



**ALDON  
CORPORATION**

## MATERIAL SAFETY DATA SHEET

1533 W.Henrietta Rd.  
Avon, New York 14414  
(716) 226-6177

MSDS No. AA 55  
Effective Date September 14, 1998

### SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	ADIPIIC ACID	<div><div><div>1</div><div>1</div><div>0</div></div><div>CHEMTREC 800-424-9300 Day 716-226-6177</div><div>NFPA HAZARD RATING LEAST SLIGHT MODERATE 0 1 2</div><div>HMIS * HIGH EXTREME 3 4</div></div>
Chemical Synonyms	Hexanedioic Acid	
Formula	HO <sub>2</sub> C(CH <sub>2</sub> ) <sub>4</sub> CO <sub>2</sub> H	
Unit Size	up to 2.5 Kg.	
C.A.S. No.	124-04-9	

### SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Adipic Acid	>99.9%	See Section V.

**WARNING! CAUSES IRRITATION TO SKIN,**

**EYES AND MUCOUS MEMBRANES.**

### SECTION III PHYSICAL DATA

Melting Point (°F)	152°C (305°F)	Specific Gravity (H <sub>2</sub> O = 1)	1.34 @ 18°C (64.4°F)
Boiling Point (°F)	330°C (626°F) decomposes.	Percent Volatile by Volume (%)	0.0% @ 20°C (68°F)
Vapor Pressure (mm Hg)	0.106 m mg @ 25°C (77°F)	Evaporation Rate ( =1)	Not applicable.
Vapor Density (Air=1)	5.04		
Solubility in Water	2.5 W% @ 25°C (77°F)		
Appearance & Odor	Fine white crystalline powder; no odor.		

### SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	196°C (385°F) TCC	Flammable Limits in Air % by Volume	NA	Lower	Upper
Extinguisher Media	Dry chemical (ABC); carbon dioxide (CO <sub>2</sub> ); water spray or foam.				

#### SPECIAL FIREFIGHTING PROCEDURES

If involved in fire situation, wear a NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Adipic acid becomes corrosive in contact with water. Water may cause frothing.

Autoignition Temperature: 420°C (788°F)

#### UNUSUAL FIRE AND EXPLOSION HAZARDS

Under severe dusting conditions, this material may form explosive mixtures in air. Can react vigorously with oxidizing materials.

### SECTION V HEALTH HAZARD DATA

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#### Threshold Limited Value

TLV: 5mg/m<sup>3</sup>. (ACGIH 1992-93). Toxicity data: Oral-mice LD50 1,900mg/kg. Oral-rat: > 1,000mg/kg.

#### Effects of Overexposure

**SKIN:** Irritation or rash. **EYES:** Irritation, tearing, blurring of vision, slight to moderate transient corneal injury. **INHALATION:** Irritation to upper respiratory tract. **INGESTION:** May initially include irritation of mucosal surfaces. Exercise appropriate procedures to minimize potential hazards.

#### Emergency and First Aid Procedures

**SKIN:** Flush thoroughly with water, then wash with mild soap and water. **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 discomfort or illness develops, get medical attention. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. **INGESTION:** If swallowed, do NOT induce vomiting. If conscious, give several glasses of water to drink and call physician. Never give anything by mouth to an unconscious person.

### SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	
	Stable	X	Extreme temperature, heat, sparks or flame.

Incompatibility (Materials to Avoid)	Strong oxidants such as perchloric acid, nitric acid.
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Hazardous Decomposition Products	Slowly decomposes above boiling point. Thermal decomposition may release toxic and/or hazardous gases.
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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	Recover for use if not contaminated. Wearing proper safety equipment and with adequate ventilation, sweep up and place in a suitable container for disposal.
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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 chemical incinerator or contract for disposal in an approved chemical landfill.
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### SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	None needed in normal laboratory handling. If dusty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator.			
Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	No.

Protective Gloves	Rubber.	Eye Protection	Chemical safety glasses.
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Other Protective Equipment	Lab coat, apron, eye wash station, proper gloves, ventilation hood.
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### SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing	Store in a cool, dry place. Keep away from heat, sparks, flame. 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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Avoid dust generation. Use with adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid breathing dust. 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 9/14/98	Approved Michael Raszeja	Chemical Safety Coordinator	MR
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