



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

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

MSDS No. CC 335
Effective Date March 16, 1998

SECTION V HEALTH HAZARD DATA

CC 335

Threshold Limited Value

None established. (ACGIH 1992-93).

Effects of Overexposure

INHALATION: Nuisance dust symptoms: Respiratory irritation. Low risk allergen. **SKIN AND EYES:** May cause eye burns and can cause skin irritation. **INGESTION:** Generally recognized as safe. Long term overexposure may cause damage to tooth enamel.

Emergency and First Aid Procedures

EYES: Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. If irritation develops, get medical attention.
SKIN: Flush thoroughly with water, then wash with mild soap and water.
INHALATION: Remove to fresh air. Treat symptomatically. If illness or discomfort develops, get medical attention.

SECTION VI REACTIVITY DATA

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

Incompatibility (Materials to Avoid)	Strong oxidizing materials.
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Hazardous Decomposition Products	Thermal decomposition or burning will produce carbon dioxide and probably carbon monoxide.
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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. Sweep up and place in a suitable container for proper disposal. Flush spill area 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.
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Dissolve in water and flush to sewer with copious amounts of water or dispose of in an approved incinerator.

SECTION VIII SPECIAL PROTECTION INFORMATION

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

Protective Gloves	If gross contact - yes.	Eye Protection	Chemical safety glasses.
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Other Protective Equipment	Safety glasses, lab coat, eye wash station, and ventilation hood.
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SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing	Store in a cool, dry place, away from oxidizing materials. Wash thoroughly after handling.
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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. Aqueous solutions of citric acid can ferment and if in contact with reactive metal - iron, zinc or aluminum, forms hydrogen which may form explosive mixtures. Remove and wash contaminated clothing.
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For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision	No. 4	Date	3/16/98	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	CITRIC ACID, MONOHYDRATE
Chemical Synonyms	2-Hydroxy-1,2,3-Propane Tricarboxylic Acid
Formula	C ₆ H ₈ O ₇ •H ₂ O
Unit Size	Up to 2.5 Kg.
C.A.S. No.	5949-29-1

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

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

Health	0
Fire	1
Reactivity	0

HMIS *

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Citric Acid, Monohydrate	100%	None established.

CAUTION! IRRITANT TO EYES, SKIN

AND MUCOUS MEMBRANES.

SECTION III PHYSICAL DATA

Melting Point (°F)	Loses H ₂ O ~ 100°C (212°F)	Specific Gravity (H ₂ O = 1)	1.542
Boiling Point (°F)	Decomposes.	Percent Volatile by Volume (%)	Negligible as solid.
Vapor Pressure (mm Hg)	Negligible as solid.	Evaporation Rate (=1)	Not applicable.
Vapor Density (Air=1)	None listed.		
Solubility in Water	208.6 grams per 100 mL. water @ 25°C.		
Appearance & Odor	White, granular, crystalline powder; no odor. Deliquescent.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-volatile solid.	Flammable Limits in Air % by Volume	Unknown	Lower	Upper
Extinguisher Media	Water; carbon dioxide (CO ₂); dry chemical (ABC).				

SPECIAL FIREFIGHTING PROCEDURES

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

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products; can react vigorously with oxidizing materials.

D.O.T. NON-REGULATED.

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