



# MATERIAL SAFETY DATA SHEET

## LUBRIMATIC LMX HEAVY DUTY GREASE ( 11389, 11390, 11391, 11392, 11393)

### 1. PRODUCT AND COMPANY IDENTIFICATION

<b>TRADE NAME</b>	LUBRIMATIC LMX HEAVY DUTY GREASE ( 11389, 11390, 11391, 11392, 11393)
<b>PRODUCT DESCRIPTION</b>	RED LC MV R&O EP 2
<b>Product number</b>	LXR25020A0 - MC2495R
<b>PRODUCT USE</b>	Lubricating Grease
<b>DISTRIBUTOR</b>	Plews/Edelmann 1550 Franklin Grove Road Dixon, IL 61021 Tel: +01(815) 288 - 3344
<b>CHEMICAL MANUFACTURER</b>	Chemtool Incorporated, P.O.Box 538, 8200 Ridgefield Rd., Crystal Lake, IL 60039-0538, USA.
<b>EMERGENCY TELEPHONE</b>	CHEMTREC (800) 424-9300 - Outside the US (703) 527-3887
<b>Date of last issue</b>	2010-01-21

### 2. COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	WEIGHT
LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED (IP346 DMSO Extracts <3%)	Mixture**(2)	87-93 %
*OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT	7620-77-1	5-10 %
*PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS (TYPE B)	68649-42-3B	1-5 %

\* This chemical(s) is hazardous according to OSHA/WHIMIS criteria

#### COMPOSITION COMMENTS

Refer to section eight (8) for exposure limits on ingredients.

Chemical ingredients not regulated by OSHA, SARA, state or federal agencies are treated confidentially.

\*\* (2) The base oil for this product can be a mixture of any of the following highly refined petroleum streams:

CAS 64741-88-4; CAS 64741-89-5; CAS 64741-95-3; CAS 64741-96-4; CAS 64741-97-5; CAS 64742-01-4; CAS 64742-52-5; CAS 64742-53-6; CAS 64742-54-7; CAS 64742-55-8; CAS 64742-56-9; CAS 64742-57-0; CAS 64742-62-7; CAS 64742-63-8; CAS 64742-65-0; CAS 72623-83-7; CAS 72623-85-9; CAS 72623-86-0; CAS 72623-87-1. Carcinogenicity: The petroleum base oils contained in this product have been highly refined by a variety of processes including solvent extraction, solvent

dewaxing and hydrotreating to remove aromatics and improve performance characteristics. All petroleum base oils contained in this product meet the IP 346 criteria of less than 3 percent DMSO extractable PAH's and are not considered carcinogens by IARC, NTP or OSHA.

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### 3. HAZARDS IDENTIFICATION

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#### EMERGENCY OVERVIEW

<b>INHALATION</b>	Inhalation hazard at room temperature is unlikely due to the low volatility of this product. Heating can generate vapors that may cause respiratory irritation, nausea and headaches.
<b>INGESTION</b>	May cause stomach pain or vomiting.
<b>SKIN</b>	Prolonged or repeated contact leads to drying of skin.
<b>EYES</b>	May be slightly irritating to eyes.
<b>SENSITIZATION</b>	No known information.
<b>CARCINOGENICITY</b>	IARC: Not listed as a Group 1, 2A, or 2B agent. OSHA: Not regulated. NTP: Not listed.
<b>TERATOGENICITY</b>	No known information.
<b>MUTAGENICITY</b>	No known information.
<b>HEALTH WARNINGS</b>	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. Slightly irritating. INGESTION. Can cause stomach ache and vomiting.
<b>ROUTE OF ENTRY</b>	Inhalation. Skin and/or eye contact. Ingestion.
<b>TARGET ORGANS</b>	Eyes. Skin. Respiratory system, lungs.

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### 4. FIRST AID MEASURES

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<b>INHALATION</b>	Move the exposed person to fresh air at once. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.
<b>EYES</b>	Promptly wash eyes with lots of water while lifting the eye lids. Get medical attention if any discomfort continues.
<b>SKIN</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
<b>INGESTION</b>	DO NOT INDUCE VOMITING! Drink large amounts of water. Do not give milk or oil. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention immediately!

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### 5. FIRE FIGHTING MEASURES

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<b>FLASH POINT (°C)</b>	232 (450°F) Cd OC (Cleveland open cup).
<b>FLAMMABILITY LIMIT - LOWER(%)</b>	N/D

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<b>FLAMMABILITY LIMIT - UPPER(%)</b>	N/D
<b>EXTINGUISHING MEDIA</b>	Water spray, fog or mist. Foam. Carbon dioxide (CO2). Dry chemicals, sand, dolomite etc.
<b>SPECIAL FIRE FIGHTING PROCEDURES</b>	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.
<b>UNUSUAL FIRE &amp; EXPLOSION HAZARDS</b>	Volume and pressure increases strongly when heated. Risk of container explosion in fire.
<b>HAZARDOUS COMBUSTION PRODUCTS</b>	Acrid smoke/fumes. Oxides of: Carbon. Phosphorus. Sulfur.
<b>PROTECTIVE MEASURES IN CASE OF FIRE</b>	Self-contained breathing equipment and chemical resistant clothing recommended.

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>PERSONAL PRECAUTIONS</b>	Minimize skin contact. Remove sources of ignition. Wear suitable eye protection. Avoid inhalation of fumes from the heated product. Wear appropriate protective equipment and clothing during clean-up.
<b>PRECAUTIONS TO PROTECT THE ENVIRONMENT</b>	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.
<b>SPILL CLEAN-UP PROCEDURES</b>	Provide good ventilation. Use appropriate protective clothing. Carefully collect spilled material in closed containers and leave for disposal according to local regulations. Do not let washing down water contaminate ponds or waterways. Rinse area with water.

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## 7. HANDLING AND STORAGE

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<b>HANDLING PRECAUTIONS</b>	Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Containers should be kept tightly closed. Avoid spilling, skin and eye contact. Eye wash and emergency shower must be available at the work place.
<b>HANDLING DESCRIPTION</b>	Prevent small spills and leakages to avoid slip hazard.
<b>STORAGE PRECAUTIONS</b>	Keep away from heat, sparks and open flame. Store separated from: Acids. Oxidizing materials.
<b>STORAGE CRITERIA</b>	Chemical storage.

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## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

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COMPONENT	STD	TWA	STEL	TWA	STEL
LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED (IP346 DMSO Extracts <3%)	OSHA			5 mg/m3 as oil mist	
	ACGIH			5 mg/m3 as oil mist	10 mg/m3 as oil mist

### PROTECTIVE EQUIPMENT

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<b>ENGINEERING CONTROLS</b>	Use engineering controls to reduce air contamination to permissible exposure level.
<b>VENTILATION</b>	No specific ventilation requirements noted, but forced ventilation may still be required if air contamination exceeds acceptable level.
<b>RESPIRATORS</b>	No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.
<b>PROTECTIVE GLOVES</b>	Chemical resistant gloves required for prolonged or repeated contact. Use protective gloves made of: Neoprene, Nitrile, Polyethylene or PVC.
<b>EYE PROTECTION</b>	Use eye protection.
<b>PROTECTIVE CLOTHING</b>	Wear appropriate clothing to prevent repeated or prolonged skin contact.
<b>HYGIENIC WORK PRACTICES</b>	Wash at the end of each work shift and before eating, smoking and using the toilet.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>APPEARANCE/PHYSICAL STATE</b>	Grease.		
<b>COLOR</b>	Red.		
<b>ODOR</b>	Mild (or faint). Petroleum.		
<b>SOLUBILITY DESCRIPTION</b>	Insoluble in water.		
<b>SPECIFIC GRAVITY</b>	0.90		
<b>VAPOR DENSITY (air=1)</b>	> 5		
<b>VAPOR PRESSURE</b>	< 0.1 mmHg	<b>Temperature (°C)</b>	20 (68°F)
<b>EVAPORATION RATE</b>	< 0.01	<b>Reference</b>	BuAc=1
<b>pH-VALUE, CONC. SOLUTION</b>	N/A		

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## 10. STABILITY AND REACTIVITY

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<b>STABILITY</b>	Normally stable.
<b>CONDITIONS TO AVOID</b>	Avoid contact with acids and oxidizing substances.
<b>HAZARDOUS POLYMERIZATION</b>	Will not polymerize.
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Oxides of: Carbon. Phosphorus. Sulfur.

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## 11. TOXICOLOGICAL INFORMATION

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**TOXICOLOGICAL INFORMATION** No experimental toxicological data on the preparation as such is available.

**COMPONENT** LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED (IP346 DMSO Extracts <3%)  
**TOXICOLOGICAL DATA** WHMIS (Canada) = Not a controlled product.  
Carcinogenicity. IP 346 = <3% DMSO Extracts.  
**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).  
**IRRITATION** Prolonged skin contact may cause irritation.  
**SENSITIZATION** Not known to be a sensitizer.

**COMPONENT** OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT  
**TOXICOLOGICAL DATA** Irritating effects. Skin.  
**TOXIC DOSE - LD 50** No Information Available (NIA).  
**TOXIC CONC. - LC 50** No Information Available (NIA).

**COMPONENT** PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS (TYPE B)  
**TOXIC DOSE - LD 50** 4739 mg/kg (oral rat)  
**TOXIC DOSE - LD 50 SKIN** > 2000 mg/kg (skn rbt)

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## 12. ECOLOGICAL INFORMATION

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**ECOLOGICAL INFORMATION** No data on possible environmental effects have been found.

**COMPONENT** OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT

**COMPONENT** PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS (TYPE B)

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## 13. DISPOSAL CONSIDERATIONS

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

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## 14. TRANSPORT INFORMATION

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**DOT HAZARD CLASS** Not regulated.  
**IDENTIFICATION No.** N/A  
**TDGR CLASS** Not Regulated.

**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
LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED (IP346 DMSO Extracts <3%)	No	No	No
OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT	No	No	No
PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS (TYPE B)	No	***	N982 - Zn

### CLEAN AIR ACT

COMPONENT	CAA Accidental Release Prevention
OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT	No
PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS (TYPE B)	No
LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED (IP346 DMSO Extracts <3%)	No

**SARA HAZARD CATEGORIES** Acute Chronic

### US STATE REGULATIONS

COMPONENT	CA	MA	FL	MN	NJ	PA	RI
LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED (IP346 DMSO Extracts <3%)	No	No	No	No	No	No	No
OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT	No	No	No	No	No	No	No
PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS (TYPE B)	No	No	Yes	Yes	Yes	EH	No

**STATE REGULATORY STATUS** CALIFORNIA PROPOSITION 65: This product \*\*\*DOES NOT\*\*\* contain chemicals 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.

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.  
Antimony compounds regulated under CERCLA and SARA 313, Environmental Hazard <0.2%

### 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.

**Risk phrases** Classification per manufacturer.  
 R-22 Harmful if swallowed.  
 R-36/37/38 Irritating to eyes, respiratory system and skin.  
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**GLOBAL INVENTORIES**

COMPONENT	CAN	US	EU	AUS	JAP	KOR	PHLP	CHN
LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED (IP346 DMSO Extracts <3%)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT	DSL	Yes	EINECS	Yes	2-1416	Yes	Yes	Yes
PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS (TYPE B)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes

<b>USA (TSCA)</b>	CANADA CEPA: All components of this product comply with new substance notification requirements under the Canadian Environmental Protection Act (CEPA). All components in this product are listed on the US Toxic Substances Control Act (TSCA) Inventory or are exempt from TSCA Inventory requirements.
<b>CANADA (DSL)</b>	This product contains one or more components that are NOT LISTED on the Canada Domestic Substances List (DSL) and are NOT EXEMPT from DSL requirements.
<b>EUROPE (EINECS/ELINCS/NLP)</b>	All components in this product are listed on the European Inventory of New and Existing Chemical Substances (EINECS), the European List of Notified Chemical Substances (ELINCS), or the No Longer Polymers (NLP) list, or are exempt from EU listing requirements.
<b>JAPAN (ENCS)</b>	All components in this product are listed on the Japan Inventory of Existing and New Chemical Substances (ENCS) or are exempt from ENCS requirements.
<b>PHILIPPINES (PICCS)</b>	All components in this product are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS) or are exempt from PICCS requirements.
<b>AUSTRALIA (AICS)</b>	All components in this product are listed on the Australian Inventory of Chemical Substances (AICS) or are exempt from AICS requirements.
<b>KOREA (ECL)</b>	All components in this product are listed on the Korea Existing Chemicals List (ECL) or are exempt from KECL requirements.
<b>CHINA (IECS)</b>	All components in this product are listed on the China Inventory of Existing Chemical Substances (IECS) or are exempt from IECS requirements.

**16. OTHER INFORMATION**

**NFPA-HMIS HAZARD RATING**

<b>HEALTH</b>	Irritation, minor residual injury (1) - HMIS/NFPA
<b>FLAMMABILITY</b>	Burns only if pre-heated (1) - HMIS/NFPA
<b>REACTIVITY</b>	Normally Stable (0) - HMIS/NFPA
<b>NPCA HMIS HAZARD INDEX</b>	Slight: Slightly Toxic - May cause slight irritation (1).
<b>PERSONAL PROTECTION INDEX</b>	B - Safety Eyewear and Gloves

**NPCA HMIS FLAMMABILITY INDEX** Burns only if pre-heated (1).

**NPCA HMIS REACTIVITY INDEX** Normally stable (0).

**Tariff Code (Schedule B)** 2710.19.3750 Lubricating greases, with or without additives.

**PREPARED BY** Chemtool Incorporated

**DATE** 2010-01-21

**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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