SHELL OIL COMPANY -- ETHYLENE GLYCOL -- 9150-00-224-8729 ============ Product Identification ========================= Product ID:ETHYLENE GLYCOL MSDS Date:07/01/1979 FSC:9150 NIIN:00-224-8729 MSDS Number: BJMBS === Responsible Party === Company Name: SHELL OIL COMPANY Address: HEALTH, SAFETY AND ENVIRONMENT Box:4320 City:HOUSTON State:TX ZIP:77210 Country:US Info Phone Num:713-241-4819 Emergency Phone Num:713-473-9461 CAGE:54527 === Contractor Identification === Company Name: SHELL OIL CO **MPANY** Box:2463 City:HOUSTON State:TX ZIP:77210 Country:US Phone:800-231-6950 CAGE:54527 ======= Composition/Information on Ingredients ======== Ingred Name: ETHYLENE GLYCOL (SARA III) CAS:107-21-1 RTECS #: KW2975000 Other REC Limits: NONE SPECIFIED OSHA PEL:C 50 PPM

Fraction by Wt: 94%

ACGIH TLV:C 50 PPM, VAPOR; 9192

EPA Rpt Qty:1 LB DOT Rpt Qty:1 LB

Ingred Name:TRIETHANOLAMINE PHOSPHATE

CAS:10017-56-8 Fraction by Wt: 2.5%

Other REC Limits: NONE SPECIFIED

Ingred Name: SODIUM 2-MERCAP

TOBENZOTHIAZOLE CAS:2492-26-4

Fraction by Wt: 0.25%

Other REC Limits: NONE SPECIFIED

Ingred Name:WATER

CAS:7732-18-5

RTECS #:ZC0110000 Fraction by Wt: 2.5%

Other REC Limits: NONE SPECIFIED

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

LD50 LC50 Mixture: ACUTE ORAL LD50 (HUMAN) IS 1500 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:MAY CAUSE DIZZINESS, MALAISE, LUMBAR PAIN, UREMIA, AND CE

NTRAL NERVOUS SYSTEM DEPRESSION. MAY CAUSE EYE, SKIN & RESPIRATORY TRACT IRRITATION.

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

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. REM OVE 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.

Flash Point Method:TCC Flash Point:250F,121C

Autoignition Temp: Autoignition Temp Text: UNKNOW

Lower Limits:3.2

Extinguishing Media: USE WATER FOG, CARBON DIOXIDE, ALCOHOL FOAM, OR DRY CHEMICAL.

Fire Fighting Procedures:FIRE F

IGHTERS 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:FIRE OR EXCESSIVE HEAT MAY CAUSE PRODUCTION OF HAZARDOUS DECOMPOSITION PRODUCTS.

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

Spill Release Procedures:SMALL SPILL: WIPE/SOAK UP WITH PAPER TOWEL OR INERT ABSORBENT. PUT IN DISPOSAL CONTAINER. FLUSH RESIDUE WITH WATER. LAR

GE 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/ WA

RNINGS 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 PR

OCEDURES. DO NOT WEAR CONTAMINATED CLOTHING OR FOOTWEAR.

Supplemental Safety and Health

DO NOT TAKE INTERNALLY. DO NOT GET ON SKIN OR IN EYES. AVOID PROLONGED OR REPEATED BREATHING OF VAPOR. DO NOT BREATHE MISTS. WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING OR DRINKING OR SMOKING OR USING REST ROOM.

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

HCC:V5
Boiling Pt:B.P. Text:387F,197C
Vapor Pres:0.06 @68F
Vapor Density:2.1 AIR=1
Spec Gravity:1.118
Evapor
ation Rate & Description
Evapor
Evapor
Evapor
Spec Gravity: 1.118