

UNION CARBIDE CHEMICALS AND PLASTICS CO INC -- CARBOWAX(TM) POLYETHYLENE GLYCOL  
200 -- 6810-01-257-1864

===== Product Identification =====

Product ID:CARBOWAX(TM) POLYETHYLENE GLYCOL 200

MSDS Date:06/18/1999

FSC:6810

NIIN:01-257-1864

Status Code:A

MSDS Number: CJSQQ

=== Responsible Party ===

Company Name:UNION CARBIDE CHEMICALS AND PLASTICS CO INC

Address:39 OLD RIDGEBURY RD

City:DANBURY

State:CT

ZIP:06817-0001

Country:US

Info Phone Num:1-800-568-4000

Emergency Phone Num:1-304-744-3487

Resp. Party Other MSDS Num.:448

CAGE:0TAZ2

=== Contractor Identification ===

Company Name:EMULTEC INDUSTRIAL PRODUCTS INC

Address:1150 HAYDEN DR SUITE 100

Box:City:CHARROLLTON

State:TX

ZIP:75006

Country:US

Phone:972-417-1288

Contract Num:SP0450-00-M-D059

CAGE:0WA27

Company Name:UNION CARBIDE CORPORATION

Address:39 OLD RIDGEBURY RD

Box:City:DANBURY

State:CT

ZIP:06817-0001

Country:US

Phone:1-800-568-4000 /

732-563-5522  
CAGE:0TAZ2

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Composition/Information on Ingredients  
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Ingred Name:POLYETHYLENE OXIDE  
CAS:25322-68-3  
RTECS #:TQ3500000  
> Wt:95.

Ingred Name:DIETHYLENE GLYCOL  
CAS:111-46-6  
RTECS #:ID5950000  
< Wt:5.

Ingred Name:ETHYLENE GLYCOL  
CAS:107-21-1  
RTECS #:KW2975000  
< Wt:1.  
ACGIH STEL:C127 MG/M3;C50 PPM  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

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

Health Hazards Acute and Chronic:ACUTE: INHALATION-SHORT-TERM HARMFUL EFFECTS ARE NOT EXPECTED FROM VAPOR GENERATED AT AMBIENT TEMPERATURE. EYE CONTACT, SKIN CONTACT, SWALLOWING-NO EVIDENCE OF HARMFUL EFFECTS FROM AVAILABLE INFORMATION. CHRONIC: ALTHOUGH THIS MATERIAL IS NOT A SKIN IRRITANT, SUBMERSION BY WORKERS OF UNPROTECTED SKIN IN HIGHLY CONCENTRATED SOLUTIONS OF THIS MATERIAL FOR PROLONGED PERIODS OF TIME COULD RESULT IN SKIN DEHYDRATION.

Effects of Overexposure:OVEREXPOSURE TO VAPOR GENERATED AT HIGH TEMPERATURES MAY RESULT IN EYE AND RESPIRATORY TRACT IRRITATION, DIZZINESS, NAUSEA AND THE INHALATION OF HARMFUL AMOUNTS OF MATERIAL.

Medical Condition Aggravated by Exposure:A KNOWLEDGE OF THE AVAILABLE TOXICOLOGY INFORMATION AND OF THE PHYSICAL AND CHEMICAL PROPERTIES OF THE MATERIAL SUGGESTS THAT OVEREXPOSURE IS UNLIKELY TO AGGRAVATE EXISTING MEDICAL CONDITIONS

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First Aid Measures  
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First Aid:INHALATION-NO EMERGENCY CARE ANTICIPATED. EYE-FLUSH EYES THOROUGHLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF WORN. SKIN CONTACT- WASH SKIN WITH SOAP AND WATER. SWALLOWING-NO EMERGENCY CARE ANTICIPATED. NOTES TO PHYSICIAN- TOXICOLOGY STUDIES HAVE SHOWN THIS TO BE OF VERY LOW ACUTE TOXICITY AND NONIRRITATING. THERE IS NO SPECIFIC ANTIDOTE.TREATMENT OF OVEREXPOSURE SHOULD BE DIRECTED AT THE CONTROL OF SYMPTOMS AND CLINICAL CONDITION OF THE PAIENT.

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

Flash Point Method:PMCC

Flash Point:=185.C, 365.F

Lower Limits:N/D

Upper Limits:N/D

Extinguishing Media:EXTINGUISH FIRES WITH WATER SPRAY/APPLY ALCOHOL-TYPE/ALL PURPOSE TYPE FOAM BY MANUFACTURERS RECOMMENDED TECHNIQUES FOR LARGE FIRES. USE CARBON DIOXIDE OR DRY CHEMICAL FOR SMALL FIRE.

Fire Fighting Procedures:DO NOT DIRECT A SOLID STREAM OF WATER OR FOAM INTO HOT BURNING POOLS; THIS MAY CAUSE FROTHING AND INCREASE FIRE INTENSITY. USE SELF CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard:SUDDEN RELEASE OF HOT ORGANIC VAPORS OR MISTS FROM PROCESS EQUIPMENT OPERATING AT ELEVATED TEMPERATURE/PRESSURE, OR SUDDEN INGRESS OF AIR INTO HOT EQUIPMENT UNDER A VACUUM, MAY RESULT IN IGNITIONS WIT HOUT THE PRESENCE OF OBVIOUS IGNITION SOURCES.

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

Spill Release Procedures:SMALL SPILLS CAN BE FLUSHED WITH LARGE AMOUNTS OF WATER, LARGER SPILLS SHOULD BE COLLECTED FOR DISPOSAL.

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

Handling and Storage Precautions:KEEP CONTAINER CLOSED. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. ATTENTION! USE PRODUCT PROMPTLY AFTER OPENING. AVOID PROLONGED EXPOSURE TO HEAT AND AIR.

Other Precautions:DISPOSAL CONSIDERATIONS: AT VERY LOW CONCENTRATIONS IN WATER, THIS PRODUCT IS BIODEGRADA

BLE IN A BIOLOGICAL WASTEWATER  
TREATMENT PLANT.

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

Respiratory Protection:IF PERSONNEL EXPOSURE EXCEEDS UNION CARBIDE EXPOSURE LIMITS FOR ETHYLENE GLYCOL AT ANY TIME, SELECT RESPIRATORY PROTECTION EQUIPMENT IN ACCORDANCE WITH 29CFR1910.134. NIOSH-APPROVED ATMOSPHERE-SUPPLYING RESPIRATOR OR A NIOSH-APPROVED AIR-PURIFYING RESPIRATOR WITH ORGANIC CARTRIDGE AND DUST/MIST PRE-FILTER IS RECOMMENDED.

Ventilation

:GENERAL (MECHANICAL) ROOM VENTILATION IS EXPECTED TO BE SATISFACTORY.

Protective Gloves:POLYVINYL CHLORIDE COATED.

Eye Protection:SAFETY GLASSES OR MONOGOGGLES

Other Protective Equipment:EYE BATH, SAFETY SHOWER

Work Hygienic Practices:WASH WITH SOAP AND WATER IF SKIN COMES IN CONTACT WITH PRODUCT.

Supplemental Safety and Health

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

HCC:N1

Boiling Pt:>200.C, 392.F

B.P. Text:(760 MMHG)

Melt/Freeze Pt:=-65.C, -85.F

Vapor P

res:10000 MG/L. ECOTOXICITY TO FISH:

FATHEAD MINNOW LC50 96 H>10000 MG/L. THOD (MEASURED) 1.70 MG/MG.

THOD (CALCULATED) 1.67 MG/MG.

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

Waste Disposal Methods:INCINERATE IN A FURNACE WHERE PERMITTED UNDER FEDERAL, STATE, AND LOCAL REGULATIONS. DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS. EMPTY CONTAINERS SHOULD BE RECYCLED OR DISPOSED OF THROUGH AN APPROVED WASTE MANAGEMENT FACILITY.

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

Transport Information:U.S. D.O.T. NON-BULK, PROPER SHIPPING NAME: NOT REGULATED. BULK, PROPER SHIPPING NAME: NOT REGULATED.

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

SARA Title III Information:SECTIONS 302 AND 304: NONE. SECTION 313: ETHYLENE GLYCOL, CAS# 107-21-1,