



# THE DOW CHEMICAL COMPANY **MATERIAL SAFETY DATA SHEET**



**Product Name:** Isopropanol, Anhydrous, USP Grade  
**MSDS#:** 1194

**Effective Date:** 09/01/2004  
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Dow (hereinafter, and for purposes of this MSDS only, refers to The Dow Chemical Company and to Dow Chemical Canada Inc.) encourages and expects you to read and understand the entire MSDS, as there is important information throughout the document. Dow expects you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## **1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

### **1.1 IDENTIFICATION**

**Product Name**        Isopropanol, Anhydrous, USP Grade

### **1.2 COMPANY IDENTIFICATION**

The Dow Chemical Company  
Midland, MI 48674

### **1.3 EMERGENCY TELEPHONE NUMBER**

**24-HOUR EMERGENCY TELEPHONE NUMBER: (989)636-4400.**  
Customer Information Number: 1-800-258-2436.

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## 2. COMPOSITION INFORMATION

<b>Component</b>	<b>CAS #</b>	<b>Amount (%W/W)</b>
Isopropanol	67-63-0	>= 99.87 <= 99.99%

## 3. HAZARDS IDENTIFICATION

### 3.1 EMERGENCY OVERVIEW

**Appearance** Colorless

**Physical State** Liquid

**Odor** Slight ethanol/acetone-like

**Hazards of product** FLAMMABLE LIQUID AND VAPOR.  
MAY CAUSE EYE IRRITATION.  
MAY CAUSE RESPIRATORY TRACT IRRITATION.  
HARMFUL IF SWALLOWED.  
HARMFUL IF INHALED.  
MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS.  
ASPIRATION HAZARD. CAN ENTER LUNGS AND CAUSE DAMAGE.  
ISOLATE AREA.  
KEEP UPWIND OF SPILL.  
STAY OUT OF LOW AREAS.

### 3.2 POTENTIAL HEALTH EFFECTS

#### Effects of Single Acute Overexposure

**Inhalation** In confined or poorly ventilated areas, vapor can readily accumulate and can cause unconsciousness and death. Excessive exposure (400 ppm) to isopropanol may cause eye, nose and throat irritation. Incoordination, confusion, hypotension, hypothermia, circulatory

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collapse, respiratory arrest and death may follow a longer duration or higher levels. Observations in animals include middle ear lining damage upon exposure to vapors of isopropanol. However, the relevance of this to humans is unknown

**Eye Contact** May cause pain disproportionate to the level of irritation to eye tissues. May cause moderate eye irritation. May cause moderate corneal injury. Vapor may cause eye irritation experienced as mild discomfort and redness. Vapor may cause lacrimation (tears).

**Skin Contact** Prolonged exposure not likely to cause significant skin irritation. Repeated contact may cause drying or flaking of skin.

**Skin Absorption** Prolonged skin contact is unlikely to result in absorption of harmful amounts.

**Swallowing** Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia. May cause central nervous system effects. May cause nausea or vomiting. Excessive exposure may cause facial flushing, low blood pressure and slow heartbeat. Excessive exposure may cause Kidney effects. The single lethal dose for a human adult for 70% isopropyl alcohol is about 250 ml although as little as 100 ml can be fatal.

## Chronic, Prolonged or Repeated Overexposure

**Effects of Repeated Overexposure** In animals, effects have been reported on the following organs: Liver. Observations in animals include: lethargy. Kidney effects and/or tumors have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans. Isopropanol has been toxic to the fetus in laboratory animals at doses toxic to the mother. In animal studies, did not interfere with reproduction.

**Other Effects of Overexposure** No information available.

See Section 11 for toxicological information and additional information about potential health effects.

## **3.3 POTENTIAL ENVIRONMENTAL EFFECTS**

See Section 12 for Ecological Information.

## **4. FIRST AID PROCEDURES**

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### **4.1 INHALATION**

Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

### **4.2 EYE CONTACT**

Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

### **4.3 SKIN CONTACT**

Wash skin with plenty of water.

### **4.4 SWALLOWING**

Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.

### **4.5 NOTES TO PHYSICIAN**

The decision of whether to induce vomiting or not should be made by a physician.

If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach.

Hemodialysis may be of benefit if substantial amounts have been ingested and the patient is showing signs of intoxication.

Consider hemodialysis for patients with persistent hypotension or coma unresponsive to standard therapy (isopropanol levels >400 - 500 mg/dl). (Goldfrank 1998, King et al, 1970).

Skin contact may aggravate preexisting dermatitis.

No specific antidote.

Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## **5. FIRE FIGHTING MEASURES**

### **5.1 FLAMMABLE PROPERTIES - REFER TO SECTION 9, PHYSICAL AND CHEMICAL PROPERTIES**

### **5.2 EXTINGUISHING MEDIA**

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. Straight or direct water streams may not be effective to extinguish fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

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## **5.3 FIRE FIGHTING PROCEDURES**

Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Water may not be effective in extinguishing fire. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Eliminate sources of ignition. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Use caution and test if material is burning before entering area. Material burns with invisible flame.

## **5.4 SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS**

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with SCBA. If this is not available, wear full chemical resistant clothing with SCBA and fight fire from a remote location. For protective equipment in post-fire or non-fire clean up situations, refer to the relevant sections.

## **5.5 UNUSUAL FIRE AND EXPLOSION HAZARDS**

Electrically bond and ground all equipment.

Flammable mixtures of this product are readily ignited even by static discharge.

Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur.

Flammable mixtures may exist within the vapor space of containers at room temperature.

Vapors form from this product and may travel or be moved by air currents and ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from product handling point.

Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association Document NFPA 77.

Avoid splash filling of containers when handling this flammable liquid because static electricity may be generated. Use proper bonding and grounding during product transfer as described in National Fire Protection Association Document NFPA 77.

When product is stored in closed containers, a flammable atmosphere can develop.

Flammable concentrations of vapor can accumulate at temperatures above flash point; see Section 9.

Flame may be invisible. Approach fire with caution.

## **5.6 HAZARDOUS COMBUSTION PRODUCTS**

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

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## **6. ACCIDENTAL RELEASE MEASURES**

### **Steps to be Taken if Material is Released or Spilled:**

Contain spilled material if possible. Ground and bond all containers and handling equipment. Apply vapor suppression foams until spill can be cleaned up. Collect in suitable and properly labeled open containers. Pump with explosion-proof equipment. If available, use foam to smother or suppress. See Section 13, Disposal Considerations, for additional information.

**Personal Precautions:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep personnel out of low areas. Keep upwind of spill. Vapor explosion hazard. Keep out of sewers. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Ground and bond all containers and handling equipment. For large spills, warn public of downwind explosion hazard. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Ventilate area of leak or spill. No smoking in area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Refer to Section 7, Handling for additional precautionary measures.

**Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways and/ or groundwater. See Section 12, Ecological Information.

## **7. HANDLING AND STORAGE**

### **7.1 HANDLING**

#### **General Handling**

Keep away from heat, sparks and flame.

Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur.

Ignition sources can include and are not limited to pilot lights, flames, smoking, sparks, heaters, electrical equipment, and static discharges.

Avoid contact with eyes.

Avoid breathing vapor.

Do not swallow.

Keep container closed.

Use with adequate ventilation.

Wash thoroughly after handling.

No smoking, open flames or sources of ignition in handling and storage area.

Electrically ground and bond all equipment.

Never use air pressure for transferring product.

Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation.

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Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.  
See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

## **Ventilation**

Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Lethal concentrations may exist in areas with poor ventilation.

## **Other Precautions**

Vapor may settle in low or confined areas, or travel a long distance to an ignition source and flash back explosively.

## **7.2 STORAGE**

Small quantities of peroxides can form on prolonged storage. Exposure to light and/or air significantly increases the rate of peroxide formation. If evaporated to a residue, the mixture of peroxides and isopropanol may explode when exposed to heat or shock. Minimize sources of ignition, such as static build up, heat, spark or flame.

# **8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

## **8.1 EXPOSURE LIMITS**

<b>Component</b>	<b>Exposure Limits</b>	<b>Skin. Form</b>
Isopropanol	200 ppm TWA8 ACGIH 400 ppm STEL ACGIH 400 ppm TWA8 OSHA	

*In the Exposure Limits Chart above, if there is no specific qualifier (i.e., Aerosol) listed in the Form Column for a particular limit, the listed limit includes all airborne forms of the substance that can be inhaled.*

*A "Yes" in the Skin Column indicates a potential significant contribution to overall exposure by the cutaneous (skin) route, including mucous membranes and the eyes, either by contact with vapors or by direct skin contact with the substance. A "Blank" in the Skin Column indicates that exposure by the cutaneous (skin) route is not a potential significant contributor to overall exposure.*

## **8.2 PERSONAL PROTECTION**

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<b>Respiratory Protection:</b>	<p>Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration.</p> <p>For emergency and other conditions where the exposure guideline may be exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.</p> <p>In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure airline with auxiliary self-contained air supply.</p>
<b>Ventilation:</b>	<p>Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.</p> <p>Lethal concentrations may exist in areas with poor ventilation.</p>
<b>Eye Protection:</b>	<p>Use chemical goggles.</p> <p>If exposure causes eye discomfort, use a full-face respirator.</p>
<b>Protective Gloves:</b>	<p>Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur.</p> <p>Examples of preferred glove barrier materials include:</p> <ul style="list-style-type: none"><li>Chlorinated polyethylene.</li><li>Natural rubber ("latex").</li><li>neoprene.</li><li>Nitrile/butadiene rubber ("nitrile" or "NBR").</li><li>Polyethylene.</li><li>Ethyl vinyl alcohol laminate ("EVAL").</li><li>Polyvinyl chloride ("PVC" or "vinyl").</li></ul> <p>Avoid gloves made of:</p> <ul style="list-style-type: none"><li>Polyvinyl alcohol ("PVA").</li></ul> <p>NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.</p>

## 8.3 ENGINEERING CONTROLS

**PROCESS HAZARD:** Sudden release of hot organic chemical vapor or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions.

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Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Further information is available in a technical bulletin entitled "Ignition Hazards of Organic Chemical Vapor."

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Liquid

**Appearance:** Colorless

**Odor:** Slight ethanol/acetone-like

**Flash Point - Closed Cup:** 12 °C 53 °F , Tag Closed Cup ASTM D 56

**Flammable Limits In Air:**

Lower 2.0 %(V)  
Upper 12.7 %(V) 200 °F, 93 °C

**Autoignition Temperature:** No test data available.

**Vapor Pressure:** 33 mmHg 20 °C

**Boiling Point (760 mmHg):** 82 °C 180 °F

**Vapor Density (air = 1):** 2.1

**Specific Gravity (H<sub>2</sub>O = 1):** 0.787 20 °C / 20 °C

**Liquid Density:** 0.785 g/cm<sup>3</sup> 20 °C

**Freezing Point:** -89 °C -127 °F

**Melting Point:** Not applicable.

**Solubility in Water (by weight):** 100 % 20 °C

**pH:** Not applicable.

**Molecular Weight:** 60 g/mol

**Octanol/Water Partition Coefficient - Measured:** 0.14

**Evaporation Rate (Butyl Acetate = 1):** 2.9

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**Percent Volatiles:** 100 Wt%

### 10. STABILITY AND REACTIVITY

**10.1 STABILITY/INSTABILITY** Stable.

**Conditions to Avoid:** Exposure to elevated temperatures can cause product to decompose. Avoid static discharge.

**Incompatible Materials:** Avoid contact with: Aldehydes. Halogens. Strong acids. Strong oxidizers.

**Thermal Decomposition:** Decomposition products depend upon temperature, air supply and the presence of other materials.

**10.2 HAZARDOUS POLYMERIZATION** Will not occur.

### 11. TOXICOLOGICAL INFORMATION

#### ACUTE TOXICITY

##### Peroral

Rat; LD50 (4700 - 5800) mg/kg

##### Percutaneous

Rabbit; LD50 (13000) mg/kg

##### Inhalation

Vapor Study LC50 Rat; male; (8 h) = 22500 ppm

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## **Inhalation**

Vapor Study LC50 Rat; female; (8 h) = 19000 ppm

## **DEVELOPMENTAL TOXICITY**

Isopropanol has been toxic to the fetus in laboratory animals at doses toxic to the mother.

## **REPRODUCTIVE TOXICITY**

In animal studies, did not interfere with reproduction.

## **CHRONIC TOXICITY AND CARCINOGENICITY**

Did not cause cancer in laboratory animals.

## **GENETIC TOXICOLOGY**

### **In Vitro**

In vitro genetic toxicity studies were negative.

### **In Vivo**

Animal genetic toxicity studies were negative.

## **SIGNIFICANT DATA WITH POSSIBLE RELEVANCE TO HUMANS**

In animals, effects have been reported on the following organs:

Liver.

Observations in animals include:

lethargy.

Kidney effects and/or tumors have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans.

## **12. ECOLOGICAL INFORMATION**

### **12.1 ENVIRONMENTAL FATE**

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Biodegradation reached in Modified OECD Screening Test (OECD Test No. 301 E) after 28 days: 95%. Inhibitory concentration (IC50) in OECD Activated Sludge Respiration Inhibition Test (OECD Test No. 209) is: greater than 1000 mg/l. Mean degradation reached in Continuous Activated Sludge assay (OECD Test No. 303 A): 99.9%.

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### **BOD (% Oxygen consumption)**

	<b>Day 5</b>	<b>Day 10</b>	<b>Day 15</b>	<b>Day 20</b>	<b>Day 28/30</b>
	20 - 72 %			78 - 86 %	

### **Closed Bottle Test (OECD 301D) (% Oxygen consumption)**

	<b>Day 5</b>	<b>Day 10</b>	<b>Day 15</b>	<b>Day 28</b>
				84 %

## **12.2 ECOTOXICITY**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L in the most sensitive species tested).

### **Toxicity to Aquatic Invertebrates**

water flea (*Daphnia magna*); Acute LC50

**Result value:** 9500 mg/L

### **Toxicity to Aquatic Invertebrates**

water flea *Daphnia magna*; Acute immobilization EC50

**Result value:** (7550 - 9714)

### **Toxicity to Fish**

fathead minnow (*Pimephales promelas*); Acute LC50

**Result value:** 8300 - 9200 mg/L

### **Toxicity to Fish**

mosquito fish (*Gambusia affinis*); Acute LC50

**Result value:** > 1400 mg/L

### **Toxicity to Fish**

bluegill (*Lepomis macrochirus*); Acute LC50

**Result value:** > 1400 mg/L

### **Toxicity to Fish**

golden orfe (*Leuciscus idus*); Acute LC50

**Result value:** 9100 mg/L

### **Toxicity to Fish**

goldfish (*Carassius auratus*); Acute LC50

**Result value:** > 500 mg/L

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## **12.3 FURTHER INFORMATION**

Bioconcentration potential is low ( $BCF < 100$  or  $\text{Log Pow} < 3$ ). Henry's Law Constant (H) is estimated to be:  $3.38E-06 \text{ atm}\cdot\text{m}^3/\text{mol}$ . Potential for mobility in soil is very high (Koc between 0 and 50). Soil organic carbon/water partition coefficient (Koc) is estimated to be: 1.1  
Theoretical Oxygen Demand (THOD) - calculated: 2.40 mg/mg

Octanol/Water Partition Coefficient - Measured: 0.14

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 DISPOSAL**

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. DOW HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (Composition/ Information on Ingredients). FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Group at 1-800-258-2436 or 1-989-832-1556 (U.S.), or 1-800-331-6451 (Canada) for further details .

## **14. TRANSPORT INFORMATION**

### **14.1 U.S. D.O.T.**

#### **NON-BULK**

**Proper Shipping Name :** ISOPROPANOL

**Hazard Class :** 3

**ID Number :** UN1219

**Packing Group :** PG II

#### **BULK**

**Proper Shipping Name :** ISOPROPANOL

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**Hazard Class :** 3  
**ID Number :** UN1219  
**Packing Group :** PG II

*This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.*

## **15. REGULATORY INFORMATION**

### **15.1 FEDERAL/NATIONAL**

#### **OSHA HAZARD COMMUNICATION STANDARD**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### **SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986) SECTION 313**

To the best of our knowledge this product does not contain chemicals at levels which require reporting under this statute.

#### **COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (CERCLA) SECTION 103**

This product contains the following substances which are subject to CERCLA Section 103 reporting requirements and which are listed in 40 CFR 302.4.

<b>Component</b>	<b>CAS #</b>	<b>Amount</b>
Acetone	67-64-1	<= 0.0020%
Methanol	67-56-1	<= 0.0005%
Cyclohexane	110-82-7	<= 0.0002%

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## **SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986) SECTION 302**

To the best of our knowledge this product does not contain chemicals at levels which require reporting under this statute.

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## **SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986) SECTIONS 311 AND 312**

**Delayed (Chronic) Health Hazard :** Yes  
**Fire Hazard :** Yes  
**Immediate (Acute) Health Hazard :** Yes  
**Reactive Hazard :** No  
**Sudden Release of Pressure Hazard :** No

## **TOXIC SUBSTANCES CONTROL ACT (TSCA)**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

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## **EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS)**

The components of this product are on the EINECS inventory or are exempt from EINECS inventory requirements.

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## **CEPA - DOMESTIC SUBSTANCES LIST (DSL)**

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

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## **15.2 STATE/LOCAL**

### **PENNSYLVANIA (WORKER AND COMMUNITY RIGHT-TO-KNOW ACT): PENNSYLVANIA HAZARDOUS SUBSTANCES LIST AND/OR PENNSYLVANIA ENVIRONMENTAL HAZARDOUS SUBSTANCE LIST:**

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The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

<b>Component</b>	<b>CAS #</b>	<b>Amount</b>
Isopropanol	67-63-0	<= 99.9900%

## PENNSYLVANIA (WORKER AND COMMUNITY RIGHT-TO-KNOW ACT): PENNSYLVANIA SPECIAL HAZARDOUS SUBSTANCES LIST:

To the best of our knowledge this product does not contain chemicals at levels which require reporting under this statute.

## CALIFORNIA PROPOSITION 65 (SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

## CALIFORNIA SCAQMD RULE 443.1 (SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 443.1 LABELING OF MATERIALS CONTAINING ORGANIC SOLVENTS)

**VOC:** 785 g/l Vapor pressure 33 mmHg @ 20° C

*This section provides selected regulatory information on this product including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws relating to the product being used.*

## **16. OTHER INFORMATION**

### **16.1 ADDITIONAL INFORMATION**

**ADDITIONAL INFORMATION:** There may be additional product safety information on this product, which may be obtained by calling Dow's Customer Information Group at 1-800-258-2436 (U.S.) or 1-800-331-6451 (Canada).

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## 16.2 HAZARD RATING SYSTEM

**NFPA ratings for this product are: H - 1      F - 3      R - 0**

*These ratings are part of a specific hazard communication program and should be disregarded where individuals are not trained in the use of this hazard rating system. You should be familiar with the hazard communication programs applicable to your workplace.*

## 16.3 RECOMMENDED USES AND RESTRICTIONS

FOR INDUSTRY USE ONLY

## 16.4 REVISION

Version: 8.1

Revision: 09/01/2004

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

## 16.5 LEGEND

Bacterial/NA	Non Acclimated Bacteria
F	Fire
H	Health
IHG	Industrial Hygiene Guideline
N/A	Not available
NFPA	National Fire Protection Association
O	Oxidizer
R	Reactivity
TS	Trade secret
VOL/VOL	Volume/Volume
W	Water Reactive
W/W	Weight/Weight

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## **MATERIAL SAFETY DATA SHEET**

**Product Name:** Isopropanol, Anhydrous, USP Grade  
**MSDS#:** 1194

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*that its activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of Dow, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product., Due to the proliferation of sources for information such as manufacturer-specific MSDSs, Dow is not and cannot be responsible for MSDSs obtained from any source other than Dow. If you have obtained a Dow MSDS from a non-Dow source or if you are not sure that a Dow MSDS is current, please contact Dow for the most current version.*