV	NIOSH REL
Mineral oils as Oil Mist, if generated	TWA: 5 mg/m ³ (mist)	TWA: 5 mg/m ³ (inhalable fraction)	TWA: 5 mg/m ³ (mist) STEL: 10 mg/m ³ (mist)
Asphaltic resin 8052-42-4	Not established.	TWA: 0.5 mg/m ³ (fume, inhalable fraction, as benzene solution in aerosol)	Ceiling: 5 mg/m ³ (fume, 15 min)

Components with biological occupational exposure limits:

Chemical name	Parameter	Medium	Sampling time	Permissible Concentration	Basis
Asphaltic resin 8052-42-4	1-Hydroxypyrene with hydrolysis	Urine	End of shift at end of work week	Non-quantitative	ACGIH BEI

Appropriate engineering controls: General ventilation is normally adequate. If use generates spray, mist or vapor, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Eyewash stations. Safety showers.

Individual protection measures, such as personal protective equipment

Eye / face protection:	Safety glasses with side shields. Chemical goggles recommended during product transfer. If potential for spray, splash or mist exists, wear tight-fitting chemical goggles or face shield.
Skin / body protection:	Nitrile gloves or neoprene. Long sleeve shirt recommended. Wear coveralls, apron and / or boots as necessary if there is a risk of exposure to spray or splashes. Do not wear rings, watches or similar apparel that could entrap the material and cause a skin reaction.
Respiratory protection:	Not usually necessary under conditions of normal use. If product is heated or sprayed, use respirator with a combination organic vapor and dust/mist cartridge if recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material.
Work area and hygiene measures:	Observe good industrial hygiene practices. Avoid skin and eye contact. Do not eat, drink or smoke when using product. Wash contaminated clothing before reuse. Discard leather articles saturated with product. Wash face, hands and any other exposed skin after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Typical Property</u>	<u>Value</u>	<u>Remarks • Method</u>
Appearance, physical state:	Black, semi-solid.	
Odor:	Petroleum.	
Odor threshold:	Not determined.	
pH:	Not determined.	
Melting / freezing point:	182°C (360°F)	
Initial boiling point / range:	149°C (300°F)	
Flash point:	225°C (437°F)	ASTM D-92
Evaporation rate:	Not determined.	
Flammability (solid, gas):		
Upper / lower flammability or explosive limits:	Upper: Not determined. Lower: Not determined.	
Vapor pressure:	Not determined.	
Vapor density:	Not determined.	
Specific gravity:	Not determined.	
Density:	0.9318 g/cm ³	@ 20°C
Solubility(ies):	Insoluble (water).	
Partition coefficient: n-octanol/ water	Not determined.	See Section 12 for available component data.
Auto-ignition temperature:	Product is not self-igniting.	Ignition temperature: > 315°C (> 599°F)
Decomposition temperature:	Not determined.	
Viscosity, kinematic:	Not determined.	

The above properties are typical values and do NOT constitute a product specification.

10. STABILITY AND REACTIVITY

Reactivity:	Not reactive under normal conditions of use, storage and transport.
Chemical stability:	Stable under normal conditions of use and storage.
Possibility of hazardous reactions:	None under normal conditions of use and storage.
Conditions to avoid:	Direct sunlight, high temperatures, excessive heat, and sources of ignition. Strong oxidizing conditions. Strong caustic agents.
Incompatible materials:	Strong oxidizing agents. Reducing agents. Acids.
Hazardous decomposition products:	Thermal decomposition or combustion may generate smoke, irritating vapors, carbon monoxide, carbon dioxide, oxides of nitrogen, aldehydes, toxic fumes, unidentified organic compounds, and other products of incomplete combustion. Under combustion conditions, oxides of phosphorus, sulfur and zinc may form.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation:	At elevated temperatures, or mechanical actions that create aerosols, vapors, mists or fumes, may be irritating to mucous membranes and respiratory tract.
Ingestion:	Swallowing can result in nausea, vomiting and irritation of gastrointestinal tract.
Skin contact:	Causes skin irritation.
Eye contact:	Causes eye irritation.

Acute toxicity and potential immediate effects

Oral:	Product: ATEmix LD50 > 30,000 mg/kg, rat.
Distillates (petroleum):	LD50 > 5000 mg/kg, rat.
Asphaltic resin:	LD50 > 5,000 mg/kg, rat.
Petroleum hydrocarbons:	LD50 > 11,700 mg/kg, rat.
Dermal:	Product: ATEmix LD50 > 4000 mg/kg, rabbit.
Distillates (petroleum):	LD50 > 5000 mg/kg, rabbit.
Asphaltic resin:	LD50 > 2,000 mg/kg, rabbit.
Petroleum hydrocarbons:	LD50 > 13,900 mg/kg, rabbit.
Inhalation:	Product: ATEmix LC50, 4 h: > 1700 mg/l, rat.
Skin corrosion / irritation:	Product: Causes skin irritation.
Serious eye damage / irritation:	Product: Causes eye irritation.
Sensitization, respiratory:	No data available.
Sensitization, skin:	Product: Does not meet classification criteria. Not expected to be a skin sensitizer.
Distillates (petroleum):	Not a skin sensitizer.
Petroleum hydrocarbons:	Not a skin sensitizer.

Potential chronic effects

Carcinogenicity:	No data on product.
Distillates (petroleum):	Meets EU requirement of less than 3% (w/w) DMSO extract for total polycyclic aromatic compound (PAC) using IP 346.
Asphaltic resin:	Human epidemiological studies have reported an increased risk in lung cancer among workers exposed to asphalt fumes. Asphalt fumes caused skin tumors in experimental animals.
Petroleum hydrocarbons:	Studies in animals have shown that repeated doses do not produce carcinogenic effects: NOAEL (mouse). 2 Year(s): > 5000 mg/kg bw/day. NOAEL (rat) 2 Year(s): > 3750 mg/kg bw/day.
NTP:	No components identified.
IARC Monographs:	Asphaltic resin as Bitumens, 2B (possibly carcinogenic to humans).
OSHA:	Asphaltic resin as Bitumens.
Germ cell mutagenicity:	No data on product.
Petroleum hydrocarbons:	Not mutagenic to bacteria or in in-vivo mouse bone marrow micronucleus assays.
Reproductive toxicity:	No data on product.
Petroleum hydrocarbons:	Studies in animals have shown that doses produce no teratogenic effects. No effects in conventional development toxicity studies with doses up to 5000 mg/kg/day (rat) and 2000 mg/kg/day (rabbit). NOAEL (rat): 5000 mg/kg bw/day. NOAEL (rabbit): 2000 mg/kg bw/day.

Specific target organ toxicity (STOT)

Single exposure (SE):	Product: At elevated temperatures, or mechanical actions that create aerosols, vapors, mists or fumes, material may irritate mucous membranes and respiratory tract.
Repeated exposure (RE):	Product: Prolonged or repeated skin contact as from clothing wet with material may cause irritation and dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.
Distillates (petroleum):	Prolonged or repeated contact may cause drying, cracking or irritation of the skin.
Petroleum hydrocarbons:	Repeated exposure to high levels may produce adverse effects on the liver and kidneys. NOEL (rat) (13 weeks): > 3,750 mg/kg bw/day. Slight effects on the liver were seen at higher doses.

Aspiration hazard

Product: Does not meet classification criteria.

See Section 4 for information on symptoms and effects.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Product: No data available.

Freshwater fish:

Distillates (petroleum): 96 hr LC50 Oncorhynchus mykiss (rainbow trout): > 5000 mg/L
 Petroleum hydrocarbons: 96 hr LC50 Oncorhynchus mykiss (rainbow trout): > 770 mg/L
 60 d LC50 Oncorhynchus mykiss (rainbow trout): > 4 mg/L
 96 hr LC50 L. macrochirus (bluegill sunfish): > 300 mg/L
 96 hr LC50 Alburnus alburnus (bleak): > 5000 mg/L

Aquatic invertebrates:

Distillates (petroleum): 48 hr EC50 Water flea (Daphnia magna): > 1000 mg/l
 21 d EC50 Water flea (Daphnia magna): > 10 mg/l
 21 d NOEC Water flea (Daphnia magna): 10 mg/l
 Petroleum hydrocarbons: 48 hr LC50 Daphnia magna (water flea): > 5.1 mg/l
 21 d NOEC: 55 µg/l

Aquatic plants:

Distillates (petroleum): 96 hr Ir L50 Scenedesmus Subspicatus (algae): > 1000 mg/l
 Petroleum hydrocarbons: 96 hr EC50 Scenedesmus quadricauda (green algae): > 100 mg/l

Microorganisms:

No data available.

Persistence and degradability

Distillates (petroleum): Not inherently biodegradable.
 Petroleum hydrocarbons: Expected to be partially biodegradable. There is evidence of partial hydrolysis in water. There is evidence of slow degradation in soil and water.

Bioaccumulative potential

Distillates (petroleum): Bioaccumulation unlikely to be significant due to low water solubility of material.
 Asphaltic resin: Bioaccumulation not expected.
 Petroleum hydrocarbons: Log K_{ow}: 0.3

Bioconcentration Factor, Partition Coefficient n-octanol/water:**Mobility**

Not determined.

Other adverse effects

None known.

13. DISPOSAL CONSIDERATIONS**Method of disposal:**

Disposal should be in accordance with applicable regional, national and local laws and regulations and material characteristics at the time of disposal.

Contaminated packaging:

Disposal should be in accordance with applicable regional, national and local laws and regulations. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

NOTE: Transport information may vary depending on mode, size of packagings and destination and is the responsibility of the shipper to follow applicable laws and regulations. Please see current shipping papers for most up to date shipping information.

U.S. DOT

UN number: Not regulated.
Proper shipping name: Lubricating grease.
Transport hazard class(es): Not applicable.
Packing group: Not applicable. **Label code(s):** Not applicable.
Quantity limitations: **Passenger aircraft / rail:** Not applicable.
Cargo aircraft only: Not applicable.
Limited Quantity: Not applicable.

Environmental hazards:

None.

Marine Pollutant:

No.

IMDG

Not regulated.

IATA

Not regulated.

Transport in bulk (Annex II of MARPOL73/78 and IBC Code) Not determined.

15. REGULATORY INFORMATION

Global Inventories

Ingredient	U.S.TSCA	AICS	DSL	EINECS	ENCS	IECSC	KECL	NZioC	PICCS	SWISS	TCSI
Distillates (petroleum)	X	X	X	X		X	X	X	X		
Asphaltic resin	X	X	X	X		X	X	X	X		
Petroleum hydrocarbons	X	X	X	X	X	X	X	X	X		X

U.S. Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): None present or none present in regulated quantities.

CERCLA Hazardous Substance List, RQ (40 CFR 302.4): None found.

SARA 302 Extremely Hazardous Substance: None found.

SARA 311/312 Hazard Categories:

Immediate (acute) health hazards:	Yes
Delayed (chronic) health hazards:	No
Fire hazard:	No
Sudden release of pressure hazard:	No
Reactive hazard:	No

SARA 313 (TRI reporting): None found.

U.S. State Regulations

California Proposition 65: None found.

Massachusetts Right-to-Know List: Asphalt, 8052-42-4.

New Jersey Right-to-Know Hazardous Substance List: Asphalt, 8052-42-4.

Pennsylvania RTK List: Asphalt, 8052-42-4.

16. OTHER INFORMATION

HMIS:	Health	Flammability	Physical Hazards	Personal Protection
	2 *	1	0	Not determined. ‡

* Chronic health hazard.

‡ PPE codes should be determined by the employer, who is familiar with the actual conditions under which the material is used. See Section 8 for more information.

NFPA:	Health	Flammability	Instability	Special Hazards
	2	1	0	-

Revision history

Revision date: September 1, 2015

Supersedes previous issue: November 14, 2014

Version: 1.0

Revision information: New format.

Legend

ACGIH American Conference of Governmental Industrial Hygienists
AICS Australian Inventory of Chemical Substances
BCF Bioconcentration Factor
BEI Biological Exposure Indices
CAS Chemical Abstracts Service
CERCLA Comprehensive Environmental Response, Compensation and Liability Act
DSL Canada Domestic Substances List
EC₅₀ Effective concentration to 50% of test organisms
EINECS European Inventory of Existing Commercial Chemical Substances
ENCS Inventory of Existing and New Chemical Substances (Japan)

HMIS Hazardous Material Information System
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IECSC Inventory of Existing Chemical Substances in China
IMDG International Maritime Dangerous Goods Code
KECL/ECL Korean Existing and Evaluated Chemical Substances
LC₅₀ Lethal concentration to 50% of test organisms
LD₅₀ Lethal dose to 50% of test organisms
LOAEL Lowest Observed Adverse Effect Level
NZioC New Zealand Inventory of Chemicals
NFPA National Fire Protection Association

NIOSH	National Institute for Occupational Safety & Health	STEL	Short-Term Exposure Limit
NOAEL	No Observed Adverse Effect Level	SWISS	Switzerland Inventory of Notified New Substances
NTP	National Toxicology Program	TLV	Threshold Limit Value
OSHA	Occupational Health and Safety Administration	TPQ	Threshold Planning Quantity
PEL	Permissible Exposure Limit	TSCA	U.S. Toxic Substances Control Act
PICCS	Philippines Inventory of Chemicals and Chemical Substances	TSCI	Taiwan Chemical Substance Inventory
RQ	Reportable Quantity	TWA	Time-Weighted Average
SARA	U.S. EPA Superfund Amendments and Reauthorization Act	VOC	Volatile Organic Compound

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material(s) or in any process, unless specified in the text.

- END SAFETY DATA SHEET -