



MATERIAL SAFETY DATA SHEET

CT CARTRIDGE PIN LUBE

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME	CT CARTRIDGE PIN LUBE
Product number	700660
PRODUCT USE	Gear Oil
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	2007-03-23

2. COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	WEIGHT
SEVERELY REFINED MINERAL OIL	Proprietary	50-70 %
DISTILLATE OILS, PETROLEUM, HIGHLY REFINED, 150 SOLVENT NEUTRAL**(6)	Mixture	15-30 %
*MOLYBDENUM SULFIDE (MoS ₂)	1317-33-5	7-13 %
OLEFIN SULFIDE (NJTSRN 800967-5492)	Proprietary	5-10 %
PHOSPHORIC ACID ESTERS, AMINE SALT (NJTSRN 800967-5494)	Proprietary	1-5 %

* This chemical(s) is hazardous according to OSHA/WHMIS 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.

**(6) The petroleum distillate oils for this product can be a mixture of any of the following highly solvent-refined petroleum streams:

CAS 64741-88-4; CAS 64741-89-5; CAS 64742-01-4 (<1%); CAS 64742-54-7; and CAS 64742-65-0. Carcinogenicity: The petroleum base oils contained in this product have been highly refined by solvent extraction and/or solvent dewaxing 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

Prolonged exposure to product mist or vapors may cause respiratory irritation.

SENSITIZATION

No known information.

CARCINOGENICITY

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

TERATOGENICITY

No known information.

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. Slightly irritating. Repeated or prolonged contact can result in drying of the skin. EYE CONTACT. May cause slight eye irritation. May cause very slight transient (temporary) corneal injury. INGESTION. Can cause stomach ache and vomiting. Main hazard, if ingested, is aspiration into the lungs and subsequent pneumonitis.

ROUTE OF ENTRY

Skin and/or eye contact. Ingestion. Inhalation.

4. FIRST AID MEASURES

INHALATION

Remove victim immediately from source of exposure. Get medical attention if any discomfort continues. For breathing difficulties oxygen may be necessary. If breathing stops, provide artificial respiration.

EYES

Important! Immediately rinse with water for at least 15 minutes. Get medical attention if any discomfort continues.

SKIN

Immediately remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

INGESTION

DO NOT induce vomiting. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

FLASH POINT (°C)

182 Cd OC (Cleveland open cup).

FLAMMABILITY LIMIT - LOWER(%)

N/D

FLAMMABILITY LIMIT - UPPER(%)

N/D

EXTINGUISHING MEDIA

Use: Dry chemicals, sand, dolomite etc. Foam. Carbon dioxide (CO₂).

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. Keep run-off water out of sewers and water sources. Dike for water control. Avoid water in straight hose stream; will scatter and spread fire.

UNUSUAL FIRE & EXPLOSION HAZARDS

Pressure will increase in over heated, closed containers.

HAZARDOUS COMBUSTION PRODUCTS

Acrid smoke/fumes. Oxides of: Carbon. Phosphorus. 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. Avoid breathing vapors. Wear an appropriate respirator if exposure exceeds recommended guidelines.
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	Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Do not reuse container. Keep lid closed when not in use. Do not store or mix with strong oxidizers. Eye wash and emergency shower must be available at the work place.
STORAGE PRECAUTIONS	Keep away from heat, sparks and open flame. Store separate from strong acids and oxidizers.
STORAGE CRITERIA	Chemical storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENT	STD	TWA	STEL	TWA	STEL
SEVERELY REFINED MINERAL OIL	OSHA ACGIH			5 mg/m3 (oil mist) 5 mg/m3 (oil mist)	10 mg/m3 (oil mist)
DISTILLATE OILS, PETROLEUM, HIGHLY REFINED, 150 SOLVENT NEUTRAL**(6)	OSHA ACGIH			5 mg/m3 (oil mist)	10 mg/m3 (oil mist)
MOLYBDENUM SULFIDE (MoS ₂)	OSHA ACGIH		3 mg/m3 (resp) as Mo	N/E 10 mg/m3 (ihl) as Mo	

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	For prolonged or repeated skin contact use suitable protective gloves.
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.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE	Clear. Liquid.		
COLOR	Amber.		
ODOR	Mild (or faint).		
SOLUBILITY DESCRIPTION	Insoluble in water.		
BOILING POINT (°C, range)	> 316 (600°F)	Pressure	760mmHg
DENSITY	0.91	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
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. Phosphorus.

11. TOXICOLOGICAL INFORMATION

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

COMPONENT	SEVERELY REFINED MINERAL OIL
TOXIC DOSE - LD 50	> 2000 mg/kg (oral rat)
TOXIC DOSE - LD 50 SKIN	> 2000 mg/kg (skn rbt)
TOXIC CONC. - LC 50	> 5 mg/l (inh-rat)

CARCINOGENICITY	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.
COMPONENT	DISTILLATE OILS, PETROLEUM, HIGHLY REFINED, 150 SOLVENT NEUTRAL **⁽⁶⁾
TOXICOLOGICAL DATA	Carcinogenicity. IP 346: <3% Irritating effects. Eye. Rabbit. DRAIZE: 6-15/110 Irritating effects. Skin. Rabbit. DRAIZE: 0.5-3.0/8.0
TOXIC DOSE - LD 50	> 2,000 mg/kg (oral rat)
TOXIC DOSE - LD 50 SKIN	> 2,000 mg/kg (skn rbt)
TOXIC CONC. - LC 50	> 5 mg/l (inh-rat)
CARCINOGENICITY	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.
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.
IDENTIFICATION No.	N/A
U.S. DOT HAZARD LABEL	No DOT label requirement
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
SEVERELY REFINED MINERAL OIL	No	No	No
DISTILLATE OILS, PETROLEUM, HIGHLY REFINED, 150 SOLVENT NEUTRAL**(6)	No	No	No
MOLYBDENUM SULFIDE (MoS2)	No	No	No
OLEFIN SULFIDE (NJTSRN 800967-5492)	No	No	No
PHOSPHORIC ACID ESTERS, AMINE SALT (NJTSRN 800967-5494)	No	No	No

CLEAN AIR ACT

SARA HAZARD CATEGORIES None

US STATE REGULATIONS

COMPONENT	CA	MA	FL	MN	NJ	PA	RI
MOLYBDENUM SULFIDE (MoS2)					Yes		

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:

Ethyl acrylate, CAS # 140-88-5, <1ppm

Arsenic, <1ppm

Cadmium, <1ppm

Lead, <1ppm

Ethylbenzene, cancer hazard, CAS# 100-41-4 <10 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.

Propanol, 2-, Environmental Hazard, CAS# 67-63-0 <0.2%

Pseudocumene, Environmental Hazard, CAS# 95-63-6 <0.1%

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
SEVERELY REFINED MINERAL OIL	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
DISTILLATE OILS, PETROLEUM, HIGHLY REFINED, 150 SOLVENT NEUTRAL**(6)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
MOLYBDENUM SULFIDE (MoS2)	DSL	Yes	EINECS	Yes	PRTR1	Yes	Yes	Yes
OLEFIN SULFIDE (NJTSRN 800967-5492)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
PHOSPHORIC ACID ESTERS, AMINE SALT (NJTSRN 800967-5494)	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 2: Ingredients Section 11: Toxicological Information Section 15: US Regulatory Status. Section 15: WHMIS Section 15: Inventory Status
PREPARED BY	James W. Hermann
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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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