MATERIAL SAFETY DATA SHEET

ALDON CORPORATION
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MSDS No. IX 120
Effective Date March 11, 1999

SECTION I NAME

Product	IODINE
Chemical Synonyms	Iodine
Formula	I_2
Unit Size	up to 2.5 Kg.
C.A.S. No.	7553-56-2

24 HOUR EMERGENCY ASSISTANCE

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

NFPA HAZARD RATING

LEAST	SLIGHT	MODERATE	HIGH	EXTREME
0	1	2	3	4

HMIS *

Health	3
Fire	0
Reactivity	2

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Iodine	100%	See Section V.
DANGER! CORROSIVE! CAUSES SKIN AND EYE BURNS. MAY BE FATAL		
IF SWALLOWED. CAUSES IRRITATION TO EYES AND RESPIRATORY TRACT.		
HARMFUL IF INHALED. MAY CAUSE DELAYED LUNG INJURY. SUBLIMES.		

SECTION III PHYSICAL DATA

Melting Point (°F)	113.5°C (235°F)	Specific Gravity (H_2O = 1)	4.93
Boiling Point (°F)	184°C (363°F)	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	0.2 mm at 20°C	Evaporation Rate (=1)	Sublimes at ordinary temperatures.
Vapor Density (Air=1)	4.4		
Solubility in Water	0.029 grams per 100 mL. water at 20°C; 0.078 g at 50°C.		
Appearance & Odor	Bluish-black scales, crystals, metallic luster; characteristic odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable.	Flammable Limits in Air % by Volume	Lower	Upper
		N/A		
Extinguisher Media	Water spray in quantities depending upon the seriousness of the fire.			

SPECIAL FIREFIGHTING PROCEDURES

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

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 154)

UNUSUAL FIRE AND EXPLOSION HAZARDS

Sublimes at ordinary temperatures yielding a vapor, violet in color and corrosive to metals and to all body tissues.

D.O.T. **CORROSIVE SOLIDS, N.O.S. , (IODINE), 8, UN 1759, PG III**

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

SECTION V HEALTH HAZARD DATA

IX 120

Threshold Limited Value

TWA: (Ceiling limit) 0.1 ppm; 1 mg/m^3 (Air).
Toxicity: Oral-human LDLO; 2000 mg/kg. (ACGIH 1992-93).

Effects of Overexposure

Target organs affected: Circulatory system and kidneys. Severe lachrymator. Extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, skin. May cause spasm, chemical pneumonitis, coughing, wheezing, short of breath, headache, nausea and vomiting.

Emergency and First Aid Procedures

INGESTION: If swallowed, if conscious, give one or two glasses of milk, followed by a starch, flour or egg white, as a water solution. Get immediate medical attention. 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 immediate medical attention. **SKIN:** Flush thoroughly with water. Get immediate medical attention.

SECTION VI REACTIVITY DATA

Stability			**Conditions to Avoid**
	Unstable		Excessive temperature or heat will increase rate of sublimation.
	Stable	X	

Incompatibility (Materials to Avoid)

Contact of gaseous ammonia or its solutions with free iodine should be avoided to prevent the formation of the explosive "nitrogen iodide". Acetaldehyde, Sodium Azide, Sodium Hydride. Corrodes steel.

Hazardous Decomposition Products

Elemental form. Cannot produce decomposition products.

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

Recover for use if not contaminated. Wear full protective clothing (safety goggles, gas mask and gloves are recommended) and provide ventilation. Cover with lime or soda ash. Sweep up and place in a suitable container for disposal. Wash floor or spill area with a 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.

Work in a ventilation hood and wearing proper safety equipment, collect waste iodine in a large beaker. Cover with a large volume of water. Slowly add, while stirring soda ash or sodium thiosulfate till all of the iodine has been dissolved and solution is colorless. Flush to sewer with copious amounts of water.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) In the laboratory, work in a fume hood or if iodine vapors are produced in work area, wear a NIOSH/MSHA-approved respirator.

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

Protective Gloves	Rubber.	**Eye Protection**	Chemical safety goggles.
Other Protective Equipment	Smock, apron, eye wash station, ventilation, goggles with side shield, proper gloves, safety shower.		

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

Keep container tightly closed when not in use.

Store in a cool, dry, well-ventilated area away from heat and direct sunlight. Wash thoroughly after handling.

Other Precautions

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

Avoid contact with skin, eyes and clothing. Contact with skin will leave yellow iodine stain. Use with adequate ventilation. Remove all contaminated clothing and shoes. Decontaminate before reuse.

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

Revision	No. 7	Date	3/11/99	Approved	Michael Raszeja	Chemical Safety Coordinator	MR