



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

1533 W. Henrietta Rd.
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(716) 226-6177

MSDS No. HH 26
Effective Date July 6, 1998

SECTION V HEALTH HAZARD DATA

HH 26

Threshold Limited Value

None established. (ACGIH 1992-93). Toxicity studies: oral-rat LD50 = 750 mg/kg. Inhalation 10 minute ALC: 1,580 ppm in mice.

Effects of Overexposure

INHALATION: Can cause pulmonary irritation after inhalation of excessive amounts. **SKIN:** Can cause severe skin irritation including dermatitis and skin sensitization. **EYES:** Can cause severe eye irritation and/or serious damage to the eye. **INGESTION:** Harmful if swallowed. Corrosive to digestive tract.

Emergency and First Aid Procedures

EYE CONTACT: Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Flush thoroughly with water, then wash with mild soap and water. **INHALATION:** Remove to fresh air. If ill effects develop, get medical attention. **INGESTION:** If swallowed, if conscious, give one or two glasses of milk or water to drink and call physician immediately. Do **NOT** induce vomiting. Never give anything by mouth to an unconscious person.

SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid	Absorbs water and carbon dioxide from air. Excessive temperature or heat.
	Stable	X		

Incompatibility (Materials to Avoid)	Strong oxidizers and strong acids.
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Hazardous Decomposition Products	Thermal decomposition or burning will produce carbon dioxide and/or carbon monoxide and oxides of nitrogen (NO _x), ammonia, hydrogen cyanide.
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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	Wearing suitable protective clothing, absorb spilled material in vermiculite, sand or earth. Place in a suitable container for incineration. Wash spill area well with soap and water.
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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 afterburner and scrubber or contract with a licensed waste disposal service.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)		Work in laboratory fume hood. If necessary, if solid, wear NIOSH/MSHA-approved dust mask; if solution organic cartridge 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, ventilation hood, proper gloves, fire extinguisher.			

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing	Do not breathe fume. Do not get in eyes, on skin or clothing. Store in a cool, dry place away from acids and strong oxidizing agents. Wash thoroughly after handling.
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Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals.
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Use with adequate ventilation. Keep away from heat, sparks and flames. Remove and wash contaminated clothing.

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

Revision	No. 5	Date	7/6/98	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	1,6-HEXANEDIAMINE
Chemical Synonyms	Hexamethylenediamine
Formula	1,6-NH ₂ (CH ₂) ₆ NH ₂
Unit Size	up to 2.5 Kg.
C.A.S. No.	124-09-4

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

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

Health	1
Fire	2
Reactivity	1

HMIS *
HIGH EXTREME
3 4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
1, 6-Hexanediamine	98% min.	None established.

Note: This material can be a liquid or solid depending on temperature storage and/or shipping conditions.

DANGER! CORROSIVE! CAUSES SEVERE BURNS. HARMFUL IF INHALED, SWALLOWED

OR ABSORBED THROUGH SKIN. MAY CAUSE ALLERGIC SKIN REACTION.

SECTION III PHYSICAL DATA

Melting Point (°F)	39°-42°C (102°-107°F)	Specific Gravity (H ₂ O = 1)	0.854 at 25°C
Boiling Point (°F)	205°C (401°F)	Percent Volatile by Volume (%)	100% @ 42°C
Vapor Pressure (mm Hg)	3 mm Hg at 60°C	Evaporation Rate (=1)	Data not listed.
Vapor Density (Air=1)	3.8		
Solubility in Water	Freely soluble in water. 90.6 wt. % at 30°C.		
Appearance & Odor	Colorless to tan colored liquid or colorless, silky, leaf-like crystalline solid. Strong amine or fishy odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	160°F	Flammable Limits in Air % by Volume in air	Lower	Upper
			0.7%	6.3%
Extinguisher Media	Carbon dioxide (CO ₂); dry chemical (ABC); water spray.			

SPECIAL FIREFIGHTING PROCEDURES

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

Autoignition Temperature: 390°-420°C (734°-788°F)

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 153)

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products, can react vigorously with oxidizing materials. Hazardous gases produced in fire are ammonia, hydrogen cyanide, carbon monoxide.

D.O.T. HEXAMETHYLENEDIAMINE, SOLID, 8, UN 2280, PG III

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