

SHELL CHEMICALS CANADA LIMITED -- I.P.A. 99%

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MSDS Safety Information
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FSC: 6810
NIIN: 00-286-5435
MSDS Date: 09/10/1997
MSDS Num: CJDSW
Product ID: I.P.A. 99%
MFN: 01
Responsible Party
Cage: TO031
Name: SHELL CHEMICALS CANADA LIMITED
Address: 400-4TH AVE S.W.
Box: 4280C
City: CALGARY,ALB
ERTA T2T 5Z5 AB 00000
Country: CA
Info Phone Number: 800-661-7378
Emergency Phone Number: 800-661-7378/403-691-2638
Resp. Party Other MSDS No.: 721-100

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Item Description Information
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Item Manager: S9G
Item Name: ISOPROPYL ALCOHOL,TECHNICAL
Specification Number: TT-I-735A
Type/Grade/Class: GRADE A
Unit of Issue: GL
UI Container Qty: 6
Type of Container: CAN

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Ingredients
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Name: *** PROPRIETARY ***

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Health Hazards Data
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Route Of Entry Inds - Inhalation: YES
Skin: YES
Ingestion: NO
Carcinogenicity Inds - NTP: NO
IARC: NO
OSHA: NO
Effects of Exposure: PROLONGED AND REPEATED CONTACT WITH SKIN CAN CAUSE
DEFATTING AND DRYING OF THE S

KIN 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 UNLIKELY, LIQUID WOULD IRRITATE UPPER DIGESTIVE TRACT IF SWALLOWED.

Signs And Symptions Of Overexposure: INGESTION OF THIS PRODUCT MAY CAUSE HEADACHE, DIZZINESS, FATIGUE 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: 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-DO NOT INDUCE VOMITING. DO NOT GIVE ANYTHING BY MOUTH IF UNCONSCIOUS. GUARD AGAINST ASPIRATION INTO LUNGS BY TURNING INDIVIDUAL ON THEIR LEFT

SIDE. IF VOMITING OC CURS SPONTANEOUSLY KEEP

HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. OBTAIN MEDICAL ATTENTION IMMEDIATELY. SKIN-START RINSING AND REMOVE CONTAMINATED CLOTHES WHILE RISING. IF IRRITA TION PERSISTS OBTAIN MEDICAL ATTENTION.

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Handling and Disposal

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Spill Release Procedures: ISSUE WARNING "FLAMMABLE". ELIMINATE ALL IGNITION SOURCES. ISOLATE HA

ZARD AREA AND RESTRICT ACCESS. TRY TO WORK UP WIND OF

SPILL. AVOID DIRECT CONTACT WITH MATERIAL. REMOVE SATURATED CLOTHING IMMEDIATELY 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.

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.

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 AND FLASHBACK. USE EXPLOSION PROOF VENTILATION.

Other Precautions: EMPTY CONTAIN

ERS 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 SUFFICIENT TO IGNITE LIQUID EVEN IN THE ABSENCE OF SPARKS OR FLAMES.

EXTINGUISH PILOT LIGHTS, CIGARETTES.

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Fire and Explosion Hazard Information
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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 MAY 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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Control Measures
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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: MEC

HANICAL 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.

Work Hygienic Practices: WASH THOROUGHLY AFTER HANDLING.

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Physical/Chemical Properties
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HCC: F2

B.P. Text: 82-83C

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.

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Reactivity Data
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Stability Indicator: YES

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

Materials To Avoid: AVOID CONTACT WITH STRONG OXIDIZING AGENTS AND ACIDS. ALUMINUM AT HIGH TEMPERATURES.

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.

Hazardous Polymerization Indicator:
NO

Conditions To Avoid Polymerization: NONE
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Toxicological Information

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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.

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Ecological Information

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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.

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MSDS Transport Information

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

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Regulatory Information

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Other Information

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Other Information: FLAMMABLE LIQUID.
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Transportation Information

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Responsible Party Cage: TO031

Trans ID NO: 140691

Product ID: I.P.A. 99%

MSDS Prepared Date: 09/10/1997

Review Date: 04/02/1999

MFN: 1

Multiple KIT Number: 0

Unit Of Issue: GL

Container QTY: 6

Type Of Container: CAN

Additional Data: LTD QTY EXEMPT FROM LABEL & PLACARD; UNLESS OFFERED FOR
TRANSPORT BY AIR. 1-PKG GRP I:NOT OVER 0.5 L ; 2-PKG GRP II:NOT OVER 1.0 L;

3-PKG GRP III:NOT OVER 5.0 L; PACKED

IN STRONG OUTER PACKAGINGS; GROSS WEIGHT

< 66 LBS. ORM-D:ABOVE PLUS NO SHIPPING PAPER.

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Detail DOT Information

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DOT PSN Code: HWY

DOT Proper Shipping Name: ISOPROPANOL OR ISOPROPYL ALCOHOL

Hazard Class: 3

UN ID Num: UN1219

DOT Packaging Group: II

Label: FLAMMABLE LIQUID

Special Provision: T1

Packaging Exception: 150

Non Bulk Pack: 202

Bulk Pack: 242

Max Qty Pass: 5 L

Max Qty Cargo:

60 L

Vessel Stow Req: B

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Detail IMO Information

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IMO PSN Code: ITA

IMO Proper Shipping Name: ISOPROPANOL

IMDG Page Number: 3244

UN Number: 1219

UN Hazard Class: 3.2

IMO Packaging Group: II

Subsidiary Risk Label: -

EMS Number: 3-06

MED First Aid Guide NUM: 305

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Detail IATA Information

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IATA PSN Code: ONH
IATA UN ID Num: 1219
IATA Proper Shipping Name: ISOPROPANOL
IATA UN Class: 3
IATA Label: FLAMMABLE LIQUID
UN Packing Group: II
Packing Note Passenger: 305
Max Quant Pass: 5L
Max Quant Cargo: 60L
Packaging Note Cargo: 307

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Detail AFI Information

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AFI PSN Code: ONH
AFI Proper Shipping Name: ISOPROPANOL
AFI Hazard Class: 3
AFI UN ID NUM: UN1219
AFI Packing Group
: II
Special Provisions: P5
Back Pack Reference: A7.3

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HAZCOM Label

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Product ID: I.P.A. 99%
Cage: TO031
Assigned IND: Y
Company Name: SHELL CHEMICALS CANADA LIMITED
Street: 400-4TH AVE S.W.
PO Box: 4280C
City: CALGARY,ALBERTA T2T 5Z5 AB
Zipcode: 00000
Country: CA
Health Emergency Phone: 800-661-7378/403-691-2638
Label Required IND: Y
Date Of Label Review: 04/02/1999
Status Code: A
Orig
ination Code: F
Chronic Hazard IND: Y
Eye Protection IND: YES
Skin Protection IND: YES
Signal Word: WARNING
Respiratory Protection IND: YES
Health Hazard: Moderate
Contact Hazard: Slight
Fire Hazard: Moderate
Reactivity Hazard: None
Hazard And Precautions: 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
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DIGESTIVE TRACT IF SWALLOWED.

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