



# MATERIAL SAFETY DATA SHEET

## MC 2048CMPET

### 1. PRODUCT AND COMPANY IDENTIFICATION

<b>TRADE NAME</b>	MC 2048CMPET	PETROFIN INTERNATIONAL PTY. LTD. LEVEL 10, 350 KENT STREET SYDNEY NSW 2000
<b>PART No.</b>	370540	ABN 64 001 549 177 HORST HARBERS
<b>PRODUCT USE</b>	Lubricating Grease	TEL: 02 9299 1316 FAX: 02 9264 1516
<b>SUPPLIER</b>	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	
<b>EMERGENCY TELEPHONE</b>	Infotrac U.S. and Canada - (800) 535-5053 Outside the U.S. and Canada - +01-352-323-3500	
<b>Date of last issue</b>	2006-09-12	

### 2. COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	WEIGHT
DISTILLATES, PETROLEUM, SOLVENT-REFINED HEAVY NAPHTHENIC	64741-96-4	30-50 %
RESIDUAL OILS, PETROLEUM, SOLVENT-DEWAXED	64742-62-7	30-50 %
*LITHIUM COMPLEX THICKENER	Proprietary	7-13 %
CARBONIC ACID CALCIUM SALT (COMMON NAME: CALCIUM CARBONATE)	471-34-1	3-7 %
*MOLYBDENUM SULFIDE (MoS <sub>2</sub> )	1317-33-5	1-5 %
*PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS	68649-42-3	1-2 %
*ANTIMONY DIALKYL DITHIOCARBAMATE (NJTSRN 800983-5015P OR CAS# 15890-25-2)	Proprietary	<0.5 %

\* 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

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**EMERGENCY OVERVIEW**

Not regarded as a health hazard under current legislation. For further information, please refer to section 11.

<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>	<b>INHALATION.</b> 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. <b>SKIN CONTACT.</b> Repeated or prolonged contact can result in drying of the skin. <b>EYE CONTACT.</b> Slightly irritating. <b>INGESTION.</b> Can cause stomach ache and vomiting.
<b>ROUTE OF ENTRY</b>	Inhalation. Skin and/or eye contact. Ingestion.

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**4. FIRST AID MEASURES**

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<b>INHALATION</b>	Move the exposed person to fresh air at once. For breathing difficulties oxygen may be necessary. Get medical attention if any discomfort continues.
<b>EYES</b>	Rinse with water. Contact physician if discomfort continues.
<b>SKIN</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.  <b>INJECTION INJURY WARNING:</b> If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its 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.
<b>INGESTION</b>	<b>DO NOT INDUCE VOMITING!</b> 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>EXTINGUISHING MEDIA</b>	Water spray, fog or mist. Foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemicals, sand, dolomite etc.

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<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.

## 6. ACCIDENTAL RELEASE MEASURES

<b>PERSONAL PRECAUTIONS</b>	Minimize skin contact.
<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.

## 7. HANDLING AND STORAGE

<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>STORAGE PRECAUTIONS</b>	Keep away from heat, sparks and open flame. Store separated from: Acids. Oxidizing materials.
<b>STORAGE CRITERIA</b>	Chemical storage.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENT	STD	TWA	STEL	TWA	STEL
DISTILLATES, PETROLEUM, SOLVENT-REFINED HEAVY NAPHTHENIC	OSHA			5 mg/m3 (oil mist)	
	ACGIH			5 mg/m3 (oil mist)	10 mg/m3 (oil mist)
RESIDUAL OILS, PETROLEUM, SOLVENT-DEWAXED	OSHA			5 mg/m3 (oil mist)	
	ACGIH			5 mg/m3 (oil mist)	10 mg/m3 (oil mist)
CARBONIC ACID CALCIUM SALT (COMMON NAME: CALCIUM CARBONATE)	OSHA	10 mg/m3 (total)		5 mg/m3 (resp)	
	ACGIH			10 mg/m3	**(e)
MOLYBDENUM SULFIDE (MoS2)	OSHA			N/E	

	ACGIH	3 mg/m3 (resp) as Mo	10 mg/m3 (h1) as Mo
ANTIMONY DIALKYL DITHIOCARBAMATE (NJTSRN OSHA 800983-5015P OR CAS# 15890-25-2)			0.5 mg/m3 as Sb
	ACGIH		0.5 mg/m3 as Sb

**INGREDIENT COMMENTS**

\*\*ACGIH (e): Total dust, containing no asbestos and <1% crystalline silica

**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 required for prolonged or repeated contact. Use protective gloves made of: Neoprene, nitrile, polyethylene or PVC.

**EYE PROTECTION**

Use eye protection.

**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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**


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

## 11. TOXICOLOGICAL INFORMATION

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

<b>COMPONENT</b>	<b>DISTILLATES, PETROLEUM, SOLVENT-REFINED HEAVY NAPHTHENIC</b>
<b>TOXICOLOGICAL DATA</b>	Carcinogenicity. IP 346 1.2-3.0%
<b>TOXIC DOSE - LD 50</b>	No Information Available (NIA).
<b>TOXIC CONC. - LC 50</b>	No Information Available (NIA).
<b>CARCINOGENICITY</b>	Base oils in this product contain < 3% DMSO Extractable total polycyclic aromatic compound (PAC) per IP 346.
<b>COMPONENT</b>	<b>RESIDUAL OILS, PETROLEUM, SOLVENT-DEWAXED</b>
<b>TOXICOLOGICAL DATA</b>	Corrosive effects. Draize Eye. Rabbit. 6-15/120 Corrosive effects. Draize Skin. Rabbit. 0.5-3/8.0
<b>TOXIC DOSE - LD 50</b>	> 2000 estimated mg/kg (oral rat)
<b>TOXIC DOSE - LD 50 SKIN</b>	> 2000 estimated mg/kg (skn rbt)
<b>TOXIC CONC. - LC 50</b>	> 5 estimated mg/l (inh-rat)
<b>CARCINOGENICITY</b>	Base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects.

## 12. ECOLOGICAL INFORMATION

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

## 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.

**IDENTIFICATION No.** N/A

<b>TDGR CLASS</b>	Not Regulated.
<b>SEA TRANSPORT NOTES</b>	Not regulated per IMDG.
<b>AIR TRANSPORT NOTES</b>	Not regulated per IATA.

## 15. REGULATORY INFORMATION

### US FEDERAL REGULATIONS

COMPONENT	SARA 302	CERCLA	SARA 313
ANTIMONY DIALKYLDITHIOCARBAMATE (NJTSRN 800983-5015P OR CAS# 15890-25-2)	No	***	N010 - Sb
DISTILLATES, PETROLEUM, SOLVENT-REFINED HEAVY NAPHTHENIC	No	No	No
RESIDUAL OILS, PETROLEUM, SOLVENT-DEWAXED	No	No	No
LITHIUM COMPLEX THICKENER	No	No	No
CARBONIC ACID CALCIUM SALT (COMMON NAME: CALCIUM CARBONATE)	No	No	No
MOLYBDENUM SULFIDE (MoS <sub>2</sub> )	No	No	No
PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS	No	***	N982 - Zn

**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
MOLYBDENUM SULFIDE (MoS <sub>2</sub> )					Yes		
PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS				Yes	Yes	EH	
ANTIMONY DIALKYLDITHIOCARBAMATE (NJTSRN 800983-5015P OR CAS# 15890-25-2)				Yes		EH	

**STATE REGULATORY STATUS**                      PROPOSITION 65 REPRODUCTIVE HAZARD: 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 reproductive toxicity, and for which warnings are now required:

N-Methylpyrrolidone, developmental hazard, CAS# 872-50-4 traces < 35 ppm  
 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  
 Antimony 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.

**Risk phrases** No R-phrases required

**GLOBAL INVENTORIES**

COMPONENT	CAN	US	EU	AUS	JAP	KOR	PHLP	CHN
DISTILLATES, PETROLEUM, SOLVENT-REFINED HEAVY NAPHTHENIC	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
RESIDUAL OILS, PETROLEUM, SOLVENT-DEWAXED	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
LITHIUM COMPLEX THICKENER	DSL	Yes	EINECS	Yes	Yes	Yes		Yes
CARBONIC ACID CALCIUM SALT (COMMON NAME: CALCIUM CARBONATE)	DSL	Yes	EINECS	Yes	1-122	Yes	Yes	Yes
MOLYBDENUM SULFIDE (MoS <sub>2</sub> )	DSL	Yes	EINECS	Yes	PRTR1	Yes	Yes	Yes
PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS	NPRI	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
ANTIMONY DIALKYL DITHIOCARBAMATE (NJTSRN 800983-5015P OR CAS# 15890-25-2)	NPRI	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). TSCA 12(b) NOTICE: This product contains one or more components that require reporting under TSCA Section 12(b) when exported. This product may be subject to US EPA requirement for one-time export notification per country. Contact the Regulatory Compliance Manager for more information. Diphenylamine, CAS# 122-39-4 (TSCA Section 4)

**AUSTRALIA (AICS)** All components in this product are listed on the Australian Inventory of Chemical Substances (AICS) or are exempt from AICS 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>PERSONAL PROTECTION INDEX</b>	B - Safety Eyewear and Gloves
<b>REVISION COMMENTS</b>	Section 15: Inventory Status
<b>PREPARED BY</b>	James W. Hermann
<b>Replacement of MSDS generated</b>	2004-12-28
<b>DATE</b>	2006-09-12

**PRINTING DATE:** 2006-09-12

**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**