



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

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MSDS No. TT 205
Effective Date May 24, 1999

SECTION V HEALTH HAZARD DATA

TT 205

Threshold Limited Value RTECS No. AJ7875000 Toxicity data: Orl-mus LD50 5640 mg/kg, ipr-mus LDLo 500 mg/kg. TWA: 1 ppm; 5 mg/m³ (ACGIH 1992-93).

Effects of Overexposure Target organs affected: Respiratory/gastrointestinal system. Ingestion may be fatal. A corrosive organic acid which rapidly penetrates and "fixes" tissue. Systemic effects are presumably secondary to gastrointestinal damage and to acidosis. Headache, nausea, dizziness, fatigue, weakness, coughing, chest pains. May cause severe irritation or burns to skin, eyes, mouth and stomach.

Emergency and First Aid Procedures **SKIN:** Flush thoroughly with water. Follow by irrigating exposed area with a sodium carbonate solution. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get immediate medical attention. **INGESTION:** If swallowed, do NOT induce vomiting. If conscious, drink large quantities of water. Follow with milk of magnesia, beaten eggs, or vegetable oil. Call physician immediately. Never give anything by mouth to an unconscious person. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid	Decomposed by heating with caustic alkalies. Avoid storing water solutions at concentrations below 30%. Decomposes on heating above 200°C.
	Stable	X		

Incompatibility (Materials to Avoid) Strong bases. Heating with Alkali yields chloroform and alkali carbonate. Alkali solutions in water can react with metals to liberate Hydrogen gas.

Hazardous Decomposition Products Chloroform, hydrogen chloride, carbon dioxide and carbon monoxide.

Hazardous Polymerization		Conditions to Avoid	Not applicable.
May Occur	Will Not Occur		
	X		

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Ventilate area. Wearing proper protective clothing, avoid making dust, neutralize with sodium bicarbonate sweep up and place in a suitable container for disposal. Flush area with soap and water.

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.

Neutralize with sodium bicarbonate and place in container for disposal and place in an approved incinerator equipped with an afterburner and scrubber.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None should be needed in normal laboratory handling. Should acid vapors occur, work in ventilation hood or wear a NIOSH/MSHA-approved chemical cartridge mask for acid vapors.

Ventilation	Local Exhaust	Yes.	Special	No.
	Mechanical (General)	Yes.	Other	No.

Protective Gloves	Rubber.	Eye Protection	Chemical safety glasses.
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Other Protective Equipment Lab coat, goggles, apron, proper gloves, ventilation hood, eye wash station.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Keep container tightly closed and store in a cool, dry place. If stored for a long time, acid may cake. Solutions are acidic. Wash thoroughly after handling.

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

Avoid eye and skin contact. Do not take internally. Use adequate ventilation. Remove and wash contaminated clothing.

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

Revision No. 4	Date	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 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	TRICHLOROACETIC ACID	 CHEMTREC 800-424-9300 Day 716-226-6177	Health	3
Chemical Synonyms	Trichloroethanoic acid		Fire	1
Formula	CCl ₃ COOH		Reactivity	1
Unit Size	up to 2.5 Kg.		HMIS *	
C.A.S. No.	76-03-9	NFPA HAZARD RATING	LEAST SLIGHT MODERATE HIGH EXTREME	0 1 2 3 4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Trichloroacetic Acid	98+%	5 mg/m ³ = 1 ppm
DANGER! HIGHLY CORROSIVE!		
HARMFUL IF SWALLOWED OR INHALED. CAUSES SEVERE		
BURNS. AVOID CONTACT WITH SKIN AND EYES.		

SECTION III PHYSICAL DATA

Melting Point (°F)	54-58°C (129-136°F)	Specific Gravity (H ₂ O = 1)	1.6298 at 61°/4°C
Boiling Point (°F)	196°C (384°F)	Percent Volatile by Volume (%)	Negligible as solid.
Vapor Pressure (mm Hg)	1 mm at 51.0°C	Evaporation Rate (Butyl Acetate =1)	Slower than ether.
Vapor Density (Air=1)	5.6		
Solubility in Water	Complete.		
Appearance & Odor	White deliquescent crystalline solid; characteristic acidic odor. Hygroscopic.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable.	Flammable Limits in Air % by Volume	N/A	Lower	Upper
Extinguisher Media	Water; alcohol foam; carbon dioxide (CO ₂); dry chemical.				

SPECIAL FIREFIGHTING PROCEDURES

Water in a straight hose stream will scatter and spread fire and should not be used. Use water spray to cool container. 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. 153)

UNUSUAL FIRE AND EXPLOSION HAZARDS

Can react vigorously with strong oxidizing materials. In fire conditions emits highly toxic fumes of hydrogen chloride when heated above 200°C (392°F).

D.O.T. TRICHLOROACETIC ACID, 8, UN 1839, PG II

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