

CHEMTOOL
INCORPORATED

MATERIAL SAFETY DATA SHEET
CAT HYDRAULIC OIL ADDITIVE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME CAT HYDRAULIC OIL ADDITIVE
PART NO. Chemtool, 840650, Caterpillar, 1U-9891, 9X-2037
SUPPLIER Chemtool Incorporated
P.O. Box 538
8200 Ridgeland Road
Crystal Lake, IL 60039-0538 USA
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2. COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	WEIGHT
9-OCTADECENOIC ACID [Z], 3-HYDROXY-2,2-BIS(HYDROXYMETHYL) PROPYL ESTER	10332-32-8	100 %

COMPOSITION COMMENTS

Chemical ingredients not regulated by OSHA or SARA are treated confidentially. This product contains no ingredients at greater than 1% which have been assigned exposure limits by regulatory agencies.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

INHALATION No specific health warnings noted.
INGESTION May cause discomfort if swallowed.
SKIN No specific health warnings noted.
EYES Irritating to eyes.

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	This product has low toxicity. Only large quantities may have adverse impact on human health.
ROUTE OF ENTRY	Skin and/or eye contact. Ingestion. Inhalation.

4. FIRST AID MEASURES

INHALATION	Remove victim immediately from source of exposure. If breathing stops, provide artificial respiration. For breathing difficulties oxygen may be necessary. Get medical attention if any discomfort continues.
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.
INGESTION	DO NOT induce vomiting. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

FLASH POINT (°C)	274 (525 F) 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. 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. Use special protective clothing. Regular protection may not be safe. Prevent inhalation of fumes and gases.
UNUSUAL FIRE & EXPLOSION HAZARDS	Volume and pressure increases strongly when heated. Risk of container explosion in fire.
HAZARDOUS COMBUSTION PRODUCTS	Acrid smoke/fumes. Oxides of: Carbon.
PROTECTIVE MEASURES IN CASE OF FIRE	Self-contained breathing equipment and chemical resistant clothing recommended.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Minimize skin contact. Wear suitable eye protection.
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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 CLEANUP PROCEDURES

Carefully collect spilled material in closed containers and leave for disposal according to local regulations. Provide good ventilation. Use appropriate protective clothing. Rinse area with water. Do not let washing down water contaminate ponds or waterways.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS

Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Containers to be kept tightly closed. Eye wash and emergency shower must be available at the work place.

STORAGE PRECAUTIONS

Store separated from: Acids. No special storage precautions noted.

STORAGE CRITERIA

Chemical storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

INGREDIENT COMMENTS

No exposure limits indicated for ingredient(s).

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. Use protective gloves made of: Neoprene, nitrile, polyethylene or PVC.

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	Clear, Liquid.		
COLOR	Colorless, to Light (or pale), Yellow.		
ODOR	Mild (or faint).		
SOLUBILITY DESCRIPTION	Insoluble in water.		
DENSITY	0.94	Temperature (°C)	15.6 (60°F)
VAPOR DENSITY (air=1)	> 1		
VAPOR PRESSURE	< 0.1 mmHg	Temperature (°C)	20 (68°F)
EVAPORATION RATE	< 1	Reference	BuAc=1

10. STABILITY AND REACTIVITY

STABILITY	Normally stable.
HAZARDOUS POLYMERIZATION	Will not polymerize.
HAZARDOUS DECOMPOSITION PRODUCTS	Oxides of: Carbon.

11. TOXICOLOGICAL INFORMATION

COMPONENT	9-OCTADECENOIC ACID [Z], 3-HYDROXY-2-2-BIS(4-HYDROXYMETHYL) PROPYL ESTER
TOXIC DOSE - LD 50	> 64000 for similar products mg/kg (oral rat)
TOXIC CONC. - LC 50	No information Available (N/A).
SENSITIZATION	No known information.
GENOTOXICITY	No known information.
CARCINOGENICITY	IARC: Not listed as a Group 1, 2A, or 2B agent.
REPRODUCTION TOXICITY	No known information.

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION	No data on possible environmental effects have been found.
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13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS	Confirm disposal procedures with environmental engineer and local regulations.
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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

COMPONENT	US FEDERAL REGULATIONS	SARA 302	CERCLA	SARA 313
9-OCTADECENOIC ACID (Z), 3-HYDROXY-2,2-BIS(HYDROXYMETHYL) PROPYL ESTER		No	No	No

CLEAN AIR ACT

SARA HAZARD CATEGORIES None

US STATE REGULATIONS

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.

COMPONENT 9-OCTADECENOIC ACID (Z), 3-HYDROXY-2,2-BIS(HYDROXYMETHYL) PROPYL ESTER	GLOBAL INVENTORIES							
	CAN	US	EU	AUS	JAP	KOR	PHLP	CHN
	DSL	Yes	EINECS	Yes	Yes	Yes	No	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 RATINGS

HEALTH No health hazards (0) - 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 11: Toxicological Information
Section 15: WHMIS

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Replacement MSDS of 2006-02-23

DATE 2008-10-06

PRINTING DATE: 2008-10-06

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