



**MATERIAL SAFETY DATA SHEET**

in accordance with 91/155/EEC

**1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING**

**Product Name:** 613 Moly Grease

**Date of Preparation:** 31 March 2003

**MSDS No.** 154-7

Not classified as hazardous according to criteria of Worksafe Australia.

**Company:**

A.W. CHESTERTON COMPANY  
225 Fallon Road  
Stoneham, MA 02180-2999, USA  
Tel.: 781-438-7000  
(Mon. - Fri. 8:30 - 5:00 PM EST)

**Supplier:**

**For Chemical Emergency:**

24 hours per day, 7 days per week  
Call Infotrac: 1-800-535-5053  
Outside N. America: 352-323-3500 (collect)

**Use:** Multi-purpose extreme pressure grease with Molybdenum Disulfide. Petroleum base/Synthetic lubricant.

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

<b>Hazardous Ingredients<sup>†</sup></b>	<b>% Wt.</b>	<b>CAS No.</b>	<b>EC No.</b>	<b>Symbol</b>	<b>R-phrases</b>
Baseoil – unspecified*	65-100	64742-57-0 64742-65-0	265-160-8 265-169-7	–	–
Lithium 12-Hydroxystearate	1-25	7620-77-1	231-536-5	–	–
Molybdenum Sulfide	1-5	1317-33-5	215-263-9	–	–
Zinc Dialkyl Dithiophosphate	1-4	68649-42-3	272-028-3	–	–

\*Contains less than 3 % DMSO extract as measured by IP 346.

**3. HAZARDS IDENTIFICATION**

None expected in industrial use. As with any similar product, if swallowed in large quantities, this product could be harmful or fatal.

**4. FIRST AID MEASURES**

**Inhalation:** Remove to fresh air. If not breathing, administer artificial respiration. Contact physician.  
**Skin Contact:** Wash skin with soap and water. Contact physician if irritation persists.  
**Eye Contact:** Flush eyes for at least 15 minutes with large amounts of water. Contact physician if irritation persists.  
**Ingestion:** If conscious, drink large quantities of water. Contact physician immediately.  
**Injection:** Contact physician immediately. Transport immediately for medical treatment. Treat injection as a medical emergency. Delay may cause loss of affected part of the body.  
**Advice to Physician:** Treat symptoms.

**5. FIRE FIGHTING MEASURES**

**Extinguishing Methods:** Carbon Dioxide, dry chemical, foam or water spray  
**Unusual Fire and Explosion Hazards:** Water may cause frothing.  
**Special Fire Fighting Measures:** Cool exposed containers with water. Recommend Firefighters wear self-contained breathing apparatus.  
**Flammability Classification:** not determined  
**HAZCHEM Emergency Action Code:** 2 **Z**

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Utilize exposure controls and personal protection as specified in Section 8.  
**Environmental Precautions:** Keep out of sewers, streams and waterways.  
**Methods of Clean Up:** Contain spill to a small area. Pick up with absorbent material (sand, sawdust, clay, etc.) and place in a suitable container for disposal.

**7. HANDLING AND STORAGE**

**Handling:** Wash before eating, drinking or smoking. Utilize exposure controls and personal protection as specified in Section 8.  
**Storage:** Store in a cool, dry area.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Hazardous Ingredients	OSHA		ACGIH TLV		AUSTRALIA	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Oil Mist, Mineral	-	5	-	5 STEL 10	-	5
Lithium 12-Hydroxystearate	-	-	-	-	-	-
Molybdenum Sulfide	-	15	-	10	-	10
Zinc Dialkyl Dithiophosphate	-	-	-	-	-	-

<b>Respiratory Protection:</b>	Not normally needed. If exposure limits are exceeded, use an approved organic vapor respirator for mists.
<b>Ventilation:</b>	No special requirements. If vapors or mists are produced, provide adequate ventilation.
<b>Protective Gloves:</b>	Chemical resistant gloves
<b>Eye Protection:</b>	Safety glasses
<b>Other:</b>	Remove and wash contaminated clothing immediately.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	liquid	<b>Odour</b>	odorless
<b>Colour</b>	dark gray	<b>Vapour pressure @ 20°C</b>	< 0.1 mm Hg
<b>Initial boiling point</b>	not applicable	<b>% Aromatics by weight</b>	0
<b>Melting point</b>	not determined	<b>pH</b>	not applicable
<b>% Volatile (by volume)</b>	negligible	<b>Density</b>	0,895 kg/l
<b>Flash point</b>	not determined	<b>Weight per volume</b>	7.45 lbs/gal.
<b>Method</b>	–	<b>Coefficient (water/oil)</b>	< 1
<b>Viscosity</b>	not determined	<b>Vapour density (air=1)</b>	> 1
<b>Autoignition temp.</b>	not determined	<b>Rate of evaporation (ether=1)</b>	< 1
<b>Explosion limits</b>	not determined	<b>Solubility in water</b>	negligible
		<b>Other</b>	none

### 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Hazardous Decomposition Products:</b>	Carbon Monoxide, Carbon Dioxide, Hydrogen Sulfide and other toxic fumes. Hydrogen Sulfide
<b>Conditions to Avoid:</b>	Open flames and red hot surfaces.
<b>Materials to Avoid:</b>	Strong oxidizers like liquid Chlorine and concentrated Oxygen.

### 11. TOXICOLOGICAL INFORMATION

<b>Primary Route of Exposure Under Normal Use:</b>	Inhalation, skin and eye contact. Personnel with pre-existing dermatitis are generally aggravated by exposure.
<b>Acute Effects:</b>	Direct contact may cause slight skin and eye irritation. Vapor or mist may cause slight respiratory irritation.
<b>Chronic Effects:</b>	Prolonged or repeated skin contact may defat the skin and cause skin irritation.
<b>Other Information:</b>	As per 29 CFR 1910.1200 (Hazard Communication), this product contains no carcinogens as listed in the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC) or the Occupational Safety and Health Administration (OSHA).

### 12. ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. The information given below is based on a knowledge of the components and the ecotoxicology of similar substances.

<b>Mobility:</b>	Liquid. Solubility in water: negligible. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9).
<b>Degradability:</b>	Mineral Oil: not readily biodegradable.
<b>Accumulation:</b>	Mineral Oil: not expected to bioaccumulate.
<b>Ecotoxicity:</b>	Oil products, improperly released to the environment, can cause ground and water pollution.

**13. DISPOSAL CONSIDERATIONS**

Stabilization and solidification may be necessary prior to land disposal. Material is suitable for fuels blending or incineration. Check local, state and national/federal regulations and comply with the most stringent requirement.

EWC-code: 13 02 05

**14. TRANSPORT INFORMATION**

<b>TDG:</b> NONHAZARDOUS, NOT REGULATED	<b>U.S. DOT :</b> Shipping Name: NONHAZARDOUS Hazard Class: NOT REGULATED UN/NA # : NOT APPLICABLE Packaging Group # NOT APPLICABLE Emergency Response Guide Book No. - NOT APPLICABLE
<b>IMDG:</b> NONHAZARDOUS, NOT REGULATED	
<b>IATA/ICAO:</b> NONHAZARDOUS, NOT REGULATED	
<b>ADR/RID:</b> NONHAZARDOUS, NOT REGULATED	

**15. REGULATORY INFORMATION**

<b>European Classification:</b> <sup>†</sup>	none
<b>R-Phrase(s):</b>	–
<b>S-Phrase(s):</b>	–
<b>Name of the substances on the label:</b>	–
<b>Other labelling information:</b>	–

<b>Canadian Classification:</b> <sup>†</sup>	none
<b>Risk Phrase(s):</b>	–
<b>Precautionary and First Aid Measure(s):</b>	–
<b>Other labelling information:</b>	–

**16. OTHER INFORMATION**

<b>US EPA SARA TITLE III</b>	<b>Hazardous Materials Identification System (HMIS)</b>									
<b>312 Hazards :</b> Immediate	<b>313 Chemicals :</b> Zinc Compound	1-4%								
		4 = Severe Hazard 3 = Serious Hazard 2 = Moderate Hazard 1 = Slight Hazard 0 = Minimal Hazard * = See Section 8								
		<table border="1"> <tr> <td><b>HEALTH</b></td> <td><b>1</b></td> </tr> <tr> <td><b>FLAMMABILITY</b></td> <td><b>1</b></td> </tr> <tr> <td><b>REACTIVITY</b></td> <td><b>1</b></td> </tr> <tr> <td><b>Personal Protection</b></td> <td><b>*</b></td> </tr> </table>	<b>HEALTH</b>	<b>1</b>	<b>FLAMMABILITY</b>	<b>1</b>	<b>REACTIVITY</b>	<b>1</b>	<b>Personal Protection</b>	<b>*</b>
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<b>Personal Protection</b>	<b>*</b>									

<b>JAPAN PRTR</b>	<b>Class I Chemicals :</b>	<b>Class II Chemicals :</b>
	none	none

**Risk phrases in section 2:** none

**Changes to the MSDS in this revision:** sections 2, 8, 12, 13, 16.

This information is based solely on data provided by suppliers of the materials used, not on the mixture itself. No warranty is expressed or implied regarding the accuracy of the data or the suitability of the product for the user's particular purpose. The user must make their own determination as to suitability.