Product ID: ISOPROPYL ALCOHOL

MSDS Date:11/04/1991

FSC:6810

NIIN:00-286-5435

MSDS Number: CCLQP === Responsible Party ===

Company Name: SHELL OIL COMPANY

Address: CORPORATE ENVIRONEMNTAL AFFAIRS

Box:4320

City:HOUSTON

State:TX ZIP:77210 Country:US

Info Phone Num:713-241-2252

Emergency Phone Num:713-473-945

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CAGE:SHELL

=== Contractor Identification ===

Company Name: HOC INDUSTRIES, INC

Address:3511 N. OHIO

Box:2609 City:WICHITA State:KS

ZIP:67219 Country:US

Phone:316-838-4663

CAGE:0A9L8

Company Name: SHELL OIL COMPANY PRODUCT SAFETY AND COMPLIANCE

Address:P.O. BOX 4320

Box:4320

City:HOUSTON

State:TX ZIP:77210

Phone:713-241-2252 /713-241-4819

CAGE:SHELL

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

Ingred Name: ISOPROPYL ALCOHOL (SARA 313)

CAS:67-63-0

RTECS #:NT8050000

Fractio

n by Wt: 100%

Other REC Limits: NONE SPECIFIED

OSHA PEL:400 PPM

ACGIH TLV:400 PPM/500STEL;9596

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

LD50 LC50 Mixture:ORAL LD50 (RAT) = 5840 MG/KG Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:ACUTE: OVEREXPOSURE MAY LEAD TO CENTRAL NERVOUS SYSTEM DEPRESSION, LEADING TO HEADACHES AND DIZZINESS. EYE: MAY LEAD TO IRRITATION AND WILL

INJURE EYE TISSUE

IF NOT REMOVED PROMPTLY. SKIN: MAY LEAD TO DERMATITIS. INGESTION: MAY LEAD TO VOMITING. CHRONIC: PROLONGED SKIN CONTACT MAY CAUSE DERMATITIS.

Explanation of Carcinogenicity:THIS COMPOUND CONTAINS NO INGREDIENTS AT CONCENTRATIONS OF 0.1% OR GREATER THAT ARE CARCINOGENS OR SUSPECT CARCINOGENS.

Effects of Overexposure:OVEREXPOSURE MAY LEAD TO DIZZINESS, HEADACHES, DERMATITIS AND EYE IRRITATION. HIGH VAPOR CONCENTRATIONS ARE ANESTHETIC AND MAY HAVE OTHE

R CENTRAL NERVOUS SYSTEM EFFECTS.

Medical Cond Aggravated by Exposure:PERSONS WITH SKIN, HEART, RESPIRATORY, OR ANY OTHER MEDICAL CONDITION SHOULD USE CAUTION WHEN HANDLING OR USING THIS PRODUCT.

First Aid:SKIN: IMMEDIATELY FLUSH WITH SOAP AND WATER. GET MEDICAL ATTENTION IF NECESSARY. INHALATION: IMMEDIATELY REMOVE VICTIUM TO FRESH AIR. GIVE CPR IF BREATHING IS STOPPED. GET MEDICAL ATTENTION. EYE: IMME DI

ATELY FLUSH WITH WATER FOR 15 MINUTES.GET MEDICAL ATTENTION. INGESTION: GET PROMPT MEDICAL ATTENTION. DO NOT INDUCE VOMITING, KEEP AT REST.

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

Flash Point Method:TCC Flash Point:=11.7C, 53.F

Lower Limits:2.0 Upper Limits:12.0

Extinguishing Media:WATER FOG, "ALCOHOL" FOAM, DRY CHEMICAL OR CO2. Fire Fighting Procedures:CLEAR FIRE AREA OF UNPROTECTED PERSONNEL. DO NOT ENTER CONFINED AREA W/OUT FULL BUNKER GEAR AND NIOSH

SCBA. COOL FIRE EXPOSED CONTAINERS WITH WATER. Unusual Fire/Explosion Hazard:CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH CAN CAUSE RUPTURE. COOL WITH WATER.
========= Accidental Release Measures ===========
Spill Release Procedures:MINOR: ABSORB MATERIAL WITH CLAY, VERMICULITE, OR SIMILAR ABSORBENT MATERIAL. PLACE IN DISPOSAL CONTAINERS. MAJOR: DIKE & CONTAIN SPILL. ELIMINATE SOURCES OF IGNITION. SHUT OFF LEAKS. REMOVE LIQUID BY VACUUM OR ABSORBENT. FLUSH RESIDUE WITHWATER.  Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.
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Handling and Storage Precautions:USE ONLY IN WELL VENTILATED WORK AREA. KEEP CONTAINERS CLOSED WHEN NOT IN USE. FLAMMABLE LIQUID; EMPTY CONTAINERS CAN CONTAIN LIQUID/VAPOR RESIDUE.  Other Precautions:DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXOPSE  SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC  ELECTRICITY, OR OTHER SOURCES OF IGNITION. EXPLOSION HAZARD. EMPTY DRUMS SHOULD BE C OMPLETELY DRAINED, BUNGED & DISPOSED OF.
====== Exposure Controls/Personal Protection ========
Respiratory Protection:USE NIOSH/MSHA APPROVED RESPIRATOR. AIR-SUPPLIED OR FILTERING TYPE WITH ORGANIC VAPOR CARTRIDGES ARE RECOMMENDED. Ventilation:LOCAL AND MECHANICAL EXHAUST RECOMMENDED. AVOID OPEN ELECTRICAL SOURCES NEAR PRODUCT VAPOR A
REAS. Protective Gloves:NEOPRENE, NITRILE, OR POLYVINYL ALCOHOL Eye Protection:USE CHEMICAL SAFETY GOGGLES & FACESHIELD Other Protective Equipment:SAFETY SHOES, EYE WASH STATION & SAFETY SHOWER.
Work Hygienic Practices:DO NOT TAKE INTERNALLY. AVOID SKIN CONTACT. WASH SKIN AFTER USING PRODUCT. DO NOT EAT, DRINK OR SMOKE IN WORK AREA.
Supplemental Safety and Health NONE SPECIFIED BY MANUFACTURER.
========= Physical/Chemical Properties ==========
HCC:F2 Boiling Pt:=

82.2C, 180.F Melt/Freeze Pt:=-88.3C, -127.F Vapor Pres:33 Vapor Density:2.1 Spec Gravity:0.79 Evaporation Rate & Reference: 1.4 N-BUTYL ACETATE Solubility in Water: COMPLETE Appearance and Odor: COLORLESS, MOBIL LIQUID, MILD ODOR Percent Volatiles by Volume:100 ========= Stability and Reactivity Data ============= Stability Indicator/Materials to Avoid:YES STRONG OXIDIZING AGENTS, ALUMINUM EQUIPMENT FOR STORAGE AND HANDLING. Stability Condition to Avoid: HEAT, SPARKS, FLAME AND CON TACT WITH STRONG OXIDIZING AGENTS. KEEP TEMPS. BELOW 120F AND AWAY FROM ALUMINUM PRODUCTS. Hazardous Decomposition Products: CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION. ======= Disposal Considerations ============ Waste Disposal Methods: DISPOSE OF ALL WASTE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. INCINERATION IS RECOMMENDED. Disclaimer (provided with this information by the compiling agencies): Th of Defense. The United States of America in no manner whatsoever,

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