MATERIAL SAFETY DATA SHEET

1. Chemical Product

Product Name *SPEC OIL EP 0*

Product Use *Industrial Grease*

2. Composition / Information On Ingredients

Chemical Name	Cas- no.	Weight %	Symbol Codes	R-Phrase Numbers
Lithium 12-hydroxystearate	7260-77-7	<5.00		
Zinc Naphthenate	12001-85-3	<5.00	Xi	R36/38, R52/53
n-Phenyl benzenamine	68411-46-1	<1.00	N	R51/53

See Section 15 for European Label Information
See Section 8 for Exposure Limits (if applicable)

3. Hazards Identification

Emergency response data:	Brown . Material is combustible. DOT ERG No.- Not applicable
Potential health effects	
Note	Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin and respiratory irritation.
Skin	Repeated or excessive exposure may cause skin dryness or cracking.
Potential environmental effects	This product is not readily biodegradable.

See Section 11 for further health effects / toxicological data

4. First Aid Measures

Inhalation	Under certain conditions smoke may be generated. Remove victim from further exposure.
Skin contact	Wash contact areas with soap and water.
Eye Contact	Flush thoroughly with water. If irritation occurs call a doctor.
Ingestion	Not expected to be a problem. However, if discomfort occurs seek medical attention. Do not induce vomiting.

5. Fire-Fighting Measures

Extinguishing media	Carbon dioxide, foam, dry chemicals and water fog.
Special fire fighting procedure	Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, municipal sewers, or drinking water supply.
Special protective equipment for fire fighters	For fires in closed areas, fire fighters must use Self-Contained Breathing Apparatus.
Products of decomposition	Fumes, smoke, carbon monoxide, sulphur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.
NFPA Hazard ID	Health: 0; Flammability: 1; Reactivity: 0

6. Accidental Release Measures

Procedure if material is released or spilled	Report spills / release as required to appropriate authorities.
Methods for cleaning up	LAND SPILL: Shut off source taking normal safety precautions. Take measures to minimize the effects on the ground water. Recover by pumping using explosion-proof equipment or contain spilled liquid with sand or other suitable absorbent and remove mechanically into containers. If necessary, dispose of absorbed residues as directed in Section 13. WATER SPILL: Notify port and relevant authorities. Confine with booms in skimming equipment is available to recover the spill for a later recycling or disposal.
Environmental precautions	Prevent spill from entering municipal sewers, water sources or low lying areas. Advise the relevant authorities if contaminations have occurred.

Personal precautions	See section 8

7. Handling And Storage

Safe handling advice	High pressure injection under the skin may occur due to the rupture of pressurised lines. (See Section 16 – Injection Injury)
Storage information	Keep containers closed when not in use. Do not store in open or unlabelled containers. Do not store near sources, sparks, flames, strong oxidizing agents and combustible materials.
Storage and handling procedures	Prevent small spills and leakages to avoid slip hazard.

8. Exposure Controls / Personal Protection

Occupational Exposure Limits (OELs)

Components	Cas- no.	Source	TWA	Value		Notations

LTEL	Long Term Exposures Limits- Time Weight Average (TWA) over 8 hours.
STEL	Short Term Exposure Limits- Time Weight Average (TWA) over 15 minutes.
Note	Limits Shown for guidance only. Follow applicable regulations.

Personal Protection Equipment (PPE)

Engineering controls	Use in well-ventilated area.
Respiratory protection	No special requirements under ordinary conditions of use and with adequate ventilation.
Eye protection	If eye contact is likely, normal industrial eye protection practices should be employed.
Skin and body protection	If prolonged or repeated skin contact is likely, wear oil impervious gloves and clothing. Good personal hygiene practices should always be followed.

9. Physical And Chemical Properties

Appearance	Semi Solid
Colour	Brown
Base component	Lithium Grease
Odour	Characteristic
Solubility	Immiscible

10. Stability And Reactivity

Stability	Stable
Condition to avoid	Extreme heat and high energy sources of ignition, such as sparks and static electricity.
Materials to avoid	Strong oxidizers
Hazardous decomposition products	Fumes, smoke, carbon monoxide, sulphur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

11. Toxicological Information

Acute oral toxicity	(Rats): Practically non-toxic (LD50: Greater than 2000 mg/kg). Based on testing of similar products and / or components.
Acute inhalation toxicity	(Rats): Practically non-toxic (LC50: Greater than 5 mg/l). Based on testing of similar products and / or components.
Acute dermal toxicity	(Rabbits): Practically non-toxic (LC50: greater than 2000mg/l). Based on testing of similar products and / or components.
Skin irritation	(Rabbits): Practically non-irritating. (Primary Irritation Index LC50: greater than 0.5 but less than 3). Based on testing of similar products and / or the components.
Eye irritation	(Rabbits): Practically non-irritating. (Draize score: greater than 6 but 15 or less). Based on testing of similar products and / or the components.
Sensitization	Not expected to be sensitizing based on tests of this product, components, or similar products.
Repeated dose toxicity	No significant adverse effects were found in studies using repeated dermal applications of similar formulations to the skin of laboratory animals for 13 weeks at doses significantly higher than those expected during normal industrial exposure. The animals were evaluated extensively for effects of exposure (haematology, serum chemistry, urinalysis, organ weights, microscopic examination of tissues etc.).
Carcinogenicity	Repeated and / or prolonged exposure may cause irritation to the skin, eyes or respiratory tract. Mineral base oils are severely solvent refined and severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects.
Other toxicological information	No significant effects expected.

12. Ecological Information

Elimination information (persistence and durability)

Biodegradability	This product is not inherently biodegradable..
Physic-chemical removability	Not established.
Bioaccumulation	Not established.
Eco toxicity effects	
Further information on ecology	
Remarks	The major components in the formulation show no aquatic toxicity at 1000 mg/L loading; therefore long-term adverse effects in the aquatic environment are not expected.

13. Disposal Considerations

Waste disposal	Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conversation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.
Contaminated packaging	Empty containers retain residue (liquid and / or vapour) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.
Other regulations	The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

14. Regulatory Information

US OSHA Hazard Communication Standard	When used for its intended purposes, this product is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.
Governmental Inventory	All components comply with TSCA, EINECS, AICS, METI, DSL, KECI, ENCS, PICCS and IECSC.
EU labelling	Product is not dangerous as defined by the European Union Dangerous Substances / Preparations Directives. EU labelling not required.
SARA	
U.S Superfund Amendments and Reauthorization Act SARA Title III	This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".
SARA (311/312) Reportable Hazard Categories	None

The following product ingredient are cited on the list below

Chemical name	Cas- no.	Concentration (%)	List Citations
Lithium 12-hydroxystearate	7260-77-7	<5.00	22
Zinc Naphthenate	12001-85-3	<5.00	
n-Phenyl benzenamine	68411-46-1	<1.00	

Regulatory List Searched

1=ACGIH ALL	6=IARC 1	11=TSCA 4	17=CA P65	22=MI 293
2=ACGIH A1	7=IARC 2A	12=TSCA 5a2	18=CA RTK	23=MN RTK
3=ACGIH A2	8=IARC 2B	13=TSCA 5e	19= FL RTK	24=NJ RTK
4=NTP CARC	9=OSHA CARC	14=TSCA 6	20=IL RTK	25=PA RTK
5=NTP SUS	10=OSHA Z	15=TSCA 12b	21=LA RTK	26=RI RTK

Code Key: CARS = Carcinogen; SUS = Suspected Carcinogen

15. Other Information

Note: Spec Oil products do not contain PCBs.

Health studies have shown that many hydrocarbons pose potential human health risks which may vary from person to person. Information provided on this MSDS reflects intended use. This product should not be used for any other applications. In any case, the following advice should be considered:

FIRST AID	Wash skin with soap and water. Flush eyes with water. If overcome by fumes or vapour, remove to fresh air. If ingested do not induce vomiting. If any symptoms persist seek medical attention. Read and understand the MSDS before using this product.
INJECTION INJURY WARNING	If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.
SAFETY	Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin or irritation. Always observe good hygiene measures.

Disclaimer

Information given her in is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user and we expressly disclaim all warranties of every kind of nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Nothing intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.