



MATERIAL SAFETY DATA SHEET

MC 2000HDM5

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME	MC 2000HDM5
PART No.	CSM2805200
PRODUCT USE	Lubricating Grease
SUPPLIER	Metalcote Division of Chemtool Inc. 8200 Ridgefield Road P.O. Box 538 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	2010-03-22

2. COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	WEIGHT
LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED**(2)	Mixture	50-70 %
OVERBASED CALCIUM SULFONATE COMPLEX THICKENER	Proprietary	20-40 %
*MOLYBDENUM SULFIDE (MoS ₂)	1317-33-5	2-6 %
OLEFIN COPOLYMER (OCP) VISCOSITY INDEX IMPROVER (VII)	Proprietary	1-5 %
*BENZENESULFONIC ACID, DODECYL-, CALCIUM SALT	26264-06-2	1-3 %

* 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.

** (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 64741-96-4; 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. None of the oils used are listed as a carcinogen by NTP, IARC, or OSHA.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Not regarded as a health hazard under current legislation. Exposure to vapors generated at high temperatures may cause respiratory irritation.

SENSITIZATION

No known information.

CARCINOGENICITY

IARC: Not listed as a Group 1, 2A, or 2B agent. OSHA: Not regulated. NTP: Not listed.

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. Inhalation of product vapor or mist may cause irritation of mucous membranes in nasal passages and throat. 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)

246 (475°F) Cd OC (Cleveland open cup).

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

Acrid smoke/fumes. Oxides of: Carbon. Sulfur.

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

Contain spill. Absorb small amounts. Collect and return large amounts to shipping container. Rinse area with water.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS

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
LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED**(2)	OSHA			5 mg/m3 (oil mist)	
	ACGIH			5 mg/m3 (oil mist)	10 mg/m3 (oil mist)
OVERBASED CALCIUM SULFONATE COMPLEX THICKENER	OSHA	15 mg/m3 (total)	as CaCO3	5 mg/m3 (resp)	as CaCO3
	ACGIH	1 mg/m3 (inh)	NIC 2005	10 mg/m3 **(e)	as CaCO3
MOLYBDENUM SULFIDE (MoS2)	OSHA			N/E	
	ACGIH	3 mg/m3 (resp) as Mo		10 mg/m3 (ihl) as Mo	
OLEFIN COPOLYMER (OCP) VISCOSITY INDEX IMPROVER (VII)	OSHA			5 mg/m3 (oil mist)	
	ACGIH			5 mg/m3 (oil mist)	10 mg/m3 (oil mist)

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.
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	Grey.		
ODOR	Mild (or faint). Petroleum.		
SOLUBILITY DESCRIPTION	Insoluble in water.		
DENSITY	0.96	Temperature (°C)	15.6 (60°F)
VAPOR DENSITY (air=1)	> 5		
VAPOR PRESSURE	< 0.1 mmHg	Temperature (°C)	20 (68°F)
EVAPORATION RATE	< 1	Reference	BuAc=1
pH-VALUE, CONC. SOLUTION	N/A		

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. Sulfur.

11. TOXICOLOGICAL INFORMATION

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

COMPONENT **LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED**(2)**

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 N/A.

COMPONENT **OVERBASED CALCIUM SULFONATE COMPLEX THICKENER**

TOXIC DOSE - LD 50 > 2000 (estimated) mg/kg (oral rat)
TOXIC DOSE - LD 50 SKIN > 2000 (estimated) mg/kg (skn rbt)
TOXIC CONC. - LC 50 > 0.5 (estimated) mg/l (inh-rat)

COMPONENT **MOLYBDENUM SULFIDE (MoS₂)**

TOXIC DOSE - LD 50 > 2000 mg/kg (oral rat)
TOXIC DOSE - LD 50 SKIN > 2000 mg/kg (skn rat)
TOXIC CONC. - LC 50 > 2820 ppm/4h (inh-rat)

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.
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
OVERBASED CALCIUM SULFONATE COMPLEX THICKENER	No	No	No
MOLYBDENUM SULFIDE (MoS ₂)	No	No	No
OLEFIN COPOLYMER (OCP) VISCOSITY INDEX IMPROVER (VII)	No	No	No
BENZENESULFONIC ACID, DODECYL-, CALCIUM SALT	No	1 000 lbs	No
LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED**(2)	No	No	No

CLEAN AIR ACT

SARA HAZARD CATEGORIES None

US STATE REGULATIONS

COMPONENT	CA	MA	FL	MN	NJ	PA	RI
LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED**(2)					Yes	Yes	
BENZENESULFONIC ACID, DODECYL-, CALCIUM SALT						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:
 1-Naphthylamine, CAS # 134-32-7
 2-Naphthylamine, CAS # 91-59-8, <1ppm

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
LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED**(2)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
OVERBASED CALCIUM SULFONATE COMPLEX THICKENER	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
MOLYBDENUM SULFIDE (MoS ₂)	DSL	Yes	EINECS	Yes	PRTR1	Yes	Yes	Yes
OLEFIN COPOLYMER (OCP) VISCOSITY INDEX IMPROVER (VII)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
BENZENESULFONIC ACID, DODECYL-, CALCIUM SALT	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 1: Name Change Section 2: Ingredients
PREPARED BY	Chemtool Regulatory Department
Replacement MSDS of	2005-04-13
PRINTING DATE:	2010-03-22
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