



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. IX 232  
Effective Date March 17, 1999

## SECTION V HEALTH HAZARD DATA IX 232

**Threshold Limited Value** None established for 70% Isopropyl Alcohol. For Pure Isopropyl Alcohol:  
TWA: 400 ppm; 980 mg/m<sup>3</sup>. Human, oral LDLo 2371 mg/kg.

**Effects of Overexposure** **TARGET ORGANS AFFECTED:** Central nervous system, respiratory tract.  
**INGESTION AND INHALATION:** Of large quantities of the vapor may cause flushing, headache, dizziness, mental depression, nausea, vomiting, narcosis, anesthesia, coma. Aspiration hazard. **EYES:** Liquid may cause irritation. **SKIN:** Repeated contact may cause irritation and cracking.

**Emergency and First Aid Procedures** **INHALATION:** Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get emergency medical attention. **SKIN:** Flush thoroughly with water, then wash with mild soap and water. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get immediate medical attention. **INGESTION:** If swallowed, if conscious, give large amounts of water to drink. Call physician immediately. Never give anything by mouth to an unconscious person.

## SECTION VI REACTIVITY DATA

**Stability** **Unstable** **Conditions to Avoid** Excessive temperatures, heat, spark or flame.  
**Stable** X

**Incompatibility (Materials to Avoid)** Strong oxidizing materials, caustics, chlorinated compounds can react vigorously with this alcohol. Aluminum, metal, nitroform, oleum.

**Hazardous Decomposition Products** Thermal decomposition or burning will produce carbon dioxide and/or carbon monoxide.

**Hazardous Polymerization** **Conditions to Avoid**  
**May Occur** **Will Not Occur** Not applicable.  
X

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled** Remove all ignition sources. Provide adequate ventilation. This material is handled and disposed of as a flammable liquid. Absorb small spills on paper; evaporate isopropyl alcohol in an exhaust hood; burn paper after evaporation. Prevent flow to sewers and public water ways.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.  
Dispose of in an approved incinerator or contract with a licensed waste disposal service.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Respiration Protection (Specify Type)** None needed in normal laboratory handling. If misty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved respirator.

**Ventilation** **Local Exhaust** Recommended. **Special** No.  
**Mechanical (General)** Recommended. **Other** Adequate to maintain below exposure limit.

**Protective Gloves** Rubber. **Eye Protection** Chemical safety glasses.

**Other Protective Equipment** Goggles, lab coat, eye wash station, proper gloves, ventilation hood, fire extinguisher.

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool, dry place away from strong oxidizing materials and fire hazards. Wash thoroughly after handling.  
Keep container tightly closed when not in use.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals.  
Avoid contact with eyes and skin. Avoid prolonged or repeated breathing of vapors. Use with adequate ventilation. Keep away from heat, sparks, and flame. Keep container tightly closed when not in use. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

**Revision** No. 3 **Date** 3/17/99 **Approved** Michael Raszeja **Chemical Safety Coordinator** MR

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. \* Hazardous Materials Industrial Standards. Printed on recycled paper.

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	ISOPROPYL ALCOHOL, 50% SOLUTION
<b>Chemical Synonyms</b>	Isopropanol, Water Solution
<b>Formula</b>	Mixture.
<b>Unit Size</b>	up to 20 Lt.
<b>C.A.S. No.</b>	Mixture.

CHEMTREC  
800-424-9300  
Day 716-226-6177

NFPA HAZARD RATING  
LEAST SLIGHT MODERATE HIGH EXTREME  
0 1 2 3 4

Health	1
Fire	3
Reactivity	1

HMIS \*  
3 4

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Isopropyl Alcohol: (CAS No. 67-63-0)	50%	See Section V.
Water: (CAS No. 7732-18-5)	50%	None established.
<b>WARNING! FLAMMABLE! CAUSES EYE</b>		

**IRRITATION. HARMFUL IF SWALLOWED.**

## SECTION III PHYSICAL DATA

Melting Point (°F)	Approx. -21.6°C (-7°F)	Specific Gravity (H <sub>2</sub> O = 1)	Approx. 0.8
Boiling Point (°F)	80°C (176°F)	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	25.1 mm @ 20°C	Evaporation Rate (n-Butyl Acetate =1)	Greater than 1.
Vapor Density (Air=1)	2.1 (Pure IPA)		
Solubility in Water	Complete.		
Appearance & Odor	Clear, colorless, mobile liquid; sweet mild odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	23.9°C (75.5°F) TCC (for 50%)	<b>Flammable Limits in Air % by Volume</b>	<b>Lower</b>	<b>Upper</b>
		Pure IPA	2%	12%
<b>Extinguisher Media</b>	"Alcohol foam"; carbon dioxide (CO <sub>2</sub> ); dry chemical (ABC); water spray.			

**SPECIAL FIREFIGHTING PROCEDURES** Wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective equipment.

Autoignition Temperature: 399°C (750°F) (ASTM-E659-78) pure IPA.  
Cool Flame: 360°C (680°F) (ASTM-E659-78) pure IPA.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 129)

**UNUSUAL FIRE AND EXPLOSION HAZARDS** Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, or ignition sources at locations distant from material handling point. **CAUTION!** Flame may not be visible in daylight. Fire or excessive heat may produce hazardous decomposition products; can react vigorously with oxidizing materials.

D.O.T. ISOPROPYL ALCOHOL, (SOLUTION), 3, UN 1219, PG II

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20