

SHELL OIL COMPANY -- REFILL KIT M229 PART B -- 6665-00-859-2214

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

Product ID:REFILL KIT M229 PART B

MSDS Date:11/03/1988

FSC:6665

NIIN:00-859-2214

Kit Part:Y

MSDS Number: BXWCT

=== 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:713-241-4819/4141/2252 FAX
-6511

Emergency Phone Num:713-473-9461/800-424-9300(CHEMTREC)

Preparer's Name:J. C. WILLETT

CAGE:54527

=== Contractor Identification ===

Company Name:ENVIRONMENTAL TECHNOLOGIES GROUP INC

Address:1400 TAYLOR AVE

Box:9840

City:BALTIMORE

State:MD

ZIP:21284-9840

Country:US

Phone:301-321-5200

CAGE:23667

Company Name:SHELL OIL COMPANY

Address:Box:2463

City:HOUSTON

State:TX

ZIP:77210

Country:US

Phone:800-231-6950

CAGE:54527

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

Ingred N

ame:ETHYL ALCOHOL (ETHANOL)
CAS:64-17-5
RTECS #:KQ6300000
Fraction by Wt: 100%
Other REC Limits:NONE SPECIFIED
OSHA PEL:1000 PPM
ACGIH TLV:1000 PPM; 9495

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

LD50 LC50 Mixture:LD50 (ORAL RAT) IS 7060 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: MAY CAUSE IRRITATION OF EYES,
AND MUCOUS MEMBRANES. MAY CAUSE CENTRAL NER
VOUS SYSTEM DEPRESSION
IF INHALED OR INGESTED. CHRONIC: MAY CAUSE SKIN IRRITATION OR
DERMATITIS. MAY CAUSE LIVER DAMAGE.
Explanation of Carcinogenicity:NONE OF THE COMPOUNDS IN THIS PRODUCT IS
LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.
Effects of Overexposure:INHALATION/INGESTION: DROWSINESS, DIZZINESS,
HEADACHE, GIDDINESS, NAUSEA, VOMITING. EYES: REDNESS, TEARING,
BLURRED VISION. SKIN: REDNESS, RASH, DRY SKIN.
Medical Cond Aggravated by Exposure:PREEXISTING EYE, SKIN, AND

RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS
PRODUCT. FURTHER IMPAIRMENT OF LIVER FUNCTION MAY OCCUR IF
PREEXISTING LIVER DISORDERS EXIST.

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

First Aid:INHALATION: REMOVE TO FRESH AIR. GIVE MOUTH- TO-MOUTH
RESUSCITATION IF NOT BREATHING. GET MEDICAL ATTENTION IMMEDIATELY.
EYE: IMMEDIATELY FLUSH WITH RUNNING WATER FOR 15 MINUTES WHILE
HOLDING EYELID. GET MEDICAL ATTENTION IMMEDIATELY. SKIN
: WASH WITH
SOAP & WATER. REMOVE CONTAMINATED CLOTHING. INGESTION: DO NOT
INDUCE VOMITING. NOTHING BY MOUTH IF UNCONSCIOUS. GET MEDICAL
ATTENTION IMMEDIATELY.

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

Flash Point Method:TCC
Flash Point:56.0F,13.3C
Lower Limits:3.3%
Upper Limits:19.0%
Extinguishing Media:USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY
CHEMICAL.
Fire Fighting Procedures:WEAR FULL FIRE FIGHTING PROTECTIVE EQUIPMENT
AND A FULL FACED SELF

CONTAINED BREATHING APPARATUS. COOL FIRE

EXPOSED CONTAINERS WITH WATER SPRAY.

Unusual Fire/Explosion Hazard:COMBUSTION OR HEAT OF FIRE MAY PRODUCE
HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS.

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

Spill Release Procedures:NOTIFY SAFETY PERSONNEL OF SPILL/LEAK. PROVIDE
MAXIMUM EXPLOSION-PROOF VENTILATION. ELIMINATE ALL SOURCES OF
IGNITION. WEAR PROTECTIVE EQUIPMENT. CONSIDER WATER DILUTION.
ABSORB WITH INERT MATE

RIAL.

Neutralizing Agent:NOT APPLICABLE.

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

Handling and Storage Precautions:PROTECT CONTAINERS FROM PHYSICAL
DAMAGE. STORAGE AND USE CONDITIONS MUST BE SUITABLE FOR AN OSHA
CLASS IB FLAMMABLE LIQUID.

Other Precautions:MAKE FREQUENT CAREFUL LEAKAGE INSPECTIONS. ISOLATE
FROM OXIDEZERS, CHEMICALS CAPABLE OF SPONTANEOUS HEATING, MATERIALS
REACTING WITH AIR OR MOISTURE TO LIBERATE HEAT, IGNITION SOURCES
AND EXPLOS

IVES. KEEP OUT OF DIRECT SUN & AWAY FROM HEAT.

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

Respiratory Protection:IF VENTILATION DOES NOT MAINTAIN INHALATION
EXPOSURES BELOW PEL(TLV), USE NIOSH/MSHA APPROVED RESPIRATORS.
RESPIRATORS SHOULD BE SELECTED BASED ON THE FORM AND CONCENTRATION
OF CONTAMINANT IN AIR & IN ACCORDANCE WITH OSHA (29 CFR 1910.134).

Ventilation:USE BOTH GENERAL AND LOCAL NONSPARKING, EXPLOSION-PROOF
EXHAUST VENTILATION TO MAINTAIN AI

RBORNE LEVELS BELOW TLV/PEL.

Protective Gloves:WEAR IMPERVIOUS GLOVES

Eye Protection:SAFETY GLASSES/CHEMICAL SAFETY GOGGLES.

Other Protective Equipment:WEAR RUBBER BOOTS, APRONS, AND OTHER
APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT SUITABLE TO THE WORK
SITUATION.

Work Hygienic Practices:PRACTICE GOOD PERSONAL HYGIENE. KEEP MATERIAL
OFF CLOTHES AND EQUIPMENT. DO NOT SMOKE ANYWHERE NEAR WORK AREA.

Supplemental Safety and Health

MSDS IS FOR PART B OF A 3 PART REFILL KIT. PART B IS MANUFA

CTURED BY

SHELL OIL CO, MSDS FROM SHELL, CAGE # 54527. PART B IS ETHYL ALCOHOL. PART A IS POTASSIUM HYDROXIDE, PART C IS DIETHYL PHTHALATE. STORAGE AND TRANSPORTATION CODES BASED ON PART B (HIGHER IN HAZARD RANKING).

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

HCC:F2

Boiling Pt:B.P. Text:173F,78C

Melt/Freeze Pt:M.P/F.P Text:-173F,-114C

Vapor Pres:43.9 @68F

Vapor Density:1.6

Spec Gravity:0.79

Evaporation Rate & Reference:1.6 (N-BUTYL ACETATE=1)

Solubi

lity in Water:COMPLETE

Appearance and Odor:COLORLES, MOBILE LIQUID

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

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZING AGENTS

Stability Condition to Avoid:HIGH HEAT, OPEN FLAMES AND OTHER SOURCES OF IGNITION. DO NOT USE ALUMINUM CONTAINERS FOR STORAGE AT TEMPERATURES > 120F.

Hazardous Decomposition Products:CARBON MONOXIDE CAN FORM ON INCOMPLETE COMBUSTION.

===== Disposal Considerations ==

=====

Waste Disposal Methods:MATERIAL SHOULD BE RECLAIMED, RECYCLED OR INCINERATED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

Disclaimer (provided with this information by the compiling agencies):
This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing

this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.