

SHELL CHEMICALS CANADA LIMITED -- I.P.A. 99% -- 6810-00-983-8551

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

Product ID:I.P.A. 99%
MSDS Date:09/10/1997
FSC:6810
NIIN:00-983-8551
Status Code:A
MSDS Number: CJDSX
=== Responsible Party ===
Company Name:SHELL CHEMICALS CANADA LIMITED
Address:400-4TH AVE S.W.
Box:4280C
City:CALGARY,ALBERTA T2T 5Z5
State:AB
Country:CA
Info Phone Num:800-661-7378
Emergency Phon
e Num:800-661-7378/403-691-2638
Resp. Party Other MSDS Num.:721-100
Preparer's Name:TOXICOLOGY & SAFETY DEPT
CAGE:TO031

=== 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
Contract Num:SP0450-99-M-NF07
CAGE:0A9L8
Company Name:SHELL CHEMICALS CANADA LIMITED
Address:400-4TH AVE S.W.
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City:CALGARY,ALBERTA T2T 5Z5
State:AB
Country:CA
Phone:800-661-7378
Contract Num:SP0450-99-M-C534
CA

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Composition/Information on Ingredients
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Ingred Name:IPA
CAS:67-63-0
RTECS #:NT8050000
= Wt:100.
OSHA PEL:980 MG/M3;400 PPM
ACGIH TLV:983 MG/M3;400 PPM
ACGIH STEL:1230 MG/M3;500 PPM

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Hazards Identification
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Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:PROLONGED AND REPEATED CONTACT WITH
SKIN CAN CAUSE DEFATTING
AND DRYING OF THE SKIN RESULTING IN SKIN
IRRITATION AND DERMATITIS. EXPOSURE TO HIGH VAPOR CONCENTRATIONS
MAY CAUSE EYE AND RESPIRATORY TRA CT IRRITATION, HEADACHE,
DIZZINESS, NAUSEA, INCOORDINATION, DROWSINESS AND LOSS OF
CONSCIOUSNESS. ALTHOUGH INGESTION IS UNLIKELY, LIQUID WOULD
IRRITATE UPPER DIGESTIVE TRACT IF SWALLOWED.
Effects of Overexposure:INGESTION OF THIS PRODUCT MAY CAUSE HEADACHE,
DIZZINESS, FATIGUE AND CENTRAL NERVOUS SYSTEM DEPRESSION.
Medical Cond Aggrava
ted by Exposure:PRE-EXISTING EYE, SKIN AND
RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS
PRODUCT.

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First Aid Measures
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First Aid:EYES-FLUSH WITH WATER FOR 15 MIN. OBTAIN MEDICAL ATTENTION AS
SOON AS POSSIBLE AFTER FIRST AID HAS BEEN INITIATED & COMPLETED.
INHALATION-REMOVE FROM FUTHER EXPOSURE AND RESTORE BREATHING, IF
REQUIRED . OBTAIN MEDICAL ATTENTION. INGESTION-DONOT INDUCE
VOMITING. DO NOT GIVE ANYTHING
BY MOUTH IF UNCONSCIOUS. GUARD
AGAINST ASPIRATION INTO LUNGS BY TURNING INDIVIDUAL ON THEIR LEFT
SIDE. IF VOMITING OCC URS SPONTANEOUSLY KEEP HEAD BELOW HIPS TO
PREVENT ASPIRATION OF LIQUID INTO THELUNGS. OBTAIN MEDICAL
ATTENTION IMMEDIATELY. SKIN-START RINSING AND REMOVE CONTAMINATED
CLOTHES WHILE RISING. IF IRRITATI ON PERSISTS OBTAIN MEDICAL
ATTENTION.

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Fire Fighting Measures
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Flash Point Method:TCC
Flash Point:=14.C, 57.2F

Autoignition Temp:=399.C, 750.2F

Lower Limits:2.0

Upper Limits:12.0

Extinguishing Media:DRY CHEMICAL, CO2, ALCOHOL FOAM, WATER FOG

Fire Fighting Procedures:DO NOT ENTER CONFINED FIRE SPACE WITHOUT ADEQUATE PROTECTIVE CLOTHING AND APPROVED POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS. USE H2O TO COOL FIRE EXPOSED CONT WHICH MAY EXPLODE. VAPORS M AY BUILD UP IN CONT CAUSING THEM TO RUPTURE COOL WITH H2O AND STAY AWAY FROM ENDS OF CONT DUE TO EXPLOSIVE POTENTIAL.

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

Spill Release Procedures:ISSUE WARNING "FLAMMABLE". ELIMINATE ALL IGNITION SOURCES. ISOLATE HAZARD AREA AND RESTRICT ACCESS. TRY TO WORK UP WIND OF SPILL. AVOID DIRECT CONTACT WITH MATERIAL. REMOVE SATURATED CLOTHING IMMEDIAT ELY YO AVOID FLAMMABILITY HAZARD. WEAR APPROPRIATE BREATHING APPARATUS (IF APPLICABLE) & PROTECTIVE CLOTHING. STOP LEAK ONLY IF SAFE TO DO SO. DIKE/CONTAIN LAND SPILLS; CONTAIN WATER SPILLS BY BOOMING.

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

Handling and Storage Precautions:FLAMMABLE. STORE IN A COOL, DRY, WELL VENTILATED AREA AWAY FROM HEAT AND IGNITION SOURCES. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILIAR OPERATIONS ON OR NEAR CONTAINERS. VAPOURS MAY ACCUMULATE A ND TRAVEL TO DISTANT IGNITION SOURCE ANDFLASHBACK. USE EXPLOSION PROOF VENTILATION.

Other Precautions:EMPTY CONTAINERS MAY CONTAIN HAZARDOUS PRODUCT RESIDUES.

FIXED EQUIPMENT AS WELL AS TRANSFER CONTAINERS AND EQUIPMENT SHOULD BE GROUNDED TO PREVENT ACCUMULATION OR STATIC CHARGE. HOT SURFACES MAY BE S UFFICIENT TO IGNITE LIQUID EVEN IN THE ABSENCE OF SPARKS OR FLAMES. EXTINGUISH PILOT LIGHTS, CIGARETTES.

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

Respiratory Protection:IF EXPOSURE EXCEEDS OCCUPATIONAL EXPOSURE LIMITS, WEAR A NIOSH-APPROVED RESPIRATOR. USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR

AND AIR-PURIFYING RESPIRATOR FOR

ORGANIC VAPOURS. PROPER EQUIPMENT FOR HIGH CONCENTRATIONS INCLUDES AN ATMOSPHERE SUPPLIED, POSITIVE PRESSURE DEMAND, SELF-CONTAINED OR AIRLINE BREATHING APPARATUS.

Ventilation:MECHANICAL VENTILATION IS RECOMMENDED FOR ALL INDOOR SITUATIONS TO CONTROL FUGITIVE EMISSIONS. ELECTRICAL AND MECHANICAL SHOULD BE EXPLOSION PROOF.

Protective Gloves:IMPERVIOUS GLOVES (VITON, NITRILE) SHOULD BE WORN.

Eye Protection:CHEMICAL SAFETY GLASSES SHOULD BE WORN

Other Protective Equipment:PROVIDE AN EYEWASH STATION IN THE AREA. SAFETY SHOWER SHOULD BE AVAILABLE FOR EMERGENCY USE.IMPERVIOUS CLOTHING (APRON,COVERALLS)SHOULD ALSO BE WORN IN CONFINED WORKSPACES.

Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING.

Supplemental Safety and Health

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

HCC:F2

Boiling Pt:B.P. Text:82-83C

Melt/Freeze Pt:M.P/F.P Text:-86- -89C

Vapor Pres:>33.0@20C MMHG

Vapor Density:2.1 AIR=1

Spec

Gravity:0.79 H2O=1

pH:NOT AVAILABLE

Viscosity:NOT AVAILABLE

Evaporation Rate & Reference:1.44 NBUAC=1

Solubility in Water:COMPLETE

Appearance and Odor:MOBILE LIQUID WITH COLORLESS, CLEAR ALCOHOL ODOUR.

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

Stability Indicator/Materials to Avoid:YES

AVOID CONTACT WITH STRONG OXIDIZING AGENTS AND ACIDS. ALUMINUM AT HIGH TEMPERATURES.

Stability Condition to Avoid:AVOID EXCESS HEAT, OPEN FLAMES AND ALL IGNITION SOURCES.

Ha

zardous Decomposition Products:VAPOUR FORMS A FLAMMABLE/EXPLOSIVE MIXTURE WITH AIR BETWEEN UPPER AND LOWER FLAMMABLE LIMITS. CARBON MONOXIDE AND CARBON DIOXIDE ARE PRODUCED ON COMBUSTION.

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

Toxicological Information:ISOPROPANOL TESTED NEGATIVE IN TWO MUTAGENICITY ASSAYS; THE MOUSE MICRONUCLEUS AND CHINESE HAMSTER OVARY ASSAYS. ISOPROPANOL, WHEN ADMINISTERED ORALLY TO RATS AND RABBITS, PRODUCES REDUCED FETAL BODY WEIGHTS IN RATS ONLY AT DOSES WHICH RESULTS IN TREATMENT RELATED MATERNAL DEATH.

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

Ecological:DO NOT ALLOW PRODUCT OR RUNOFF FROM FIRE CONTROL TO ENTER STORM OR SANITARY SEWERS, LAKES, RIVERS, STREAMS, OR PUBLIC WATERWAYS. MAY BE HARMFUL TO AQUATIC LIFE. AQUATIC TOXICITY RATING (TLM 96)=10 TO 100 PPM. NO FOOD CHAIN CONCENTRATION POTENTIAL.

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

Waste Disposal Methods:WASTE MANAGEMENT PRIORITIES ARE: 1.RECYCLING, 2. ENERGY RECOVERY, 3. INCINERATION, 4. DISPOSAL AT A LICENSED WASTE DISPOSAL FACILITY. DO NOT ATTEMPT TO COMBUST WASTE ON-SITE. INCINERATION AT A LICENSE D WASTE DISPOSAL SITE WITH APPROVAL OF ENVIRONMENTAL AUTHORITY.

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

Transport Information:SHIPPING NAME: ISOPROPANOL, CLASS 3, FLAMMABLE LIQUID, PG II, UN NUMBER 1219.

===== Other Information =====

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