MATERIAL SAFETY DATA SHEET

ALDON CORPORATION
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MSDS No. IX 245
Effective Date March 18, 1999

SECTION I NAME

Product	ISOBUTYRALDEHYDE
Chemical Synonyms	2-Methylpropionaldehyde
Formula	$(CH_3)_2CHCHO$
Unit Size	up to 20 Lt.
C.A.S. No.	78-84-2

24 HOUR EMERGENCY ASSISTANCE

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

Health	3
Fire	4
Reactivity	0

NFPA HAZARD RATING / HMIS *

LEAST	SLIGHT	MODERATE	HIGH	EXTREME
0	1	2	3	4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Isobutyraldehyde	>98%	See Section V.

DANGER! EXTREMELY FLAMMABLE! HARMFUL BY INHALATION, INGESTION OR CONTACT WITH SKIN. HARMFUL VAPOR. STENCH.

SECTION III PHYSICAL DATA

Melting Point (°F)	-65°C (-84°F)	Specific Gravity (H_2O = 1)	0.794 @ 20/4°C
Boiling Point (°F)	63°C (145°F)	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	66 mm @ 4.4°C	Evaporation Rate (=1)	N/A
Vapor Density (Air=1)	2.5		
Solubility in Water	Insoluble		
Appearance & Odor	Colorless liquid; Pungent odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Flammable Limits in Air % by Volume	Lower	Upper
-16°C (-2°F)		2% @ 32°C	10% @ 25°C

Extinguisher Media: Carbon dioxide (CO_2); dry chemical (ABC); foam; water spray.

SPECIAL FIREFIGHTING PROCEDURES

Wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective equipment. Use water spray to keep fire exposed containers cool.

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

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor may travel considerable distance to source of ignition and flash back. Explosion may occur under fire conditions. Forms explosive mixtures with air.
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. **Isobutyraldehyde, 3, UN 2045, PG II**

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

SECTION V HEALTH HAZARD DATA IX 235

Threshold Limited Value: None established ACGIH (1992-93). Toxicity data: orl-rat LD50: 960 mg/m^3 Inh-mus LC50: 39500 mg/m^3/2H. Skin-rbt LD50: 7130 ul/kg.

Effects of Overexposure: Causes severe irritation. High concentrations are extremely destructive to tissues of the mucous membranes and upper respiratory tract, eyes and skin. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated.

Emergency and First Aid Procedures: **EYES:** Flush thoroughly with water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get immediate medical attention. **SKIN:** Flush with soap and water. If irritation develops or persists, get medical attention. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **INGESTION:** If swallowed, if conscious, rinse mouth with water. Get medical attention. Never give anything by mouth to an unconscious person.

SECTION VI REACTIVITY DATA

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

Incompatibility (Materials to Avoid): Strong oxidizing agents, strong acids, bases, reducing agents.

Hazardous Decomposition Products: Thermal decomposition or burning will produce toxic fumes of 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. Wear suitable protective clothing. Cover with dry lime, soda ash or sand. Place in covered container using non sparking tools and transport outdoors. Ventilate area and wash spill site after material pick up is complete. 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 equipped with an after burner and scrubber or contract with a licensed waste disposal service.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type): Local exhaust ventilation required. Use a NIOSH/MSHA-approved respirator. Do not use in confined areas.

Ventilation

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

Protective Gloves: Chemical resistance. **Eye Protection**: Chemical safety goggles.

Other Protective Equipment: Lab coat, apron, eye wash station, proper gloves, ventilation hood and fire extinguisher.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing: Keep away from sources of ignition. Keep container tightly closed in a cool, well-ventilated place. Wash thoroughly after handling. Refrigerate. Store under nitrogen.
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.

Do not breathe vapors. Use with adequate ventilation. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing.

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

Revision	Date	Approved	Chemical Safety Coordinator
No. 2	3/18/99	Michael Raszeja	MR