MATERIAL SAFETY DATA SHEET
LUBRIMATIC WHITE LITHIUM GREASE (11350 - 11354 - 11355 - 11356 - 11357 - 11358 - 11359 - 11360 - 11395 - 11484 - 11487)

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME	LUBRIMATIC WHITE LITHIUM GREASE (11350 - 11354 - 11355 - 11356 - 11357 - 11358 - 11359 - 11360 - 11395 - 11484 - 11487)
PART No.	327600
PRODUCT USE	Lubricating Grease
SUPPLIER	Chemtool Incorporated P.O. Box 538 8200 Ridgefield Road Crystal Lake, IL 60039-0538 USA Tel: (815) 459-1250 Fax: (815) 459-1955
EMERGENCY TELEPHONE	Infotrac U.S. and Canada - (800) 535-5053 Outside the U.S. and Canada - +01-352-323-3500
Date of last issue	2007-01-09

2. COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	WEIGHT
DISTILLATES, PETROLEUM, HYDROTREATED HEAVY NAPHTHENIC	64742-52-5	87-93 %
*OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT	7620-77-1	5-10 %
ZINC OXIDE (ZnO)	1314-13-2	1-2 %
*TITANIUM DIOXIDE (TiO2)	13463-67-7	1-2 %

* 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, SARA, state or federal agencies are treated confidentially.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Exposure to vapors generated at high temperatures may cause respiratory irritation. For further information, please refer to section 11. Not regarded as a health hazard under current legislation.

SENSITIZATION	No known information.
CARCINOGENICITY	OSHA: Not regulated. NTP: Not listed. See Section 11 for carcinogenicity data of ingredients.
TERATOGENICITY	No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.
HEALTH WARNINGS	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. SKIN CONTACT. Repeated or prolonged contact can result in drying of the skin. EYE CONTACT. Irritating. INGESTION. Can cause stomach ache and vomiting. Main hazard, if ingested, is aspiration into the lungs and subsequent pneumonitis.
ROUTE OF ENTRY	Inhalation. Skin and/or eye contact. Ingestion.
MEDICAL SYMPTOMS	MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not determined

4. FIRST AID MEASURES

INHALATION	Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor of hot product, immediately remove from source of exposure. Move the exposed person to fresh air at once. For breathing difficulties oxygen may be necessary. Get medical attention if any discomfort continues.
EYES	Rinse the eye with water immediately. Continue to rinse for at least 15 minutes. Contact physician if 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)	224 (435°F) Cd OC (Cleveland open cup), based on lowest flash point of base oils.
FLAMMABILITY LIMIT - LOWER(%)	N/D
FLAMMABILITY LIMIT - UPPER(%)	N/D
EXTINGUISHING MEDIA	Use: Carbon dioxide (CO2). Dry chemicals, sand, dolomite etc. Alcohol resistant foam. Water spray, fog or mist.
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.

UNUSUAL FIRE & EXPLOSION HAZARDS Pressure will increase in over heated, closed containers.

HAZARDOUS COMBUSTION PRODUCTS 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.

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 Keep all sources of ignition and hot metal surfaces away from spill. Avoid contact with eyes or skin. Place leaking containers in well ventilated area. If fire potential exists, blanket spill with foam or use water spray to disperse vapors. Contain spill to minimize contaminated area and facilitate salvage or disposal. To clean up spill, flush area sparingly with water or use absorbant material. Avoid discharge to natural water ways.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Do not reuse container. Keep lid closed when not in use. Do not store or mix with strong oxidizers. Avoid spilling, skin and eye contact. Eye wash and emergency shower must be available at the work place.

STORAGE PRECAUTIONS Store separate from strong acids and oxidizers. Keep away from heat, sparks and open flame.

STORAGE CRITERIA Chemical storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENT	STD	TWA	STEL	TWA	STEL
DISTILLATES, PETROLEUM, HYDROTREATED HEAVY NAPHTHENIC	OSHA			5 mg/m3 (oil mist)	
	ACGIH			5 mg/m3 (oil mist)	10 mg/m3 (oil mist)
ZINC OXIDE (ZnO)	OSHA	15 mg/m3 (total)		5 mg/m3 (resp)	
	ACGIH			2 mg/m3 (resp)	10 mg/m3 (resp)
TITANIUM DIOXIDE (TiO2)	OSHA			15 mg/m3 (total)	
	ACGIH			10 mg/m3	**A4
	NIOSH	LFC **Ca			

INGREDIENT COMMENTS

**ACGIH A4: Not Classifiable as a Human Carcinogen.
**NIOSH Ca: Potential Occupational Carcinogen.
**NIOSH LFC: Lowest Feasible Concentration.

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.

PROTECTIVE GLOVES Chemical resistant gloves recommended to prevent 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	Grease.		
COLOR	White.		
ODOR	Mild (or faint). Petroleum.		
SOLUBILITY DESCRIPTION	Insoluble in water.		
SOLUBILITY VALUE (g/100g H2O 20°C)	<0.1		
DENSITY	0.90	**Temperature (°C)**	15.6 (60°F)
VAPOR DENSITY (air=1)	> 5		
VAPOR PRESSURE	< 0.1 mmHg	**Temperature (°C)**	20 (68°F)
EVAPORATION RATE	< 0.01	**Reference**	BuAc=1

10. STABILITY AND REACTIVITY

STABILITY Normally stable.

CONDITIONS TO AVOID Avoid contact with acids and oxidizing substances.

HAZARDOUS POLYMERIZATION	Will not occur.
POLYMERIZATION DESCRIPTION	Not applicable
HAZARDOUS DECOMPOSITION PRODUCTS	Oxides of: Carbon.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION	No experimental toxicological data on the preparation as such is available.
COMPONENT	**DISTILLATES, PETROLEUM, HYDROTREATED HEAVY NAPHTHENIC**
TOXICOLOGICAL DATA	Carcinogenicity. IP 346 <3%
TOXIC DOSE - LD 50	> 5000 mg/kg (oral rat)
TOXIC DOSE - LD 50 SKIN	> 2000 mg/kg (skn rbt)
TOXIC CONC. - LC 50	No Information Available (NIA).
CARCINOGENICITY	The petroleum base oil contained in this product has been highly refined to remove aromatics and improve performance characteristics. The base oil is not listed as a carcinogen by NTP, IARC, or OSHA.
COMPONENT	**ZINC OXIDE (ZnO)**
TOXIC DOSE - LD 50	240 mg/kg (ipr-rat)
TOXIC DOSE - LD 50	7950 mg/kg (oral-mus)
TOXIC CONC. - LC 50	2500 mg/m3 (inh-mam.)
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	**TITANIUM DIOXIDE (TiO2)**
TOXICOLOGICAL DATA	Carcinogenicity. WHMIS (Canada) D2A - R49 www.reptox.csst.qc.ca 8/3/2006
TOXIC DOSE - LD 50	> 10000 mg/kg (oral rat)
TOXIC DOSE - LD 50 SKIN	> 10000 mg/kg (skn rbt)
TOXIC CONC. - LC 50	> 6.8 mg/l/4h (inh-rat)
CARCINOGENICITY	OSHA: Not regulated. NTP: Not listed. IARC-2B: The agent is possibly carcinogenic to humans (limited evidence of carcinogenicity in humans).

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION	There is no ecological data on the product itself.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS	Spilled material, unused contents and empty containers must be disposed of in accordance with local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT HAZARD CLASS Not regulated.

U.S. DOT HAZARD LABEL No DOT label requirement

SEA TRANSPORT NOTES Not regulated per IMDG.

AIR TRANSPORT NOTES Not regulated per IATA.

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

COMPONENT	SARA 302	CERCLA	SARA 313
DISTILLATES, PETROLEUM, HYDROTREATED HEAVY NAPHTHENIC	No	No	No
OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT	No	No	No
ZINC OXIDE (ZnO)	No	***	N982 - Zn
TITANIUM DIOXIDE (TiO2)	No	No	No

REGULATORY STATUS

*** Indicates that no RQ is assigned to this generic or broad class, although the class is a CERCLA hazardous substance. See 50 Federal Register 13456 (April 4, 1985). Values in Section 313 column represent Category Codes for reporting under Section 313.

CLEAN AIR ACT

SARA HAZARD CATEGORIES None

US STATE REGULATIONS

COMPONENT	CA	MA	FL	MN	NJ	PA	RI
DISTILLATES, PETROLEUM, HYDROTREATED HEAVY NAPHTHENIC					Yes	Yes	
ZINC OXIDE (ZnO)					Yes	EH	

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:
Cadmium, <1ppm
Lead, <1ppm
PENNSYLVANIA RIGHT-TO-KNOW: This product contains the following chemicals that the state of Pennsylvania has identified as Special Hazardous Substances (SHS), Environmental Hazards (EH), or both (ESHS). The PA regulations require that the MSDS identify all SHS or EH chemicals by chemical name, common name, and CAS Number if they comprise 0.01% or more.
Zinc compounds regulated under CERCLA and SARA 313, Environmental Hazard

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.

CONTROLLED PRODUCT CLASSIFICATION Not a controlled product.

GLOBAL INVENTORIES

COMPONENT	CAN	US	EU	AUS	JAP	KOR	PHLP	CHN
DISTILLATES, PETROLEUM, HYDROTREATED HEAVY NAPHTHENIC	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT	DSL	Yes	EINECS	Yes	2-1416	Yes	Yes	Yes
ZINC OXIDE (ZnO)	NPRI	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
TITANIUM DIOXIDE (TiO2)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes

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 Burns only if pre-heated (1) - HMIS/NFPA

REACTIVITY Normally Stable (0) - HMIS/NFPA

PERSONAL PROTECTION INDEX B - Safety Eyewear and Gloves

REVISION COMMENTS Section 11: Toxicological Information

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Replacement of MSDS generated 2005-12-30

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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**

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