



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

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MSDS No. IX 190
Effective Date March 16, 1999

SECTION V HEALTH HAZARD DATA

IX 190

Threshold Limited Value None established for this solution. Methanol TWA: 200 ppm; 262 mg/m³. Ethanol TWA: 1000 ppm; 1880 mg/m³. Methyl Isobutyl Ketone TWA: 50 ppm; 205 mg/m³.

Effects of Overexposure Contact as Iodine fumes or solution is intensely irritating to eyes, skin and mucous membranes. May cause delayed lung injury. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated for this mixture. Exercise appropriate procedures to minimize potential hazards. **INGESTION:** May cause abdominal pain, vomiting, diarrhea, dizziness, drowsiness. In severe cases purging, excessive thirst and circulatory failure may develop.

Emergency and First Aid Procedures

INGESTION: If swallowed, if conscious, give one or two glasses of milk, followed by a starch, milk or egg white, as a water solution. Call physician immediately. Never give anything by mouth to an unconscious person. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **INHALATION:** Remove to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **SKIN:** Flush thoroughly with water.

SECTION VI REACTIVITY DATA

Stability	Unstable	Stable	Conditions to Avoid
		X	Excessive temperature or heat.

Incompatibility (Materials to Avoid) Strong oxidizers. Contact of gaseous ammonia or its solutions with iodine should be avoided to prevent the formation of the explosive "nitrogen iodide". Sodium Azide, Sodium Hydride.

Hazardous Decomposition Products When heated, emits toxic and corrosive fumes of iodine.

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

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Remove all sources of ignition, provide adequate ventilation. Absorb spill in vermiculite, sand, earth, paper towel and place in a suitable container for disposal. Wash spill area with 5-10% Sodium thiosulfate solution.

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 chemical landfill or dispose of in an approved incinerator equipped with an afterburner and scrubber.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) For normal laboratory use at room temperature, none should be needed. If needed, for fume or spray work in ventilation hood or wear an OSHA-approved respirator.

Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	No.

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

Other Protective Equipment Smock, apron, eye wash station, goggles, ventilation hood, proper gloves.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Store in a cool, dry, well-ventilated area, away from any fire hazards. Wash thoroughly after handling.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals.

Avoid breathing vapor. Use with adequate ventilation. Remove and wash contaminated clothing.

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

Revision	No. 7	Date	3/16/99	Approved	Michael Raszeja	Chemical Safety Coordinator	MR
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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

Product	IODINE SOLUTION, TINCTURE
Chemical Synonyms	Tincture Of Iodine
Formula	Mixture.
Unit Size	up to 3.785 Lt.
C.A.S. No.	Mixture.

0

3

0

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

NFPA
HAZARD RATING
LEAST SLIGHT MODERATE
0 1 2

Health 3
Fire 4
Reactivity 2

HMIS *
HIGH EXTREME
3 4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Iodine: (CAS No. 7553-56-2)	7.39%	C 0.1 ppm; 1 mg/m ³
Potassium Iodide: (CAS No. 7681-11-0)	5.28%	None established.
Water: (CAS No. 7732-18-5)	10.98%	None established.
Ethyl Alcohol (Denatured): (CAS No. 64-17-5)*	70%	1000 ppm; 1880 mg/m ³

DANGER! FLAMMABLE! CORROSIVE! HARMFUL IF INHALED OR SWALLOWED.

CAUSES IRRITATION TO SKIN, EYES AND MUCOUS MEMBRANES

SECTION III PHYSICAL DATA

Melting Point (°F)	Freezing point -80°C (-112°F)	Specific Gravity (H ₂ O = 1)	Approx. 0.79 (20/20°C)
Boiling Point (°F)	74.5 to 79.5°C (163-174°F)	Percent Volatile by Volume (%)	81%
Vapor Pressure (mm Hg)	Ca 42 mm (Ethyl Alcohol).	Evaporation Rate (Ether = 1)	Greater than 1.
Vapor Density (Air=1)	Ca 1.6 (Ethyl Alcohol).		
Solubility in Water	Complete.		
Appearance & Odor	Deep-amber color liquid; mild alcohol characteristic odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	70°F (21°C) TCC	Flammable Limits in Air % by Volume	Lower	Upper
		Ethyl Alc.	3.3 (Et. Alc.)	19.0 (Et. Alc.)

Extinguisher Media Water spray; carbon dioxide (CO₂); dry chemical.

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing.

* Denaturants:

Methanol: (CAS No. 67-56-1) - 2.9%
Methyl Isobutyl Ketone: (CAS No. 108-10-1) - 1.5%

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products. Iodine vapor, violet in color, is corrosive to metals and to all body tissues. Alcohol burns with a clear, almost invisible flame, especially hard to see in strong sunlight.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 128)

D.O.T. **Flammable liquids, n.o.s., (Ethyl alcohol), 3, UN 1993, PG II**

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