

UNION CARBIDE CORP., INDUSTRIAL CHEMICALS DIVISION -- ETHYLENE GLYCOL MIXTURE,  
PM-3961 -- 6850-00-078-4459

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

Product ID:ETHYLENE GLYCOL MIXTURE, PM-3961

MSDS Date:03/21/1990

FSC:6850

NIIN:00-078-4459

MSDS Number: BCXNQ

=== Responsible Party ===

Company Name:UNION CARBIDE CORP., INDUSTRIAL CHEMICALS DIVISION

Address:39 OLD RIDGEBURY ROAD

City:DANBURY

State:CT

ZIP:0

6817-0001

Country:US

Info Phone Num:800-822-4357

Emergency Phone Num:304-744-3487

CAGE:61637

=== 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

CAGE:0WA27

Company Name:HF SCIENTIFIC INC.

Address:3170 METRO PARKWAY S.E.

City:FORT MYERS

State:FL

ZIP:33916-7539

Country:US

Phone:941-337-2116

CAGE:58177

Company Name:OCTAGON PROCESS INC.

Address:596 RIVER ROAD

Box:City:EDG

EWATER  
State:NJ  
ZIP:07020  
Country:US  
Phone:201-945-9400  
CAGE:82925  
Company Name:UNION CARBIDE CORP  
Address:39 OLD RIDGEBURY ROAD  
Box:City:DANBURY  
State:CT  
ZIP:06817-0001  
Country:US  
Phone:800-822-4357/732-563-5522 (MSDS)  
CAGE:61637

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

Ingred Name:ETHYLENE GLYCOL (SARA III)  
CAS:107-21-1  
RTECS #:KW2975000  
Fraction by Wt: 61.5%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:C 50 PPM  
ACGIH TLV:C 50 PPM,VAPOR; 9192  
EPA Rpt Qty:1 LB  
DOT Rpt  
Qty:1 LB

Ingred Name:BENZOIC ACID, SODIUM SALT  
CAS:532-32-1  
RTECS #:DH6650000  
Fraction by Wt: 1.5%  
Other REC Limits:NONE SPECIFIED

Ingred Name:NON HAZARDOUS INGREDIENT(S)  
Fraction by Wt: 37%  
Other REC Limits:NONE SPECIFIED

Ingred Name:1,4-DIOXANE (DIETHYLENE DIOXIDE) (SARA III)  
CAS:123-91-1  
RTECS #:JG8225000  
Fraction by Wt: 0.0016%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:S, 100 PPM  
ACGIH TLV:S, 25 PPM; 9293  
EPA Rpt Qty:100 LBS  
DOT Rpt Qty:100 LBS

Ingred Name:METHYL ALCOHOL (METHANOL) (SA

RA III)  
CAS:67-56-1  
RTECS #:PC1400000  
Fraction by Wt: 0.0014%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:S,200PPM/250STEL  
ACGIH TLV:S,200PPM/250STEL; 93  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

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

LD50 LC50 Mixture:ACUTE ORAL LD50 (RAT) IS 8540 MG/KG  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:ACUTE: INGESTION:ABDOMINAL DISCOMFORT

OR PAIN, NAUSEA, CENTRAL NERVOUS SYSTEM DEPRESSION. SEVERE KIDNEY AND LIVER DAMAGE FROM LARGE AMOUNTS; MAY BE FATAL.  
INHALATION:IRRITATION OF THE NOSE AND THROAT. EYE:DISCOMFORT WITH TRANSIENT CONJUNCTIVITIS. CHRONIC:INHALATION OF MIST MAY PRODUCE SIGNS OF CNS DISTURBANCES.

Explanation of Carcinogenicity:NONE OF THE COMPOUNDS IN THIS PRODUCT IS LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.

Effects of Overexposure:INGESTION: MAY CAUSE ABDOMINAL DISCOMFORT,DIZZINESS, MAL

AISE, LUMBAR PAIN,NAUSEA, AND CENTRAL NERVOUS SYSTEM DEPRESSION. LARGE AMOUNT MAY BAE FATAL.MAY CAUSE CARDIAC FAILURE. INHALATION:MAY CAUSE IRRI TATION TO RESPIRATORY TRACT. SKIN/EYES:MAY CAUSE IRRITATION WITH PERSISTENT CONJUNCTIVITIS.

Medical Cond Aggravated by Exposure:PERSONS WITH A HISTORY OF KIDNEY OR LIVER DISORDERS MAYBE AT INCREASED RISK FROM EXPOSURE.

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

First Aid:INHALATION: REMOVE TO FRESH AIR. CALL A PHYSICIAN IF DISCOMFORT PERSISTS. EYE: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES. CALL A PHYSICIAN. SKIN: WASH WITH PLENTY OF SOAP & WATER.REMOVE CONTAMINATED CLOTHING/SHOES. INGESTION: IF CONSCIOUS, GIVE 2 GLASSES OF WATER TO DRINK AND INDUCE VOMITING. GIVE NOTHING BY MOUTH IF UNCONSCIOUS. CALL A PHYSICIAN IMMEDIATELY.

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

Flash Point:NONE  
Autoignition Temp:Autoignition Temp Text:NONE  
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xtinguishing Media:USE CARBON DIOXIDE, FOAM, DRY CHEMICAL, OR WATER FOG.

Fire Fighting Procedures:FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE. USE WATER SPRAY TO COOL NEARBY CONTAINERS EXPOSED TO FIRE.

Unusual Fire/Explosion Hazard:AFTER WATER EVAPORATES, REMAINING MATERIAL WILL BURN.

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

Spill Release Procedures:SMALL SPILL: WIPE/SOAK UP WITH PAPER TOWEL OR INERT ABSORBANT. PUT IN DISPOSAL CONTAINER. FLUSH RESIDUE WITH WATER. LARGE SPILL: VENTILATE AREA. IF POSSIBLE, STOP LEAK. DIKE TO RETAIN RUN OFF. VACUUM UP FREE LIQUID. FLUSH RESIDUE WITH WATER.  
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER. WATER DILUTION RECOMMENDED.

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

Handling and Storage Precautions:STORE IN A COOL, DRY, WELL VENTILATED AREA. KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. PROTECT CONTAINERS FROM PHYSICAL DAMAGE.

Other Precautions:DO NOT TAKE INTERNALLY. DO NOT BREATHE MIST. AVOID PROLONGED OR REPEATED BREATHING OF VAPOR. AVOID CONTACT WITH EYES. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. FOR INDUSTRIAL USE ONLY.

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

Respiratory Protection:IF VENTILATION DOES NOT MAINTAIN INHALATION EXPOSURES BELOW PEL(TLV), USE NIOSH/MSHA APPROVED ORGANIC VAPOR CARTRIDGE AND DUST /MIST PRE-FILTER RESPIRATORS AS PER CURRENT 29 CFR 1910.134, INSTRUCTIONS/ WARNINGS AND NIOSH-RESPIRATOR SELECTION.

Ventilation:MECHANICAL (GENERAL) ROOM VENTILATION IS ADEQUATE IF USE IS ENCLOSED. LOCAL EXHAUST IS NEEDED IF VENTED INTO WORK AREA.

Protective Gloves:NEOPRENE, NITRILE, PVC OR NATURAL RUBBER

Eye Protection:SAFETY GOGGLES WITH OPTIONAL FACE SHIELD

Other Protective Equipment:EYE WASH STATION AND SAFETY SHOWER. INDUSTRIAL-TYPE WORK CLOTHING AND APRON AS REQUIRED.

Work

Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. DO NOT WEAR CONTAMINATED CLOTHING OR FOOTWEAR.

Supplemental Safety and Health

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

HCC:V5

Boiling Pt:=112.2C, 234.F

Melt/Freeze Pt:=-60.C, -76.F

Vapor Pres:11

Vapor Density:2.1

Spec Gravity:1.0886

Evaporation Rate & Reference:0.7(N-BUTYL ACETATE = 1)

Solubility in Water:COMPLETE

Appearance and Odor:CLEAR, COLORLESS LIQUID, CHARACTERISTIC SWEET ODOR

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

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZING AGENTS, STRONG ACIDS, AND STRONG BASES AT HIGH TEMPERATURES. REACTIVE WITH HYDROXYL COMPOUNDS.

Stability Condition to Avoid:NONE

Hazardous Decomposition Products:CARBON MONOXIDE, CARBON DIOXIDE AND OXIDES OF NITROGEN.

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

Waste Disposal Methods:DISPOSAL SHOULD BE MADE BY INCINERATION IN

ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. AT VERY LOW CONCENTRATIONS IN WATER, DISPOSE OF THIS MATERIAL IN A BIOLOGICAL WASTEWATER TREATMENT PLANT.

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