

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: CKCZJ
=== Responsible Party ===
Company Name:SHELL CHEMICALS CANADA LIMITED
Address:400 4TH AVE SW STATION C
Box:4280
City:CALGARY, ALBERTA CANADA
Info Phone Num:403-691-2638/800-567-8860
Emergency Ph
one Num:800-661-7378/613-996-6666
Resp. Party Other MSDS Num.:721-100
Preparer's Name:NOT PROVIDED.
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
Contract Num:SP0450-00-M-D710
CAGE:0A9L8
Company Name:SHELL CHEMICALS CANADA LIMITED
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===== Composition/

Information on Ingredients =====

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

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

LD50 LC50 Mixture:LD50 (ORAL, RAT) 4720 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:EXPOSURE MAY OCCUR VIA INHALATION,
SKIN ABSORPTION A

ND SKIN OR EYE CONTACT. THIS PRODUCT IS IRRITATING

TO THE EYE BUT IS NOT PRIMARY SKIN IRRITANT AFTER SHORT EXPOSURE
AND IS NOT A SKIN SENSITIZER. 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 TRACT IRRITATION, HEADACHE,
DIZZINESS, NAUSEA, INCOORDINATION, DROWSINESS AND LOSS OF
CONSCIOUSNESS. ALTHOUGH INGESTION IS UNLI

KELY, LIQUID WOULD

IRRITATE UPPER DIGESTIVE TRACT. MAY CAUSE DIZZINESS AND CENTRAL
NERVOUS SYSTEM DEPRESSION.

Explanation of Carcinogenicity:NONE

Effects of Overexposure:THIS PRODUCT IS IRRITATING TO THE EYE BUT IS

NOT PRIMARY SKIN IRRITANT AFTER SHORT EXPOSURE AND IS NOT A SKIN
SENSITIZER. 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 A

ND

RESPIRATORY TRACT IRRITATION, HEADACHE, DIZZINESS, NAUSEA,
INCOORDINATION, DROWSINESS AND LOSS OF CONSCIOUSNESS. ALTHOUGH
INGESTION IS UNLIKELY, LIQUID WOULD IRRITATE UPPER DIGESTIVE TRACT.
MAY CAUSE DIZZINESS AND CENTRAL NERVOUS SYSTEM DEPRESSION.

Medical Cond Aggravated by Exposure:PRE-EXISTING EYE, SKIN AND

RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS
PRODUCT.

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

First Aid:EYES: FLUS

H WITH WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. OBTAIN MEDICAL ATTENTION AS SOON AS POSSIBLE AFTER FIRST AID HAS BEEN INITIATED AND COMPLETED. INHALATION: REMOVE VICTIM FROM FURTHER EXPOSURE AND RESTORE BREATHING, IF REQUIRED. OBTAIN MEDICAL ATTENTION. INGESTED: DO NOT INDUCE VOMITING. DO NOT GIVE ANYTHING BY MOUTH, IF UNCONSCIOUS. GUARD AGAINST ASPIRATION INTO LUNGS BY TURNING ON LEFT SIDE. OBTAIN IMMEDIATE MEDICAL ATTENTION. SKIN: START RINSING AND REMOVING CONTAMINATED CLOTHING WHILE RINSING. WASH CONTAMINATED SKIN WITH SOAP AND WATER FOR 15 MINUTES. GET MEDICAL ATTENTION IF IRRITATION OCCURS/PERSISTS

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

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, CARBON DIOXIDE, ALCOHOL FOAM, WATER FOG. USE WATER TO COOL FIRE-EXPOSED CONTAINERS.
Fire Fighting Procedures:DO NOT ENTER CONFINED FIRE SPACE WITHOUT ADEQUATE PROTECTIVE CLOTHING AND AN APPROVED POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS. VAPORS MAY BUILD UP IN CONTAINERS CAUSING THEM TO RUPTURE. CONTAINER MAY EXPLODE IN HEAT OF FIRE. FIGHT FIRE FROM MAXIMUM DISTANCE. STAY AWAY FROM ENDS OF CONTAINERS.
Unusual Fire/Explosion Hazard:NOT PROVIDED.

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

Spill Release Procedures:ELIMINATE SOURCES OF IGNITION . ISOLATE HAZARD AREA AND RESTRICT ACCESS. WORK UPWIND. AVOID CONTACT WITH MATERIAL. WEAR APPROPRIATE BREATHING APPARATUS AND PROTECTIVE CLOTHING. STOP LEAK IF SAFE TO DO SO. DIKE AND CONTAIN SPILLS. CONTAIN RUNOFF. REMOVE LARGE SPILLS BY MECHANICAL MEANS AND CONTAINERIZE. ABSORB RESIDUE OR SMALL SPILLS WITH SAND OR EARTH. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE.
Neutralizing Agent:NOT RELEVANT.

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

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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 SIMILAR OPERATIONS ON OR NEAR CONTAINERS. CAN ATTACK ALUMINUM AT ELEVATED TEMPERATURE. USE EXPLOSION-PROOF VENTILATION TO PREVENT VAPOR ACCUMULATION.

Other Precautions:EMPTY CONTAINERS MAY CONTAIN HAZARDOUS PRODUCT RESIDUES. FIXED EQUIPMENT AS WELL AS TRANSFER CONTAINERS AND EQUIPMENT SHOULD BE GROUNDED TO PREVENT ACCUMULATION OF STATIC CHARGE. AVOID BREATHING VAPORS AND PROLONGED OR REPEATED CONTACT WITH SKIN. LAUNDRY CONTAMINATED CLOTHING PRIOR TO REUSE.

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

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

Eye Protection:CHEMICAL SAFETY GLASSES SHOULD BE WORN.

Other Protective Equipment:PROVIDE AN EYEWASH STATION IN THE AREA.

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FETY SHOWER SHOULD BE AVAILABLE FOR EMERGENCY USE. IMPERVIOUS CLOTHING (APRON, COVERALLS) SHOULD BE WORN IN CONFINED WORKSPACES.

Work Hygienic Practices:NOT PROVIDED.

Supplemental Safety and Health

NONE

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

HCC:F2

NRC/State Lic Num:NOT RELEVANT.

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

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

Decomp Temp:Decomp Text:NOT PROVIDED.

Vapor Pres:>33.0@20C MMHG

Vapor Density:2.1 AIR=1

Spec Gravity:0.79 H2O=1

pH:NO

T AVAILABLE

Viscosity:NOT AVAILABLE

Evaporation Rate & Reference:1.44 NBUAC=1

Solubility in Water:COMPLETE

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

Percent Volatiles by Volume:100

Corrosion Rate:NOT RELEVANT.

===== 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.

Hazardous 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 WEIGHT IN RATS ONLY AT DOSES WHICH RESULT IN TREATMENT RELATED MATERNAL DEATHS AND PRODUCES NO INDICATION OF FETAL EFFECTS IN RABBITS EVEN AT DOSE WHICH RESULTED IN SIGNIFIGANT MATERNAL MORTAILITY. IS OPROPANOL PRODUCES NO EVIDENCE OF DEVELOPMENTAL NEUROTOXICITY. RAT INHAL LC50 12000 PPM 8 HRS RABBIT DERMAL LD50 > 12900 MG/KG

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

Ecological:DO NOT ALLOW PRODUCT OR RUN-OFF FROM FIRE CONTROL TO ENTER

STORM OR SANITARY SEWRS, LAKES, RIVERS, STREAMS OR PUBLIC WATERWAYS. BLOCK OFF DRAINS AND DITCHES. PROVINCIAL REGULATIONS REQUIRE AND FEDERAL REGULATIONS MAY REQUIRE THAT ENVIRONMENTAL AGENCIES BE NOTIFIED OF A SPILL INCIDENT. SPILL AREA MUST BE CLEANED AND RETURNED TO ORIGINAL CONDITION OR TO THE SATISFACTION OF AUTHORITIES. MAY BE HARMFUL TO AQUATIC LIFE. AQUATIC TOXICITY RATING (TLM 96)=10 TP 100 PPM. NO FOOD CHAIN CONCENTRATION

POTENTIAL. BIODEGRADABILITY: BIODEGRADABLE (FAST): RAPID
VOLATILIZATION.

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

Waste Disposal Methods:WASTE MANAGEMENT PRIORITIES (DEPENDING ON
VOLUMES AND CONCENTRATION): 1-RECYCLE/REPROCESS; 2-ENERGY RECOVERY;
3-INCINERATION; 4-DISPOSAL AT A LICENSED WASTE DISPOSAL FACILITY.
DO NOT ATTEMPT TO COMBUS T WASTE ON-SITE. INCINERATE AT A LICENSED
WASTE DISPOSAL SITE WITH APPROVAL OF ENVIRONMENTAL AUTHORI TY.

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

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

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

SARA Title III Information:NOT PROVIDED.
Federal Regulatory Information:NOT PROVIDED.
State Regulatory Information:NOT PROVIDED.

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

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g agencies):

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