

SHELL CHEMICALS CANADA LIM I -- 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: CJKMD
Product ID: I.P.A. 99
MFN: 01
Responsible Party
Cage: 36131
Name: SHELL CHEMICALS CANADA LIMITED
Address: 400 4TH AVE SW SECTION C
Box: 4280
City: CALG
ARY, ALBERTA CANADA NK 00000
Info Phone Number: 403-691-3111
Emergency Phone Number: 800-661-7378
Resp. Party Other MSDS No.: 721-100
Proprietary Ind: Y
Review Ind: Y
Published: Y

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Contractor Summary
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Cage: 0A9L8
Name: HOC INDUSTRIES, INC
Address: 3511 N. OHIO
Box: 2609
City: WICHITA KS 67219
Phone: 316-838-4663
Contract Number: SP0450-99-M-C620
Cage: 36131
Name: SHELL CHEMICALS CANADA
LIMITED
Address: 400 4TH AVE SW STATION C
Box: 4280
City: CALGARY, ALBERTA CANADA NK 00000
Phone: 403-691-2638/800-567-8860
Cage: 86961
Name: SHELL CHEMICAL COMPANY A DIV. OF SHELL OIL CO.
Address: 1 SHELL PLAZA
Box: 2463
City: HOUSTON TX 77001
Phone: 713-473-9461
Cage: TO031
Name: SHELL CHEMICALS CANADA LIMITED
Address: 400-4TH AVE S.W.
Box: 4280C
City: CALGARY, ALBERTA T2T 5Z5 AB 00000
Country: CA
Phone: 800-661-7378
Cage: SHELL
Name: SHELL OIL COMPANY PRODUCT SAFETY AND COMPLIANCE
Address: P

.O. BOX 4320
Box: 4320
City: HOUSTON TX 77210
Phone: 713-241-2252 /713-241-4819

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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: YES
Carcinogenicity Inds - NTP: NO
IARC: NO
OSHA: NO

Effects of Exposure: THIS PRODUCT IS IRRITATING TO THE EYE BUT IS NOT A PRIMARY SKIN IRRITANT AFTER EXPOSURE TO SHORT DURATION AND IS NOT A SKIN SENSITIZER.

Explanation Of C

arcinogenicity: ISOPROPANOL TESTED NEGATIVE IN TWO MUTAGENICITY

ASSAYS; THE MOUSE MICRONUCLEUS AND CHINESE HAMSTER OVARY ASSAYS.

Signs And Symptions Of Overexposure: PROLONGED AND REPEATED CONTACT WITH SKIN CAN CAUSE DEFATTING AND DRYING OF THE SKIN RESULTING IN SKIN IRRITATION AND DERMATITIS. EXPOSURE TO HIGH VAPOUR CONCENTRATIONS MAY CAUSE EYE & RESPIRATORY TRAC T IRRITATION, HEADACHE, DIZZINESS, NAUSEA, INCOORDINATION, DROWSINESS & LOSS OF CONSCIOUSNESS. ALTHOUGH INGESTION I

S UNLIKELY,

LIQUID WOULD IRRITATE UPPER DIGESTIVE TRACT IF SWALLOWED. INGESTION OF TH IS PRODUCT MAY CAUSE HEADACHE, DIZZINESS, FATIGUE & 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 WHILE HOLDING EYELIDS OPEN. OBTAIN MEDICAL AID AS SOON AS POSSIBLE. INHALATION-REMOVE VICTIM FROM EXPOSURE & RESTORE BREATHING, IF

REQUIRED. OBTAIN MEDICAL AID. INGESTION-DO NOT INDUCE VOMITING. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GUARD AGAINST ASPIRATION INTO LUNGS BY TURNING INDIVIDUAL ON TO THEIR LEFT SIDE. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS. OBTAIN MEDICAL AID IMMEDIATELY. SKIN-RINSE & REMOVE CONTAMINATED CLOTHES WHILE RINSING. WASH SKIN WITH MILD SOAP & WATER FOR 15 MIN. IF IRRITATION OCCURS/PERSISTS OBTAIN MEDICAL AID.

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Handling and Disposal

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Spill Release Procedures: ISSUE WARNING "FLAMMABLE". ELIMINATE ALL IGNITION SOURCES. ISOLATE HAZARD AREA & RESTRICT ACCESS. TRY TO WORK UPWIND OF SPILL. AVOID DIRECT CONTACT WITH MATERIAL. WEAR PROTECTIVE APPARATUS & CLOTHING (IF NEEDED). STOP LEAK ONLY IF IT IS SAFE TO DO SO. DIKE & CONTAIN LAND SPILLS; CONTAIN WATER SPILLS BY BOOMING. USE WATER FOG TO KNOCK DOWN VAPOURS; CONTAIN RUNNOFF.

Waste Disposal Methods: WASTE MANAGEMENT PRIORITIES ARE: 1. RECYCLE (REPROCESS), 2. ENERGY RECOVERY (CEMENT KILNS, THERMAL POWER GENERATION), 3. INCINERATION, 4. DISPOSAL AT A LICENSED WASTE DISPOSAL FACILITY. DO NOT ATTEMPT TO COMBUST WASTE ON-SITE. INCINERATION AT A LICENSED WASTE DISPOSAL SITE WITH APPROVAL OF ENVIRONMENTAL AUTHORITY.

Handling And Storage Precautions: FLAMMABLE. STORE IN A COOL, DRY, WELL VENTILATED AREA, AWAY FROM HEAT/IGNITION SOURCES. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON/NEAR CONTAINERS. VAPORS MAY ACCUMULATE & TRAVEL TO DISTANT IGNITION SOURCES & FLASHBACK. USE EXPLOSION-PROOF VENTILATION TO PREVENT 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. HOT SURFACES MAY BE SUFFICIENT TO IGNITE LIQUID EVEN IN THE ABSENCE OF SPARKS OR FLAMES.

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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, CARBON DIOXIDE, ALCOHOL FOAM AND WATER FOG.
Fire Fighting Procedures: DO NOT ENTER CONFINED FIRE SPACE WITHOUT ADEQUATE PROTECTIVE CLOTHING AND AN APPROVED POSITIVE PRESSURE SELF-CONTAINING BREATHING APPARATUS.

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BREATHING APPARATUS.. EVACUATE HAZARD AREA.USE WATER TO COOL FIRE EXPOSED CONTAINERS. CONTAINERS MAY EXPLODE IN HEAT OF FIRE. VAPOURS MAY CONCENTRATE IN CONFINED AREAS. CONTAINERS EXPOSED TO INTENSE

Unusual Fire/Explosion Hazard: HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOUR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

FIGHT FIRE FROM MAXIMUM DISTANCE.

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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 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 EMISSION.

Protective Gloves: IMPERVIOUS GLOVES(VITON, NITRILE)

Eye Protection: CHEMICAL SAFETY GOGGLES

Other Protective Equipment: PROVIDE AN EYEWASH STATION IN THE AREA. IMPERVIOUS CLOTHING (APRON, COVERALLS) SHOULD ALSO BE WORN IN CONFINED WORKSPACES OR WHERE THE RISK OF SKIN EXPOSURE IS MUCH HIGHER. SAFETY SHOWERS.

Supplemental Safety and Health:

DURING A FIRE ALWAYS STAY AWAY FROM ENDS OF CONTAINERS DUE TO EXPLOSIVE POTENTIAL. SENSITIVE TO STATIC DISCHARGE.

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Physical/Chemical Properties
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HCC: F2

Boiling Point: >82.C, 179.6F

B.P. Text: 82-83 C

Melt/Freeze Pt: =-86.C, -122.8F

M.P/F.P Text: -86 - -89

Vapor Pres: >33.0 @ 20C

Vapor Density: 2.1

Spec Gravity: 0.79

Evaporation Rate & Reference: 1.44 (NBAUC=1)

Solubility i

n Water: COMPLETE

Appearance and Odor: MOBILE LIQUID, COLOURLESS CLEAR ALCOHOL ODOUR.

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Reactivity Data
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Stability Indicator: YES

Stability Condition To Avoid: AVOID EXCESSIVE 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

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Toxicological Information
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Toxicological Information: ISOPROPANOL, WHEN ADMINISTERED ORALLY TO RATS AND RABBITS, PRODUCES REDUCED FETAL BODY WEIGHTS IN RATS ONLY AT DOSES WHICH RESULT IN TREATMENT RELATED MATERNAL DEATHS AND PRODUCES NO INDICATION OF FETAL EFFECTS IN RABBITS EVEN AT DOSES WHICH RESULTED IN SIGNIFICANT MATERNAL MORTALITY. ISOPROPANOL PRODUCES NO EVIDENCE OF DEVELOPMENTAL NEUROTOXICITY.

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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. BLOCK OFF DRAINS AND DITCHES. PROVINCIAL REGULATIONS REQUIRE AND FEDERAL REGULATIONS MAY REQUIRE THAT ENVIRONMENTAL AND/OR OTHER AGENCIES BE NOTIFIED OF A SPILL INCIDENT. SPILL AREA MUST BE CLEANED AND RESTORED TO ORIGINAL CONDITION OR TO THE SATISFACTION OF AUTHORITIES. 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: CANADIAN TDG DESCRIPTION (ROAD & RAIL): SHIPPING NAME: ISOPROPANOL, CLASS 3, FLAMMABLE LIQUID, PACKING GROUP II, UN NUMBER 1219.

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Regulatory Information
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Other Information
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Other Information: BIODEGRADABILITY: BIODEGRADABLE

(FAST). RAPID

VOLATILIZATION. NOTE TO PHYSICIAN: IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSION OR UNCONSCIOUSNESS OCCURS BEFORE VOMITING, GASTRIC LAVAGE WITH A CUF FED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED. METABOLISM OF ISOPROPANOL FORMS ACETONE, WHICH MAY BE DETECTED IN THE URINE AND EXPIRED AIR. IN CONTRAST TO DIBETIC ACIDOSIS, ACIDOSIS WILL OCCUR IN THE ABS ENCE OF HYPERGLYCEMIA. HEMODIALYSIS SHOULD BE CONSIDERED IN SEVERE ACUTE INTOXICATIONS.

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Transportation Information

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Responsible Party Cage: 36131

Trans ID NO: 147264

Product ID: I.P.A. 99

MSDS Prepared Date: 09/10/1997

Review Date: 08/14/1999

MFN: 1

Net Unit Weight: 6.6 LBS

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

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: 36131
Company Name: SHELL CHEMICALS CANADA LIMITED
Street: 400 4TH AVE SW STATION C
PO Box: 4280
City: CALGARY, ALBERTA CANADA NK
Zipcode: 00000
Health Emergency Phone: 800-661-7378
Label Required IND: Y
Date Of Label Review: 08/14/1999
Status

Code: A
Year Procured: 1999
Origination Code: F
Chronic Hazard IND: Y
Eye Protection IND: YES
Skin Protection IND: YES
Signal Word: DANGER
Respiratory Protection IND: YES
Health Hazard: Moderate
Contact Hazard: Slight
Fire Hazard: Severe
Reactivity Hazard: None

Hazard And Precautions: THIS PRODUCT IS IRRITATING TO THE EYE BUT IS NOT A
PRIMARY SKIN IRRITANT AFTER EXPOSURE TO SHORT DURATION AND IS NOT A SKIN
SENSITIZER.

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