

# *Chem-Impex International Inc.*

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## SAFETY DATA SHEET

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### SECTION 1. CHEMICAL IDENTIFICATION

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CATALOG #:	33819
NAME:	DL-1,2-Isopropylidenglycerol
SYNONYMS:	(±)-2,2-Dimethyl-1,3-dioxolane-4-methanol Solketal
24 HOUR EMERGENCY TELEPHONE:	(800) 535-5053(USA) 352-323-3500 (INTERNATIONAL)
TO REQUEST AN MSDS:	(800) 869-9290
CUSTOMER SERVICE:	(630) 766-2112

### SECTION 2. HAZARDS IDENTIFICATION

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#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

**GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)**  
FLAMMABLE LIQUIDS (CATEGORY 4), H227  
EYE IRRITATION (CATEGORY 2A), H319

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS  
PICTOGRAM**



SIGNAL WORD                      WARNING

**HAZARD STATEMENT(S)**

H227                                  COMBUSTIBLE LIQUID.  
H319                                  CAUSES SERIOUS EYE IRRITATION.

**PRECAUTIONARY STATEMENT(S)**

P210                                  KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. NO SMOKING.  
P264                                  WASH SKIN THOROUGHLY AFTER HANDLING.  
P280                                  WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE PROTECTION/ FACE PROTECTION.  
P305 + P351 + P338              IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING.  
P337 + P313                        IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/ ATTENTION.  
P370 + P378                        IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR ALCOHOL-RESISTANT FOAM FOR EXTINCTION.  
P403 + P235                        STORE IN A WELL-VENTILATED PLACE. KEEP COOL.  
P501                                  DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.

**HAZARDS NOT OTHERWISE CLASSIFIED (HNO) OR NOT COVERED BY GHS**                      NONE

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

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MF:                                      C<sub>6</sub>H<sub>12</sub>O<sub>3</sub>  
MW:                                      132.16  
CAS-NO.                                100-79-8  
PURITY:                                99.5 - 100.0% (GC)

**HAZARDOUS COMPONENTS**

COMPONENT	CLASSIFICATION	CONCENTRATION
<b>DL-1,2-Isopropylidenglycerol</b>		
	FLAM. LIQ. 4; EYE IRRIT. 2A; H227, H319	<= 100%

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FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

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## **SECTION 4. FIRST-AID MEASURES**

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### **DESCRIPTION OF FIRST AID MEASURES**

<b>GENERAL ADVICE</b>	CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF DANGEROUS AREA.
<b>IF INHALED</b>	IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.
<b>IN CASE OF SKIN CONTACT</b>	WASH OFF WITH SOAP AND PLENTY OF WATER. CONSULT A PHYSICIAN.
<b>IN CASE OF EYE CONTACT</b>	RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND CONSULT A PHYSICIAN.
<b>IF SWALLOWED</b>	DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.
<b>MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED</b>	THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11.
<b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b>	NO DATA AVAILABLE

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## **SECTION 5. FIRE AND EXPLOSION DATA**

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### **EXTINGUISHING MEDIA**

<b>SUITABLE EXTINGUISHING MEDIA</b>	SUITABLE EXTINGUISHING MEDIA USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE.
	UNSUITABLE EXTINGUISHING MEDIA DO NOT USE WATER JET.

<b>SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE</b>	CARBON OXIDES
<b>ADVICE FOR FIREFIGHTERS</b>	WEAR SELF-CONTAINED BREATHING APPARATUS FOR FIREFIGHTING IF NECESSARY.
<b>FURTHER INFORMATION</b>	USE WATER SPRAY TO COOL UNOPENED CONTAINERS.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

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<b>PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES</b>	USE PERSONAL PROTECTIVE EQUIPMENT. AVOID BREATHING VAPOURS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. REMOVE ALL SOURCES OF IGNITION. BEWARE OF VAPOURS ACCUMULATING TO FORM EXPLOSIVE CONCENTRATIONS. VAPOURS CAN ACCUMULATE IN LOW AREAS. FOR PERSONAL PROTECTION SEE SECTION 8.
<b>ENVIRONMENTAL PRECAUTIONS</b>	PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.
<b>METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP</b>	CONTAIN SPILLAGE, AND THEN COLLECT WITH NON-COMBUSTIBLE ABSORBENT MATERIAL, (E.G. SAND, EARTH, DIATOMACEOUS EARTH, VERMICULITE) AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL / NATIONAL REGULATIONS (SEE SECTION 13). KEEP IN SUITABLE, CLOSED CONTAINERS FOR DISPOSAL.
<b>REFERENCE TO OTHER SECTIONS</b>	FOR DISPOSAL SEE SECTION 13.

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## **SECTION 7. HANDLING AND STORAGE**

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<b>PRECAUTIONS FOR SAFE HANDLING</b>	AVOID CONTACT WITH SKIN AND EYES. AVOID INHALATION OF VAPOUR OR MIST. KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING. TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE. FOR PRECAUTIONS SEE SECTION 2.2.
<b>CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES</b>	KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE.  Store at 0 - 8 °C

**SPECIFIC END USE(S)**

APART FROM THE USES MENTIONED IN SECTION 1.2  
NO OTHER SPECIFIC USES ARE STIPULATED.

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**CONTROL PARAMETERS**

**COMPONENTS WITH  
WORKPLACE CONTROL  
PARAMETERS**

CONTAINS NO SUBSTANCES WITH OCCUPATIONAL  
EXPOSURE LIMIT VALUES.

**EXPOSURE CONTROLS**

**APPROPRIATE  
ENGINEERING  
CONTROLS**

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL  
HYGIENE AND SAFETY PRACTICE. WASH HANDS  
BEFORE BREAKS AND AT THE END OF WORKDAY.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYE/FACE PROTECTION**

SAFETY GLASSES WITH SIDE-SHIELDS CONFORMING  
TO EN166 USE EQUIPMENT FOR EYE PROTECTION  
TESTED AND APPROVED UNDER APPROPRIATE  
GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN  
166(EU).

**SKIN PROTECTION**

HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE'S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.

**FULL CONTACT**

MATERIAL: NITRILE RUBBER  
MINIMUM LAYER THICKNESS: 0.4 MM  
BREAK THROUGH TIME: 480 MIN  
MATERIAL TESTED:CAMATRIL (KCL 730, SIZE M)

**SPLASH CONTACT**

MATERIAL: NITRILE RUBBER  
MINIMUM LAYER THICKNESS: 0.11 MM  
BREAK THROUGH TIME: 30 MIN  
MATERIAL TESTED:DERMATRIL (KCL 740, SIZE M)

IF USED IN SOLUTION, OR MIXED WITH OTHER SUBSTANCES, AND UNDER CONDITIONS WHICH DIFFER FROM EN 374, CONTACT THE SUPPLIER OF THE CE APPROVED GLOVES. THIS RECOMMENDATION IS ADVISORY ONLY AND MUST BE EVALUATED BY AN INDUSTRIAL HYGIENIST AND SAFETY OFFICER FAMILIAR WITH THE SPECIFIC SITUATION OF ANTICIPATED USE BY OUR CUSTOMERS. IT SHOULD NOT BE CONSTRUED AS OFFERING AN APPROVAL FOR ANY SPECIFIC USE SCENARIO.

**BODY PROTECTION**

IMPERVIOUS CLOTHING, THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

**RESPIRATORY PROTECTION**

WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULLFACE RESPIRATOR WITH MULTI-PURPOSE COMBINATION (US) OR TYPE ABEK (EN 14387) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).

**CONTROL OF ENVIRONMENTAL EXPOSURE**

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

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**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Clear, colorless liquid
ODOUR	SLIGHT
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING POINT/FREEZING POINT	
INITIAL BOILING POINT AND BOILING RANGE	188 - 189 °C
FLASH POINT	91 °C
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	NO DATA AVAILABLE
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	NO DATA AVAILABLE
VAPOUR PRESSURE	0.32 - < 0.36 HPA AT 20 °C
VAPOUR DENSITY	NO DATA AVAILABLE
RELATIVE DENSITY	1.07
WATER SOLUBILITY	172 G/L AT 20 °C - OECD TEST GUIDELINE 105 - SOLUBLE
PARTITION COEFFICIENT: N- OCTANOL/WATER	LOG POW: -0.6 AT 20 °C
AUTO-IGNITION TEMPERATURE	390 °C AT 1,005.6 - 1,007.4 HPA
DECOMPOSITION TEMPERATURE	NO DATA AVAILABLE
VISCOSITY	NO DATA AVAILABLE
EXPLOSIVE PROPERTIES	NO DATA AVAILABLE
OXIDIZING PROPERTIES	NO DATA AVAILABLE

**OTHER SAFETY INFORMATION**

DISSOCIATION CONSTANT	6.52 AT 20 °C
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**SECTION 10. STABILITY AND REACTIVITY**

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<b>REACTIVITY</b>	NO DATA AVAILABLE
<b>CHEMICAL STABILITY</b>	STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
<b>POSSIBILITY OF HAZARDOUS REACTIONS</b>	NO DATA AVAILABLE
<b>CONDITIONS TO AVOID</b>	HEAT, FLAMES AND SPARKS.

**INCOMPATIBLE  
MATERIALS**

ACIDS, STRONG OXIDIZING AGENTS

**HAZARDOUS  
DECOMPOSITION  
PRODUCTS**

HAZARDOUS DECOMPOSITION PRODUCTS FORMED  
UNDER FIRE CONDITIONS. - CARBON OXIDES  
OTHER DECOMPOSITION PRODUCTS - NO DATA  
AVAILABLE  
IN THE EVENT OF FIRE: SEE SECTION 5

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**SECTION 11. TOXICOLOGICAL INFORMATION**

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**INFORMATION ON TOXICOLOGICAL EFFECTS**

**ACUTE TOXICITY**

LD50 ORAL - RAT - 7,000 MG/KG

INHALATION: NO DATA AVAILABLE

LD50 DERMAL - RAT - MALE AND FEMALE - > 2,000  
MG/KG  
(OECD TEST GUIDELINE 402)

NO DATA AVAILABLE

**SKIN  
CORROSION/IRRITATION**

SKIN - RABBIT  
RESULT: NO SKIN IRRITATION - 4 H  
(OECD TEST GUIDELINE 404)

**SERIOUS EYE  
DAMAGE/EYE IRRITATION**

EYES - RABBIT  
RESULT: IRRITATING TO EYES. - 24 H  
(OECD TEST GUIDELINE 405)

**RESPIRATORY OR SKIN  
SENSITISATION**

IN VIVO ASSAY - GUINEA PIG  
RESULT: DOES NOT CAUSE SKIN SENSITISATION.  
(OECD TEST GUIDELINE 406)

**GERM CELL  
MUTAGENICITY**

AMES TEST  
S. TYPHIMURIUM  
RESULT: NEGATIVE  
OECD TEST GUIDELINE 474  
MOUSE - MALE  
RESULT: NEGATIVE

**CARCINOGENICITY**

IARC:

NO COMPONENT OF THIS PRODUCT PRESENT AT  
LEVELS GREATER THAN OR EQUAL TO 0.1% IS  
IDENTIFIED AS PROBABLE, POSSIBLE OR  
CONFIRMED HUMAN CARCINOGEN BY IARC.

NTP:

NO COMPONENT OF THIS PRODUCT PRESENT AT  
LEVELS GREATER THAN OR EQUAL TO 0.1% IS  
IDENTIFIED AS A KNOWN OR ANTICIPATED  
CARCINOGEN BY NTP.



OSHA: NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS ON OSHA S LIST OF REGULATED CARCINOGENS.

**REPRODUCTIVE TOXICITY** NO DATA AVAILABLE

**SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE** NO DATA AVAILABLE

**SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE** NO DATA AVAILABLE

**ASPIRATION HAZARD** NO DATA AVAILABLE

**ADDITIONAL INFORMATION** REPEATED DOSE TOXICITY - RAT - MALE AND FEMALE - ORAL - LOWEST OBSERVED ADVERSE EFFECT LEVEL - 1,000 MG/KG

RTECS: JI0400000

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

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## SECTION 12. ECOLOGICAL INFORMATION

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### TOXICITY

TOXICITY TO FISH FLOW-THROUGH TEST LC50 - PIMEPHALES PROMELAS (FATHEAD MINNOW) - 16.7 G/L - 96 H

TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES STATIC TEST EC50 - DAPHNIA MAGNA (WATER FLEA) - > 96 MG/L - 48 H (OECD TEST GUIDELINE 202)

TOXICITY TO ALGAE STATIC TEST EC50 - PSEUDOKIRCHNERIELLA SUBCAPITATA - > 92 MG/L - 72 H (OECD TEST GUIDELINE 201)

TOXICITY TO BACTERIA RESPIRATION INHIBITION EC50 - ACTIVATED SLUDGE - > 1,000 MG/L - 3 H (OECD TEST GUIDELINE 209)

### PERSISTENCE AND DEGRADABILITY

BIODEGRADABILITY AEROBIC - EXPOSURE TIME 28 D  
RESULT: 25 % - NOT READILY BIODEGRADABLE.  
(OECD TEST GUIDELINE 302B)

**BIOACCUMULATIVE POTENTIAL** NO DATA AVAILABLE

<b>MOBILITY IN SOIL</b>	NO DATA AVAILABLE
<b>RESULTS OF PBT AND VPVB ASSESSMENT</b>	PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED.
<b>OTHER ADVERSE EFFECTS</b>	NO DATA AVAILABLE

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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**WASTE TREATMENT METHODS**

<b>PRODUCT</b>	CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL. OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY. THIS COMBUSTIBLE MATERIAL MAY BE BURNED IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.
<b>CONTAMINATED PACKAGING</b>	DISPOSE OF AS UNUSED PRODUCT.

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**SECTION 14. TRANSPORT INFORMATION**

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<b>DOT (US)</b>	
PROPER SHIPPING NAME:	COMBUSTIBLE LIQUID, N.O.S. (2,2-DIMETHYL-1,3-DIOXYLANE-4-METHANOL)
NA-NUMBER:	1993
CLASS:	NONE
PACKING GROUP:	III
REPORTABLE QUANTITY (RQ):	
POISON INHALATION HAZARD:	NO
<b>IMDG</b>	NOT DANGEROUS GOODS
<b>IATA</b>	NOT DANGEROUS GOODS

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**SECTION 15. REGULATORY INFORMATION**

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<b>SARA 302 COMPONENTS</b>	NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.	
<b>SARA 313 COMPONENTS</b>	THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DEMINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.	
<b>SARA 311/312 HAZARDS</b>	FIRE HAZARD, ACUTE HEALTH HAZARD	
<b>MASSACHUSETTS RIGHT TO KNOW COMPONENTS</b>	NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT.	
<b>PENNSYLVANIA RIGHT TO KNOW COMPONENTS</b>	CAS-NO.	REVISION DATE
DL-1,2-Isopropylidenglycerol	100-79-8	
<b>NEW JERSEY RIGHT TO KNOW COMPONENTS</b>	CAS-NO.	REVISION DATE
DL-1,2-Isopropylidenglycerol	100-79-8	

## SECTION 16. OTHER INFORMATION

### FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.

H227	COMBUSTIBLE LIQUID.
H319	CAUSES SERIOUS EYE IRRITATION.

### MSDS LEGEND

MW:	MOLECULAR WEIGHT
MF:	MOLECULAR FORMULA
VOC:	VOLATILE ORGANIC COMPOUNDS
ACGIH:	AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGINISTS
CAS:	CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER
OSHA:	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PEL:	PERMISSIBLE EXPOSURE LIMIT (OSHA)
TLV:	THRESHOLD LIMIT VALUE (ACGIH)

### IMPORTANT:

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