

GREAT LAKES CHEMICAL CORP -- REOLUBE MP 280B -- 9150-01-113-2046

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Product Identification
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Product ID:REOLUBE MP 280B

MSDS Date:01/03/2001

FSC:9150

NIIN:01-113-2046

Status Code:A

MSDS Number: CLNTZ

=== Responsible Party ===

Company Name:GREAT LAKES CHEMICAL CORP

Address:1 GREAT LAKES BLVD

Box:2200

City:WEST LAFAYETTE

State:IN

ZIP:47996-2200

Country:US

Info Phone Num:765-497-6100

Emergenc

y Phone Num:800-949-5167

Resp. Party Other MSDS Num.:MSDS NUMBER: 00736

Chemtrec Ind/Phone:(800)424-9300

CAGE:2E394

=== Contractor Identification ===

Company Name:GREAT LAKES CHEMICAL CORP

Address:1801 HWY 52 NW

Box:2200

City:WEST LAFAYETTE

State:IN

ZIP:47996-2200

Country:US

Phone:765-497-6100/800-949-5167

Contract Num:SP0450-01-R-1744

CAGE:2E394

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Composition/Information on Ingredients
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Ingred Name:TER-BUTYLATED TRIPHENYL PHOSPHATES

CAS:68937-40-6

Minimum % Wt:60.

M

aximum % Wt:100.

Ingred Name:TRIPHENYL PHOSPHATE

CAS:115-86-6

RTECS #:TC8400000

Minumum % Wt:7.

Maxumum % Wt:13.

OSHA PEL:3 MG/M3

ACGIH TLV:3 MG/M3

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:EYE: NOT EXPECTED TO BE A HAZARD IN
NORMAL INDUSTRIAL USE. SKIN: NOT EXPECTED TO BE A HAZARD IN NORMAL
INDUSTRIAL USE. INGESTION

: NOT EXPECTED TO BE A HAZARD IN NORMAL

INDUSTRIAL USE. INHALATION: N OT EXPECTED TO BE A HAZARD IN NORMAL
INDUSTRIAL USE. CHRONIC: MAY CAUSE REPRODUCTIVE AND FERTILITY
EFFECTS BASED ON ANIMAL DATA. EPIDEMIOLOGY STUDIES COMPLETED IN
1977 AND 1985 OF CURRENT AND FORMER WORKERS AT THE PRODUCTION
FACILITY WERE KRONITEX, DURAD, NATURAL AND SYNTHETIC TRIARYL
PHOSPHATE ESTERS ARE MANUFACTURED HAVE NOT DEMOSTRATED ANY UNUSUAL
PATTERN OF MORTALITY OR DISEASE.

Explanation o

f Carcinogenicity:ACGIH: NO. OTHER: NO.

Effects of Overexposure:NO KNOWN SIGNS AND SYMPTOMS OF EXPOSURE.

Medical Cond Aggravated by Exposure:NONE REPORTED.

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

First Aid:EYES: FLUSH WITH LARGE VOLUMES OF WATER FOR AT LEAST 15
MINUTES. GET MEDICAL ATTENTION. SKIN: WASH WITH LARGE VOLUMES OF
SOAP AND WATER FOR AT LEAST 15 MINUTES. IF IRRITATION DEVELOPS, GET
MEDICAL AT TENTION. INGESTION: IF CONSCIOUS, GIVE PERSON 1 TO

2

GLASSES OF WATER. GET MEDICAL ATTENTION IMMEDIATELY. INHALALATION:
REMOVE PERSON TO FRESH AIR. GET MEDICAL ATTENTION. ANTIDOTES: NO
INFORMATION AVA ILABLE. "SEE OTHER INFORMATION"

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

Flash Point Method:PMCC

Flash Point:=243.3C, 470.F

Autoignition Temp:=538.C, 1000.4F

Lower Limits:NOT AVAILABL

Upper Limits:NOT AVAILABL

Extinguishing Media:WATER FOG, CARBON DIOXIDE (CO2), DRY CHEMICAL,
MULTIPURPOSE FOAM.

Fire F

ighting Procedures:WEAR A SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT SKIN AND EYE CONTACT IN FIRE SITUATIONS.

Unusual Fire/Explosion Hazard:UNDER FIRE CONDITIONS, TOXIC AND IRRITATING FUMES MAY BE EMITTED. SLIGHTLY COMBUSTIBLE. NO EXPLOSION HAZARD.

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

Spill Release Procedures:SPILL: ABSORB SPILLED MATERIAL ON COMMERCIAL OIL ABSORBANT OR SAND. PLACE IN SUITABLE LABELED CONTAINER FOR

DISPOSAL. ENVIRONMENTAL PRECAUTIONS: KEEP MATERIAL OUT OF STREAMS AND SEWERS. AVOID RELEASIN G TO THE ENVIRONMENT.

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

Handling and Storage Precautions:HANDLING-USE APPROPRIATE PERSONAL PROTECTION EQUIPMENT. AVOID EYE, SKIN & CLOTHING CONTACT. DO NOT BREATHE MIST OR VAPOR. AVOID REPEATED & PROLONGED CONTACT. AVOID THE GENERATION OF AEROSOLS FROM SPRA YING, POURING OR VIGOROUS AGITATION WHENEVER POSSIBLE, PAR TICULARLY IF PRODUCT IS HEATED.

Other Precautions:STORAGE-IF THE GENERATION OF AIRBORNE MATERIAL CANNOT BE AVOIDED, EXHAUST VENTILATION &/OR PERSONALK PROTECTIVE EQUIPMENT SHOULD BE USED. STORAGE-STORE IN A COOL, DRY, WELL-VENTILATED AREA AWAY FROM I NCOMPATIBLE MATERIALS. KEEP CONTAINER TIGHTLY CLOSED. PROTECT CONTAINER AGAINST DAMAGE.

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

Respiratory Protection:WEAR A NIOSH/MSHA APPROVED ORGANIC CARTRIDGE RES PIRATOR IF MISTING OR VAPOR OCCURS, OR THERE IS POTENTIAL FOR AIRBORNE EXPOSURES TO EXCEED ESTABLISHED THRESHOLD VALUES. CONSULT THE OSHA RESPIRATORY PR OTECTION INFORMATION LOCATED AT 29 CFR 1910.134 AND THE AMERICAN NATIONAL STANDARD INSTITUTE'S PRACTICES OF RESPIRATORY PROTECTION Z88.2. " SEE OTHER INFO"

Ventilation:USE LOCAL VENTILATION TO KEEP LEVELS BELOW ESTABLISHED THRESHOLD VALUES. USE MECHANICAL VENTILATION FOR GENERAL AREA CONTROL.

Protective Gloves:BUTYL(HEAVY

DUTY) OR POLYETHYLENE (LIGHT DUTY)
GLOVES.

Eye Protection:CHEMICAL SAFETY GOGGLES.

Other Protective Equipment:VITRON FLUOROELASTOMER, NITRILE AND LATEX
GLOVES ARE SUITABLE FOR SHORT TERM SERVICE. WEAR AN APRON OR
IMPERVIOUS CLOTHING AND RUBBER BOOTS IF SPLASHING IS EXPECTED.

Work Hygienic Practices:WASH THOROUGHLYAFTER HANDLING. WASH
CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health

PRODUCT NAME: REOLUBE MP 280B. SYNONYMS: TRIARYL PHOSPHATE,
TERT-BUTYLATED;

DURAD MP 280B; TERT-BUTYLATED TRIPHENYL PHOSPHATE.

PRODUCT USE: HIGH PERFORMANCE HYDRAULIC FLUID. CHEMICAL NAME:
TERT-BUTYLA TED TRIPHENYL PHS\OSPHATE. CHEMICAL FAMILY: ARYL
PHOSPHATE.

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

HCC:V7

Boiling Pt:B.P. Text:220C TO 270C @4MMHG

Melt/Freeze Pt:M.P/F.P Text:NOT AVAILABLE

Decomp Temp:Decomp Text:NOT AVAILABLE

Vapor Pres:0.033 MMHG AT 150C

Vapor Density:NOT AVAILA

Spec Gravity:1.145-1.165 @ 20 DEG C

Viscosity:NOT

AVAILABLE

Evaporation Rate & Reference:NOT AVAILABLE

Solubility in Water:INSOLUBLE

Appearance and Odor:CLEAR LIQUID. ODOR: NONE. COLOR: NONE

Percent Volatiles by Volume:NONE PROVIDE

Corrosion Rate:NONE PROVIDED BY MFR

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

NONE KNOWN.

Stability Condition to Avoid:STABLE UNDER NORMAL CONDITIONS OF HANDLING
AND USE.

Hazardous Decomposition Products:THERMAL DECOMPOSITION MAY PRODUCT

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FOLLOWING OXIDES OF PHOSPHORUS: CARBON MONOXIDE AND CARBON DIOXIDE.
Conditions to Avoid Polymerization: WILL NOT OCCUR.

===== Toxicological Information =====

Toxicological Information: ACUTE: BASED ON A SIMILAR PRODUCT, THIS PRODUCT HAS LOW ACUTE ORAL AND DERMAL TOXICITY AND IS NOT IRRITATING TO THE EYES AND SKIN. NO EVIDENCE OF DELAYED NEUROTOXICITY WAS OBSERVED IN RATS & HENS FOLLOWING ACUTE EXPOSURE. CHRONIC: NO DATA AVAILABLE FOR THE PROD

UCT. BASED ON A

SIMILAR PRODUCT, THIS PRODUCT IS NOT MUTAGENIC IN THE AMES TEST. A REPRODUCTIVE STUDY WITH A BUTYLATED TRIPHENYL PHOSPHATE INDICATED A SIGNIFICANT DECLINE IN REPRODUCTION IN FEMALE RATS CHARACTERIZED BY LOW MATING & FERTILITY INDICES, DECREASED NUMBER OF LITTERS & ABNORMAL ESTROUS CYCLES. FERTILITY WAS ALSO DECREASED IN MALE RATS.

===== Ecological Information =====

Ecological: NO DATA AVAILABLE FOR THE PRODUCT. INFO GIVEN HERE IS FOR A

SIMILAR PRODUCT. 96 HR LC50 (RAINBOW TROUT)= 3.4 (2.8-4.0) MG/L; 96 HR LC50 (FATHEAD MINNOW)= 42.3 (32.6-54.9) MG/L; 48 HR EC50 (DAPHNIA MAGNA)= 3.9 (3.2-4.7) MG/L. NO DATA AVAILABLE ON CHEMICAL FATE.

===== Disposal Considerations =====

Waste Disposal Methods: DISPOSE OF WASTE AT AN APPROVED CHEMICAL DISPOSAL FACILITY IN COMPLIANCE WITH ALL CURRENT LOCAL, STATE/PROVINCE, FEDERAL/CANADIAN LAWS & REGS. IF THE PRODUCT WAS SUPPLIED IN A SINGLE USE CONTAINER, CARE SHOULD BE TAKEN TO DISPOSE OF IN A RESPONSIBLE MANNER & IN ACCORDANCE WITH APPLICABLE REGULATIONS. LABEL PRECAUTIONS SHOULD FOLLOW CONTAINERS.

===== MSDS Transport Information =====

Transport Information: U.S. DOT. PROPER SHIPPING NAME: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIPHENYL PHOSPHATE/TER-BUTYLATED TRIPHENYL PHOSPHATE MIXTURES CONTAINING 10% TO 48% TRIPHENYL PHOSPHATE). HAZARD CLASS: 9

. GROUP: III. SPECIAL

PROVISIONS: 8, N50, T1. NON-BULK PACKAGING: 203. PASSENGER AIR/RAIL
LIMIT: NONE. VESSEL STOWAGE: A. REPORTABLE QUANTITY: N/A. ID
NUMBER: UN3082. LABELS: MISCELLANEOUS, MARINE POLLUTANT. PACKAGING
EXCEPTIONS: 155. BULK PACKAGING: 241. AIR CARGO LIMIT: NONE. OTHER
STOWAGE: N/A.

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===== Regulatory Information =====

SARA Title III Information:SARA HAZARDS: ACUTE-NO, REACTIVE-NO,
PRESSURE-NO, CHRONIC-YES, FIRE-NO.

Federa

I Regulatory Information:THE COMPONENTS OF THIS PRODUCT ARE
EITHER ON THE TSCA INVENTORY OR EXEMPT (I.E. IMPURITIES, A POLYMER
COMPLYING WITH THE EXEMPTION RULE AT 40 CFR 728.250) FROM THE
INVENTORY.

State Regulatory Information:STATE REGULATIONS: TRIPHENYL PHOSPHATE:
MASSACHUSETTES SUBSTANCE LIST, NEW JERSEY RIGHT TO KNOWN SUBSTANCE
LIST (1% REPORTING LIMIT), PENNSYLVANIA HAZARDOUS SUBSTANCE LIST
(1% REPORTING LIMIT).

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===== Other Information =====

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articular situation.