

SHELL CHEMICALS CANADA LIMITED -- I.P.A. 99 ISOPROPYL ALCOHOL -- 6810-00-855-6160  
===== Product Identification =====

Product ID:I.P.A. 99 ISOPROPYL ALCOHOL  
MSDS Date:09/10/1997  
FSC:6810  
NIIN:00-855-6160  
MSDS Number: CJLTF  
=== Responsible Party ===  
Company Name:SHELL CHEMICALS CANADA LIMITED  
Address:400 4TH AVE SW SECTION C  
Box:4280  
City:CALGARY, ALBERTA CANADA  
Info Phone Num:403-691-3111  
Em  
ergency Phone Num:613-996-6666  
Resp. Party Other MSDS Num.:721-100  
Preparer's Name:TOXI & SAFETY SECTION  
CAGE:36131  
=== 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 CHEMICALS CANADA LIMITED  
Address:400 4TH AVE SW STATION C  
Box:4280  
City:CALGARY, ALBERTA CANADA  
Phone:403-691-2638/800-567-8860  
CAGE:36131

===== Composition/Information on Ingredient  
s =====

Ingred Name:ISOPROPYL ALCOHOL (SARA III)  
CAS:67-63-0  
RTECS #:NT8050000  
= Wt:100.  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:400 PPM/500 STEL  
ACGIH TLV:400 PPM/500STEL;9293

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

LD50 LC50 Mixture:ORAL LD50 (RAT) IS 5840 MG/KG  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:YES OSHA:NO  
Health Hazards Acute and Chronic:EYE-MODERATELY IRRITATING. SKIN  
-MILDLY IR

IRITATING. INHALATION-MAY CAUSE MILD IRRITATION TO THE NOSE, THROAT & RESPIRATORY TRACT & MAY RESULT IN CENTRAL NERVOUS SYSTEM DEPRESSION. INGESTION-IRRITATING TO THE GASTROINTESTINALTRACT, CAUSING ABDOMINAL PAIN & VOMITING, SOMETIMES BLOODY. CHRONIC:DERMATITIS.

Explanation of Carcinogenicity:ISOPROPANOL IS CLASSIFIED IARC-3(INSUFFICIENT EVIDENCE-HUMAN).

Effects of Overexposure:EARLY TO MODERATE CNS DEPRESSION MAY BE EVIDENCED BY GIDDINESS, HEADACHE, DIZZINESS, FATIGUE AN

D NAUSEA; IN EXTREME CASES, UNCONSCIOUSNESS, RESPIRATORY DEPRESSION. LIVER DAMAGE MAY BE EVIDENCED BY LOS S OF APPETITE, JAUNDICE AND SOMETIMES PAIN IN THE UPPER ABDOMEN ON THE RIGHT SIDE.

Medical Cond Aggravated by Exposure:PREEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

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

First Aid:EYE-FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENT ION. SKIN-FLUSH WITH WATER. INHALATION-REMOVE VICTIM TO FRESH AIR & PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATT ENTION. INGESTION-DO NOT GIVE LIQUIDS IF VICTIM IS UNCONSCIOUS OR DROWSY. DO NOT INDUCE VOMITING, IF VOMITING OCCURS KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION INTO LUNGS. SEEK MEDICAL HELP IMMEDIATEL Y.

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

Flash Point Method:TCC

Flash Point:=14.C, 57.2F

Lower Limits:2

Upper Limits:12

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

Fire Fighting Procedures:WARNING. FLAMMABLE LIQUID. CLEAR FIRE AREA OF PERSONNEL. DO NOT ENTER CONFINED SPACE WITHOUT FULL BUNKER GEAR, INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SCBA. USE WATER TO COOL FIRE EXPOSED CONTAIN ERS.

Unusual Fire/Explosion Hazard:CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CO

CONTAINER RUPTURE.

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

Spill Release Procedures:WARNING. FLAMMABLE. ELIMINATE ALL IGNITION SOURCES. HANDLING EQUIPMENT MUST BE GROUNDED TO PREVENT SPARKING. SMALL SPILLTAKE UP WITH ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS; SEAL TIGHTLY FOR PROPER DISPOSAL. DIKE AND CONTAIN LAND SPILLS, RECOVER BY VACUUM TRUCKS. FLUSH RESIDUE WITH WATER AND ABSORB IN SAND OR VERMICULI, SAVE FOR DISPOSAL.

Neutralizing

Agent:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

Handling and Storage Precautions:DO NOT STORE OR HANDLE IN ALUMINUM EQUIPMENT AT TEMPERATURES ABOVE 120F. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION.

Other Precautions:CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS. DO NOT PRESSURIZE DRUM CONTAINERS TO EMPTY THEM.

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

Respiratory Protection:IF EXPOSURE EXCEEDS OCCUPATIONAL EXPOSURE LIMITS, USE A NIOSH APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

Ventilation:USE MECHANICAL EXPLOSION PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS.

Protective G

loves:CHEMICAL RESISTANT GLOVES.

Eye Protection:WEAR CHEMICAL GOGGLES.

Other Protective Equipment:WEAR CHEMICAL RESISTANT CLOTHING TO MINIMIZE SKIN CONTACT. EYE WASH FOUNTAIN & SAFETY SHOWER SHOULD BE AVAILABLE.

Work Hygienic Practices:WASH WITH SOAP & WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. LAUNDRY CONTAMINATED CLOTHING.

Supplemental Safety and Health

NOTE TO PHYSICIAN IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSION OR UNCONSCIOUSNESS OCCURS BEFORE

EMESIS, GASTRIC LAVAGE SHOULD BE  
CONSIDERED FOLLOWING INTUBATION WITH A CUFFED ENDOTRACHEAL TUBE.  
HEMODIALYSIS SHOULD BE CONSIDERED IN SEVERE ACUTE INTOXICATIONS.

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

HCC:F2  
Boiling Pt:=82.2C, 180.F  
B.P. Text:82-83C  
Melt/Freeze Pt:=-86.C, -122.8F  
M.P/F.P Text:-86 TO -89  
Vapor Pres:33 MMHG @20C  
Vapor Density:2.1  
Spec Gravity:0.79  
Evaporation Rate & Reference:1.4 (N-BUTYL ACETATE=1)  
Solubility in Water:COMPLETE  
Appearance and Odor:COLORLESS, MOBILE LIQUID, ALCOHOL ODOR.  
Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES  
AVOID CONTACT WITH STRONG OXIDIZING AGENTS. DO NOT STORE OR HANDLE IN  
ALUMINUM EQUIPMENT AT TEMPERATURES ABOVE 120F.  
Stability Condition to Avoid:AVOID HEAT, SPARKS, FLAME.  
Hazardous Decomposition Products:CARBON MONOXIDE AND UNIDENTIFIED  
ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

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

Toxicological Information:ORAL RAT LD50 = 4720 MG/KG; INHALATION RAT  
LC50 = 12000 PPM/8 HRS; DERMAL RABBIT LD50= 12900 MG/KG

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

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

FOOD CHAIN CONCENTRATION POTENTIAL.  
BIODEGRADABILITY= RAPID VOLATILIZATION.

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

Waste Disposal Methods:RECYCLE, INCINERATE OR DISPOSE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

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

Transport Information:CANADIAN TDG DESCRIPTION (ROAD & RAIL): SHIPPING NAME: ISOPROPANOL. CLASS DESCRIPTION: CLASS 3, FLAMMABLE LIQUID, PACKING GROUP II. U  
N NUMBER: 1219.

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

SARA Title III Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.  
Federal Regulatory Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.  
State Regulatory Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

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