12088 - CAT HYDRAULIC OIL ADDITIVE

C
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:
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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 (DEG. 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 (CO_2).

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.

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:
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 NOTED FOR INGREDIENT(S).

PROTECTIVE EQUIPMENT:
GLOVES
CHEMICAL GOGGLES

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 (DEG. C): 15.6 (60 DEG. F)

VAPOR DENSITY (AIR=1): >1

VAPOR PRESSURE: <0.1 MMHg
TEMPERATURE (DEG. C): 20 (68 DEG. 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(HYDROXYMETHYL) PROPYL ESTER

TOXIC DOSE - LD50: >64000 FOR SIMILAR PRODUCTS MG/KG (ORAL RAT)

TOXIC CONC. - LC50: NO INFORMATION AVAILABLE (NIA).

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:
NO DATA ON POSSIBLE ENVIRONMENTAL EFFECTS HAVE BEEN FOUND.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:
CONFIRM DISPOSAL PROCEDURES WITH ENVIRONMENTAL ENGINEER AND LOCAL 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
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.

GLOBAL INVENTORIES:

COMPONENT	CAN	US	EU	AUS	JAP	KOR	PHLP	CHN
9-OCTADECENOIC ACID (Z)-, 3-HYDROXY-2,2-BIS(HYDROXYMETHYL) PROPYL ESTER	DSL	YES	EINECS	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 (0) - HMIS/NFPA NO HEALTH HAZARDS
FLAMMABILITY (1) - HMIS/NFPA BURNS ONLY IF PRE-HEATED
REACTIVITY (0) - HMIS/NFPA NORMALLY STABLE
PERSONAL PROTECTION INDEX B - SAFETY EYEWEAR AND GLOVES

REVISION COMMENTS:
SECTION 11: TOXICOLOGICAL INFORMATION
SECTION 15: WHMIS

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DISCLAIMER:
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| INFORMATION REVISED SINCE PREVIOUS MSDS VERSION