

DATE: 08/14/93 ACCT: 888235-01
 INDEX: N/A CAT NO: BP151100 PO NBR: N/A

POLYOXYETHYLATED OCTYL PHENOL
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MATERIAL SAFETY DATA SHEET

FISHER SCIENTIFIC CHEMICAL DIVISION
 1 REAGENT LANE FAIR LAWN NJ 07410
 (201) 796-7100

EMERGENCY NUMBER: (201) 796-7100
 CHEMTREC ASSISTANCE: (800) 424-9300

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SUBSTANCE IDENTIFICATION

CAS-NUMBER 9002-93-1
 SUBSTANCE: **POLYOXYETHYLATED OCTYL PHENOL**

TRADE NAMES/SYNONYMS:

OCTYLPHENOXYPOLYETHOXYPOLYETHANOL;
 POLY(OXY-1,2-ETHANEDIYL), ALPHA-(4-(1,1,3,3-TETRAMETHYLBUTYL)PHENYL);
 -OMEGA-HYDROXY-OCTOXYNOL;
 ALPHA-(4-(1,1,3,3-TETRAMETHYLBUTYL)PHENYL)-OMEGA-HYDROXYPOLY(OXY-1,
 2-ETHANEDIYL);
 GLYCOLS, POLYETHYLENE, MONO(P-1,1,3,3-TETRAMETHYLBUTYL)PHENYL) ETHER;
 POLYETHYLENE GLYCOLS MONO(P-1,1,3,3-TETRAMETHYLBUTYL)PHENYL) ETHER;
 POLYETHYLENE GLYCOL P-ISOOCTYLPHENYL ETHER;
 POLYETHYLENE GLYCOL ALKYLARYL ETHER; OCTYLPHENOXYPOLY(ETHYLENEOXY)ETHANOL;
 ALKYLPHENYLPOLYETHYLENEGLYCOL; TRITON X-100; OCTOXYNOL-9;
 MONO(P-1,1,3,3-TETRAMETHYLBUTYL)PHENYL) ETHER POLYETHYLENE GLYCOLS; LC26280;
 BP151; ACC00473

CHEMICAL FAMILY:
 ALKYL ARYL POLYETHER ALCOHOL

SURFACTANT

MOLECULAR FORMULA: (C2-H4-O)X-C14-H22-O

MOLECULAR WEIGHT: VARIES

CERCLA RATINGS (SCALE 0-3): HEALTH=2 FIRE=1 REACTIVITY=0 PERSISTENCE=1
 NFPA RATINGS (SCALE 0-4): HEALTH=2 FIRE=1 REACTIVITY=0

COMPONENTS AND CONTAMINANTS

COMPONENT: POLYOXYETHYLATED OCTYL PHENOL PERCENT: 100.0
 CAS# 9002-93-1

OTHER CONTAMINANTS: MAY CONTAIN TRACES OF ETHYLENE OXIDE.

EXPOSURE LIMITS:

ETHYLENE OXIDE:
 1 PPM OSHA TWA; 5 PPM OSHA 15 MINUTE EXCURSION LIMIT;
 0.5 PPM OSHA TWA ACTION LEVEL
 1 PPM ACGIH TWA
 ACGIH A2-SUSPECTED HUMAN CARCINOGEN.
 NOT TO EXCEED 0.1 PPM NIOSH RECOMMENDED 8 HOUR TWA;
 5 PPM NIOSH RECOMMENDED 10 MINUTE CEILING

MEASUREMENT METHOD: CHARCOAL TUBE (PETROLEUM-BASED); DIMETHYLFORMAMIDE; GAS CHROMATOGRAPHY WITH ELECTRON CAPTURE DETECTION; (NIOSH VOL. III # 1614).

1000 POUNDS SARA SECTION 302 THRESHOLD PLANNING QUANTITY
 1 POUND SARA SECTION 304 REPORTABLE QUANTITY
 10 POUNDS CERCLA SECTION 103 REPORTABLE QUANTITY
 5000 POUNDS OSHA PROCESS SAFETY MANAGEMENT THRESHOLD QUANTITY
 SUBJECT TO SARA SECTION 313 ANNUAL TOXIC CHEMICAL RELEASE REPORTING
 SUBJECT TO CALIFORNIA PROPOSITION 65 CANCER AND/OR REPRODUCTIVE TOXICITY
 WARNING AND RELEASE REQUIREMENTS- (FEBRUARY 27, 1987)

PHYSICAL DATA

DESCRIPTION: CLEAR TO PALE YELLOW VISCOUS LIQUID WITH AROMATIC ODOR AND A

BITTER TASTE. BOILING POINT: 518 F (270 C)

SPECIFIC GRAVITY: 1.0595 @ 25 C VOLATILITY: 0.5%

VAPOR PRESSURE: NIL @ 20 C EVAPORATION RATE: (WATER=1) 1

DATE: 08/14/93 ACCT: 888235-01
 INDEX: N/A CAT NO: BP151100 PO NBR: N/A

PH: 5.5-7.0 @ 10% SOLN SOLUBILITY IN WATER: SOLUBLE VAPOR DENSITY: 21

SOLVENT SOLUBILITY: SOLUBLE IN BENZENE, TOLUENE, ALCOHOL, AND ACETONE;
 INSOLUBLE IN PETROLEUM ETHER AND SOLVENT HEXANE.

FIRE AND EXPLOSION DATA

FIRE AND EXPLOSION HAZARD:
 SLIGHT FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME.

FLASH POINT: 200 F (94 C) (PMCC) FLAMMABILITY CLASS(OSHA): IIIB

FIREFIGHTING MEDIA:
 DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY OR REGULAR FOAM
 (1990 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.5).

FOR LARGER FIRES, USE WATER SPRAY, FOG OR REGULAR FOAM
 (1990 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.5).

FIREFIGHTING:
 MOVE CONTAINER FROM FIRE AREA IF YOU CAN DO IT WITHOUT RISK. DO NOT SCATTER
 SPILLED MATERIAL WITH HIGH-PRESSURE WATER STREAMS. DIKE FIRE-CONTROL WATER FOR
 LATER DISPOSAL (1990 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.5, GUIDE
 PAGE 31).

USE AGENTS SUITABLE FOR TYPE OF SURROUNDING FIRE. AVOID BREATHING HAZARDOUS
 VAPORS, KEEP UPWIND.

TOXICITY

POLYOXYETHYLATED OCTYL PHENOL:
 IRRITATION DATA: 2 MG/3 DAYS INTERMITTENT SKIN-HUMAN MILD; 1 MG EYE-RABBIT
 MODERATE.
 TOXICITY DATA: 3000 MG/KG SKIN-RABBIT LD50 (VWR MSDS); 1800 MG/KG ORAL-RAT
 LD50; 1200 MG/KG INTRAVENOUS-MOUSE LD50; MUTAGENIC DATE (RTECS);
 REPRODUCTIVE EFFECTS DATA (RTECS).
 CARCINOGEN STATUS: NONE.
 LOCAL EFFECTS: IRRITANT- EYE.
 ACUTE TOXICITY LEVEL: MODERATELY TOXIC BY INGESTION; SLIGHTLY TOXIC BY
 DERMAL ABSORPTION.
 TARGET EFFECTS: NO DATA AVAILABLE.

HEALTH EFFECTS AND FIRST AID

INHALATION:
 POLYOXYETHYLATED OCTYL PHENOL:
 ACUTE EXPOSURE- MIST MAY CAUSE IRRITATION OF THE MUCOUS MEMBRANES, NOSE,
 EYES AND THROAT, COUGHING, AND DIFFICULTY IN BREATHING.
 CHRONIC EXPOSURE- NO DATA AVAILABLE.

FIRST AID- REMOVE FROM EXPOSURE AREA TO FRESH AIR IMMEDIATELY. IF BREATHING
 HAS STOPPED, PERFORM ARTIFICIAL RESPIRATION. KEEP PERSON WARM AND AT REST.
 TREAT SYMPTOMATICALLY AND SUPPORTIVELY. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT:
 POLYOXYETHYLATED OCTYL PHENOL:
 ACUTE EXPOSURE- MAY CAUSE IRRITATION AND MAY BE ABSORBED.
 CHRONIC EXPOSURE- REPEATED OR PROLONGED EXPOSURE MAY CAUSE IRRITATION OR
 DERMATITIS IN SOME INDIVIDUALS.

FIRST AID- REMOVE CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH AFFECTED
 AREA WITH SOAP OR MILD DETERGENT AND LARGE AMOUNTS OF WATER UNTIL NO
 EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL
 ATTENTION IMMEDIATELY.

EYE CONTACT:
 POLYOXYETHYLATED OCTYL PHENOL:
 IRRITANT.
 ACUTE EXPOSURE- CONTACT MAY CAUSE PAINFUL STINGING OR BURNING OF EYES AND
 LIDS, WATERING OF EYES, CONJUNCTIVITIS, AND OPAQUENESS OF CORNEA POSSIBLY
 LEADING TO LOSS OF SIGHT.
 CHRONIC EXPOSURE- REPEATED OR PROLONGED CONTACT WITH IRRITANTS MAY CAUSE
 CONJUNCTIVITIS.

FIRST AID- WASH EYES IMMEDIATELY WITH LARGE AMOUNTS OF WATER. OCCASIONALLY
 LIFTING UPPER AND LOWER LIDS. UNTIL NO EVIDENCE OF CHEMICAL REMAINS (AT
 LEAST 15-20 MINUTES). CONTINUE IRRIGATING WITH NORMAL SALINE UNTIL THE PH
 HAS RETURNED TO NORMAL (30-60 MINUTES). COVER WITH STERILE BANDAGES. GET
 MEDICAL ATTENTION IMMEDIATELY.

INGESTION:
 POLYOXYETHYLATED OCTYL PHENOL:
 ACUTE EXPOSURE- ANIMALS FED ALKYL PHENOXY POLYETHOXY ETHANOLS EXHIBITED
 GASTROINTESTINAL IRRITATION WITH DIARRHEA AND BLOATING.
 CHRONIC EXPOSURE- REPRODUCTIVE EFFECTS HAVE BEEN REPORTED IN ANIMALS.

DATE: 08/14/93

ACCT: 888235-01

PAGE: 3

INDEX: N/A

CAT NO: BP151100

PO NBR: N/A

FIRST AID- TREAT SYMPTOMATICALLY AND SUPPORTIVELY. GET MEDICAL ATTENTION IMMEDIATELY. IF VOMITING OCCURS, KEEP HEAD LOWER THAN HIPS TO PREVENT ASPIRATION.

ANTIDOTE:
NO SPECIFIC ANTIDOTE. TREAT SYMPTOMATICALLY AND SUPPORTIVELY.

REACTIVITY

REACTIVITY:
STABLE UNDER NORMAL TEMPERATURES AND PRESSURES.

INCOMPATIBILITIES:
POLYOXYETHYLATED OCTYL PHENOL:
BRASS: CORROSIVE ON LONG STORAGE.
COPPER: CORROSIVE ON LONG STORAGE.
OXIDIZERS (STRONG): FIRE AND EXPLOSION HAZARD.
PERCHLORIC ACID (68-72%): VIOLENT DECOMPOSITION.
REDUCING AGENTS (STRONG): INCOMPATIBLE.
SEE ALSO ETHERS.

ETHERS:
BORON TRIIODIDE: VIGOROUS REACTION.

DECOMPOSITION:
THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE TOXIC OXIDES OF CARBON.

POLYMERIZATION:
HAZARDOUS POLYMERIZATION HAS NOT BEEN REPORTED TO OCCUR UNDER NORMAL TEMPERATURES AND PRESSURES.

STORAGE AND DISPOSAL

OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS WHEN STORING OR DISPOSING OF THIS SUBSTANCE.

STORAGE

STORE AWAY FROM INCOMPATIBLE SUBSTANCES.

STORE AT ROOM TEMPERATURE. AVOID EXPOSURE TO HEAT.

CONDITIONS TO AVOID

MAY BURN BUT DOES NOT IGNITE READILY. AVOID CONTACT WITH STRONG OXIDIZERS, EXCESSIVE HEAT, SPARKS, OR OPEN FLAME.

TRACE AMOUNTS OF ETHYLENE OXIDE, A CARCINOGEN, MAY BE PRESENT IN THIS PRODUCT. THERE IS A POTENTIAL FOR ACCUMULATION OF ETHYLENE OXIDE IN THE HEAD SPACE OF CONTAINERS OR IN ENCLOSED AREAS WHERE THE PRODUCT IS STORED, HANDLED OR USED. USERS SHOULD COMPLY WITH 29 CFR 1910.1047.

SPILL AND LEAK PROCEDURES

WATER SPILL:
THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 (PROPOSITION 65) PROHIBITS CONTAMINATING ANY KNOWN SOURCE OF DRINKING WATER WITH SUBSTANCES KNOWN TO CAUSE CANCER AND/OR REPRODUCTIVE TOXICITY.

OCCUPATIONAL SPILL:
STOP LEAK IF YOU CAN DO IT WITHOUT RISK. FOR SMALL SPILLS, TAKE UP WITH SAND OR OTHER ABSORBENT MATERIAL AND PLACE INTO CLEAN, DRY CONTAINERS FOR LATER DISPOSAL. KEEP UNNECESSARY PEOPLE AWAY. ISOLATE HAZARD AREA AND DENY ENTRY.

REPORTABLE QUANTITY (RQ): 1 POUND
THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) SECTION 304 REQUIRES THAT A RELEASE EQUAL TO OR GREATER THAN THE REPORTABLE QUANTITY FOR THIS SUBSTANCE BE IMMEDIATELY REPORTED TO THE LOCAL EMERGENCY PLANNING COMMITTEE AND THE STATE EMERGENCY RESPONSE COMMISSION (40 CFR 355.40). IF THE RELEASE OF THIS SUBSTANCE IS REPORTABLE UNDER CERCLA SECTION 103, THE NATIONAL RESPONSE CENTER MUST BE NOTIFIED IMMEDIATELY AT (800) 424-8802 OR (202) 426-2675 IN THE METROPOLITAN WASHINGTON, D.C. AREA (40 CFR 302.6).

PROTECTIVE EQUIPMENT

VENTILATION:
PROVIDE LOCAL EXHAUST OR GENERAL DILUTION VENTILATION SYSTEM.

RESPIRATOR:
THE FOLLOWING RESPIRATORS ARE RECOMMENDED BASED ON INFORMATION FOUND IN THE PHYSICAL DATA, TOXICITY AND HEALTH EFFECTS SECTIONS. THEY ARE RANKED IN ORDER FROM MINIMUM TO MAXIMUM RESPIRATORY PROTECTION
THE SPECIFIC RESPIRATOR SELECTED MUST BE BASED ON CONTAMINATION LEVELS FOUND IN THE WORK PLACE, MUST BE BASED ON THE SPECIFIC OPERATION, MUST NOT EXCEED

DATE: 08/14/93

ACCT: 888235-01

PAGE: 4

INDEX: N/A

CAT NO: BP151100

PO NBR: N/A

THE WORKING LIMITS OF THE RESPIRATOR AND MUST BE JOINTLY APPROVED BY THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH AND THE MINE SAFETY AND HEALTH ADMINISTRATION (NIOSH-MSHA).

ANY SUPPLIED-AIR RESPIRATOR OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.

ANY SELF-CONTAINED BREATHING APPARATUS.

FOR FIREFIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS:

ANY SELF-CONTAINED BREATHING APPARATUS THAT HAS A FULL FACEPIECE AND IS OPERATED IN A PRESSURE-DEMAND OR OTHER POSITIVE-PRESSURE MODE.

ANY SUPPLIED-AIR RESPIRATOR THAT HAS A FULL FACEPIECE AND IS OPERATED IN A PRESSURE-DEMAND OR OTHER POSITIVE-PRESSURE MODE IN COMBINATION WITH AN AUXILIARY SELF-CONTAINED BREATHING APPARATUS OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE-PRESSURE MODE.

CLOTHING:
EMPLOYEE MUST WEAR APPROPRIATE PROTECTIVE (IMPERVIOUS) CLOTHING AND EQUIPMENT TO PREVENT REPEATED OR PROLONGED SKIN CONTACT WITH THIS SUBSTANCE.

GLOVES:
EMPLOYEE MUST WEAR APPROPRIATE PROTECTIVE GLOVES TO PREVENT CONTACT WITH THIS SUBSTANCE.

EYE PROTECTION:
EMPLOYEE MUST WEAR SPLASH-PROOF OR DUST-RESISTANT SAFETY GOGGLES AND A FACESHIELD TO PREVENT CONTACT WITH THIS SUBSTANCE.

EMERGENCY WASH FACILITIES:
WHERE THERE IS ANY POSSIBILITY THAT AN EMPLOYEE'S EYES AND/OR SKIN MAY BE EXPOSED TO THIS SUBSTANCE, THE EMPLOYER SHOULD PROVIDE AN EYE WASH FOUNTAIN AND QUICK DRENCH SHOWER WITHIN THE IMMEDIATE WORK AREA FOR EMERGENCY USE.

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