

UNION CARBIDE CHEMICALS AND PLASTICS CO INC -- ETHYLENE GLYCOL, INDUSTRIAL GRADE --
6810-00-006-4205

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

Product ID:ETHYLENE GLYCOL, INDUSTRIAL GRADE

MSDS Date:06/28/1999

FSC:6810

NIIN:00-006-4205

Status Code:A

MSDS Number: CJWXV

=== Responsible Party ===

Company Name:UNION CARBIDE CHEMICALS AND PLASTICS CO INC

Address:39 OLD RIDGEBURY RD

City:DANBURY

State:CT

ZIP:0

6817-0001

Country:US

Info Phone Num:203-794-2000

Emergency Phone Num:203-794-2000/800-568-4000

CAGE:0TAZ2

=== Contractor Identification ===

Company Name:LORHNETTE ASSOCIATES

Address:1630 E FRANCIS ST UNIT F

Box:City:ONTARIO

State:CA

ZIP:91761

Country:US

Phone:909-923-9788

Contract Num:SP0450-99-M-NE73

CAGE:1FDF8

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

===== Com

position/Information on Ingredients =====

Ingred Name:ETHYLENE GLYCOL
CAS:107-21-1
RTECS #:KW2975000
> Wt:99.
Other REC Limits:NONE RECOMMENDED
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:HARMFUL OR FATAL IF SWALLOWED.
INHALATION MAY CAUSE IRRITATION OF THE NOSE AND THROAT. RPOLO
NGED
OR REPEATED BREATHING OF VAPORS IS HARMFUL. EYES: CAUSES
IRRITATION. CHRONIC:KIDNEY AND CNS DAMAGE. CAU SES BIRTH DEFECTS IN
LABORATORY ANIMALS.
Explanation of Carcinogenicity:THIS COMPOUND CONTAINS NO INGREDIENTS AT
CONCENTRATIONS OF 0.1% OR GREATER THAT ARE CARCINOGENS OR SUSPECT
CARCINOGENS.
Effects of Overexposure:SWALLOWING-MAY CAUSE ABDOMINAL PAIN OR
DISCOMFORT, NAUSEA, VOMITING, DIZZINESS, BLURRED VISION,
IRRITABILITY, LUMBAR PAIN,OLIGURIA, UREMIA, AND CEN
TRAL NERVOUS
SYSTEM EFFECTS, INCLUDING IRREGULAR EYE MOVEMENTS, CONVULSIONS AND
COMA. CARDIAC FAILURE, PULMONARY EDEMA, AND SEVERE KIDNEY DAMAGE
MAY DEVELOP. MAY BE FATAL INHALATION-HEADACHE, NAUSEA,
VOMITING,HEADACHE,DIZZINESS IRREGULAR EYE MOVEMENT. EYE-STINGING,
EXCESS BLINKING AND TEAR PRODUCTION, WITH EXCESS REDNESS OF THE
CONJUNCTIVA.
Medical Cond Aggravated by Exposure:MAY AGGRAVATE AN EXISTING KIDNEY
DIDEASE.

===== First Aid Measures ==
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First Aid:SWALLOWING-IF CONSCIOUS, GIVE 2 GLASSES OF WATER, INDUCE
VOMITING UNDER SUPERVISION OF A DOCTOR. OBTAIN MEDICAL AID IMMED.
SKIN-REMOVE CONTAMINATED CLOTHING. WASH SKIN WITH SOAP & WATER,
OBTAIN MEDICA L. INHALATION-REMOVE TO FRESH AIR. OBTAIN MEDICAL
ATTENTION IF SYMPTOMS PERSISTS. EYE-FLUSH THOROUGHLY WITH WATER FOR
SEVERAL MINUTES. REMOVE CONTACT LENSES. GET MEDICAL HELP.

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

Flash Point Method:TCC

Flash Point:=116.1C, 241.F

Autoignition Temp:=400.C, 752.F

Lower Limits:3.2

Upper Limits:15.3

Extinguishing Media:EXTINGUISH FIRES- WATER SPRAY OR APPLY ALCOHOL-TYPE OR ALL PURPOSE FOAM BY MANUFACTUER'S RECOMMENDED TECHNIQUES FOR LARGE FIRES. CARBON DIOXIDE OR DRY CHEMICAL MEDIA FOR SMALL FIRES

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 & PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard:NONE SPECIFIED BY MANUFACTURER.

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

Spill Release Procedures:LARGE SPILLS SHOULD BE CONTAINED AND COLLECTED. SMALL SPILLS CAN BE COLLECTED OR MAY BE ABSORBED WITH APPROPRIATE LIQUID ABSORBING MATERIALS. ALL SPILL RESPONSE AND DISPOSAL SHOULD BE CARRIED OUT IN ACCORDANCE WITH FEDERAL, STATE, PROVINCIAL, AND LOCAL REQUIREMENTS. WEAR SUITABLE PROTECTIVE

EQUIPMENT. WEAR PERSONAL PROTECTIVE EQUIPMENT.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:KEEP CONTAINER CLOSED. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. DO NOT SWALLOW. DO NOT BREATHE MIST OR VAPOR. AVOID EYE CONTACT.

Other Precautions:DANGER!! HARMFUL OR FATAL IF SWALLOWED. DO NOT INHALE VAPORS OR MIST.

===== 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 MAY BE ADEQUATE.IF HANDLED AT AMBI

ENT TEMPERATURE OR IN COVERED EQUIPMENT.

Protective Gloves:POLYVINYL CHLORIDE COATED

Eye Protection:MONOGOGGLES OR FACE SHIELD

Other Protective Equipment:EYE BATH SAFETY SHOWER

Work Hygienic Practices:WASH HANDS THOROUGHLY WITH SOAP AND WATER
BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES.

Supplemental Safety and Health

NONE SPECIFIED BY MANUFACTURER.

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

HCC:V5

Boiling Pt:>197.C, 386.6F

Melt/Freeze Pt:=-13.C, 8.

6F

Decomp Temp:Decomp Text:NOT GIVEN

Vapor Pres:0.06 MMHG

Vapor Density:2.1

Spec Gravity:1.115 20C(H2O=1)

Evaporation Rate & Reference:0.01 (N-BUTYL ACETATE=1)

Solubility in Water:100%

Appearance and Odor:TRANSPARENT COLORLESS LIQUID, MILD SWEET ODOR.

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

Stability Indicator/Materials to Avoid:YES

AVOID STRONG ACIDS AND STRONG BASES AT ELEVATED TEMPERATURES. AVOID
CONTAMINATION WITH STRONG OXIDIZING AGENTS AND MATERIALS

REACTIVE

WITH HYDROXYL COMPOUNDS..

Stability Condition to Avoid:ELEVATED TEMPERATURES

Hazardous Decomposition Products:EXPLOSIVE DECOMPOSITION MAY OCCUR IF
COMBINED WITH STRONG ACIDS OR STRONG BASES AND SUBJECTED TO
ELEVATED TEMPERATURES. COMBUSTION/BURNING WILL PRODUCE OXIDES OF
CARBON.

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

Toxicological Information:EXPOSURE LIMITS FOR AERSOL = 100 MG/M3
CEILING ACGIH, FOR AEROSOL AND VPORS= 125 MG/M3 CEILING

OSHA-

VACATED; AEROSOL AND VAPORS = 50 PPM CEILING OSHA-VACATE, 100 MG/M3 CEILING UCC, 39.4 PPM CEILING UCC. PERORAL:MALE RAT LD50 = 8.57 G/KG, FOR FEMAL RAT LD50=4.92 G/KG. INHALATION: MIST FROM VAPOR EXPOSURE TIME 8H= 2.2 MG/L AT 170C, FOR FOG EQUIVALENT EXPOSURE TIME 8H= 1000 PPM. ETHYLENE GLYCOL HAS BEEN SHOWN TO PRODUCE DOSE-RELATED TERATGENIC EFFECTS IN RATS AND MICE WHEN GINVE BY GAVAGE OR IN DRINKING WATER AT HIGH CONCENTRATIONS (150-500 MG/KG/DAY)

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

Ecological:ECOTOXICITY TO FATHEAD MINNOW: LC50 96H >10,000 MG/L.
ECOTOXICITY FOR DAPHNIA LC50 48H >10,000 MG/L. ECOTOXICITY FOR BACTERIA IC50 >10,000 MG/L

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

Waste Disposal Methods:RECLAIM ETHYLENE GLYCOL WHEREVER POSSIBLE. INCINERATE IN A FURNANCE WHERE PERMITTED OR DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

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

Transport Information:NON-BULK: NOT REGULATED. BULK: PSN= OTHER REGULATED SUBSTANCES, LIQUID, NOS (ETHYLENE GLYCOL), 9, NA3082, III. (RQ=5,051 LBS).

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

SARA Title III Information:CERCLA SEC 302:THE FOLLOWING COMPONENTS OF THIS PRODUCT ARE SPECIFICALLY LISTED AS HAZARDOUS SUBSTANCES IN 40 CFR 302.4 AND ARE PRESENT AT LEVELS WHICH COULD REQUIRE REPORTING
:
ETHYLENE GLYCOL 107-21 -1 >= 99%; ACETIC ACID 64-19-7