

STANDARD OIL CO OF OHIO -- X-232, HYDRAULIC OIL -- 9150-00-162-8385  
===== Product Identification =====

Product ID: X-232, HYDRAULIC OIL  
MSDS Date: 04/01/1986  
FSC: 9150  
NIIN: 00-162-8385  
MSDS Number: BKBVY  
=== Responsible Party ===  
Company Name: STANDARD OIL CO OF OHIO  
Address: 200 PUBLIC SQ  
City: CLEVELAND  
State: OH  
ZIP: 44114-2375  
Country: US  
Info Phone Num: 800-321-8642/216-586-8024  
Emergency Phone Num: 800-321-8642/800-362-8059(OHIO)  
Preparer's Name: R. K. RIGNEY  
CAGE: 82250  
=== Contractor Identification ===  
Company Name: BP OIL COMPANY  
Address: 200 PUBLIC SQ  
Box: City: CLEVELAND  
State: OH  
ZIP: 44114-2375  
Country: US  
Phone: 216-586-8023  
CAGE: 82250  
Company Name: HYDRONIC CORP (313-477-2288)  
CAGE: 12017

===== Composition/Information on Ingredients =====

Ingred Name: KEROSENE (ALIPHATIC PETROLEUM SOLVENT)  
CAS: 8008-20-6  
RTECS #: OA5500000  
Fraction by Wt: 80-90%  
Other REC Limits: NONE SPECIFIED

ingred Name:PETROLEUM OIL (DISTILLATE (PETROLEUM) SOLVENT REFINED LIGHT PARAFFINIC)

CAS:64741-89-5

RTECS #:PY8041500

Fraction by Wt: 10-20%

Other REC Limits:NONE SPECIFIED

ingred Name:MIXTURE OF PETROLEUM HYDROCARBON AND SELECTED ADDITIVES (SUCH AS ANTIFOAM,ANTIRUST,DEMULSIFYING AGENT)

Other REC Limits:NONE SPECIFIED

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===== Hazards Identification =====

Routes of Entry: Inhalation:NO Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:NO OS

HA:NO

Health Hazards Acute and Chronic:ACUTE: MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT. INGESTION: MAY LEAD TO VOMITING, NAUSEA, HEADACHE, DIARRHEA. CHRONIC: REPEATED AND PROLONGED SKIN CONTACT MAY CAUSE DERMATITIS.

Explanation of Carcinogenicity:THE COMPONENTS OF THIS PRODUCT HAVE NOT SHOWN ANY EVIDENCE OF BEING CARCINOGENIC.

Effects of Overexposure:INHALATION:OVEREXPOSURE MAY LEAD TO RESPIRATORY IRRITATION. INGESTION:MAY CAUSE NAUSEA,VOMITING,AND DIARRHEA A

ND

POSSIBLY UNCONSCIOUSNESS. EYES:CAUSES MILD IRRITATION.VAPORS MAY CAUSE TEARS/IRRITATION . SKIN:COMPONENTS ARE UNLIKELY TO BE ABSORBED THROUGH SKIN IN HARMFUL CONCENTRATION BUT MAY CAUSE IRRITATION.

Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN DISORDER SHOULD USE CAUTION WHEN HANDLING OR USING THIS PRODUCT.

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===== First Aid Measures =====

First Aid:SKIN: REMOVE CONTAMINATED CLOTHING. WASH WITH SOAP AND WATER.

GET MEDICAL ATTENTION IF IRRITATION PERSISTS. INHALATION: REMOVE TO FRESH AIR & RESTORE BREATHING IF NECESSARY. GET MEDICAL ATTENTION. EYE : IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION. INGESTION: GET IMMEDIATE MEDICAL ATTENTION. DO NOT INDUCE VOMITING. NOTHING BY MOUTH IF UNCONSCIOUS.

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===== Fire Fighting Measures =====

Flash Point Method:TCC

Flash Point:140F,60C

Lower Limits:0.7

Upper Limit

s:5.0

Extinguishing Media:USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL.

Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. EVACUATE AREA. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.

Unusual Fire/Explosion Hazard:COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS.RUNOFF TO SEWER MAY CAUSE FIRE OR EXPLOSION HAZARD.CONTAINERS MAY EXPLODE IN HEAT.

===== Accidental Release Measures =====

Spill Release Procedures:REMOVE IGNITION SOURCES.USE PROTECTIVE GEARS.  
SMALL SPILL:ABSORB WITH RAGS,CLAY AND PLACE IN CLOSED DOT DRUMS.  
LARGE SPILL:CONTAIN BY DIKING WITH CLAY,VERMICULITE,OR SIMILAR ABSORBENT MATERIAL.PUMP LI Q TO SALVAGE TANK.PLACE ABSORBED WASTE IN DOT DRUM

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN A COOL, VENTILATED WORK AREA. KEEP CONTAINERS CLOSED WHEN NOT IN USE.AVOID PHYSICAL DAMAGE TO CONTAINERS.AVOID SKIN AND CLOTHING CONTACT.

Other Precautions:THE SELECTION OF PERSONAL PROTECTIVE EQUIPMENT SHOULD BE MADE BY THE MATERIAL USER BASED ON THE PARTICULAR CONDITIONS WHERE THE MATERIAL IS TO BE USED TOGETHER WITH INFORMATION CONTAINED IN THIS MSDS.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:NONE NORMALLY REQUIRED. IN CONFINED SPACES OR WHEN NEEDED, USE NIOSH APPROVED RESPIRATOR OR AIR-SUPPLIED OR FILTERING TYPE WITH ORGANIC VAPOR CARTRIDGES ARE RECOMMENDED.

Ventilation:LOCAL AND MECHANICAL EXHAUST RECOMMENDED.

Protective Gloves:IMPERVIOUS

Eye Protection:SAFETY GOGGLES/GLASSES.

Other Protective Equipment:EYE WASH STATION & SAFETY SHOWER.

Work Hygienic Practices:DO NOT TAKE INTERNALLY. AVOID SKIN CONTACT. WASH SKIN AFTER USING PRODUCT. DO NOT EAT, DRINK OR SMOKE IN WORK AREA.

Supplemental Safety and Health

NON-SPECIFICATION ITEM.PER DLSC-TIR,ITEM IS SOLE SOURCE

RCE UNDER

P/N:ENERGOL HLP-2,CAGE 8225(SOHIO); AND P/N:X-232,CAGE  
12017,(HYDRONIC CORP). DURING 80'S HYDRONIC CORP SUPPLIED THE ITEM  
BUT FURNISHED MS DS OF SOHIO'S PRODUCT ENERGOL HLP-2. THIS ENTRY IS  
ACTUALLY OF ENERGO HLP-2 FOR X-232 UNDER HYDRONIC CORP.

===== Physical/Chemical Properties =====

HCC:F4

Boiling Pt:>310.C, 590.F

Vapor Pres:0.5MMHG

Vapor Density:>1 AIR=1

Spec Gravity:0.825

Viscosity:1.8-2.7 CST

Evaporation Rate & Reference: