



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

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MSDS No. TT 206
Effective Date May 24, 1999

SECTION V HEALTH HAZARD DATA TT 206

Threshold Limited Value OSHA PEL and ACGIH TLV are 350 ppm
TWA 450 ppm STEL for 1,1,1-Trichloroethane.

Effects of Overexposure **TARGET ORGANS AFFECTED:** Liver, kidneys, lungs, central nervous system. **SKIN:** Contact can cause defatting and when prolonged or repeated, can produce irritation and dermatitis. **EYES:** Contact can result in pain and irritation. **INHALATION:** Primarily a central nervous system depressant. Causes irritation of the respiratory system, dizziness, nausea, lightheadedness, headache, loss of coordination and equilibrium, unconsciousness, possible central nervous system damage and even death in confined and poorly ventilated areas.

Emergency and First Aid Procedures **INHALATION:** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get immediate medical attention. **(NOTE:** Advise physician **NOT** to use adrenalin.) **EYES:** Flush thoroughly with water for at least 15 minutes. If irritation persists, get medical attention. **INGESTION:** If conscious, give large quantities of water. Do **NOT** induce vomiting. Take immediately to a hospital or physician. Do **NOT** attempt to induce vomiting or give anything by mouth to an unconscious person. **NOTE TO PHYSICIAN:** Advise him/her **NOT** to give adrenalin. **SKIN:** Remove solvent wet clothing promptly. Wash contact area with warm soap and water. Get medical attention for irritation.

SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid	Excessive temperature and heat. Open flames, welding arcs. Ultra-violet radiation, water above 60°C.
	Stable	X		

Incompatibility (Materials to Avoid) This material can be hydrolyzed by water to form hydrochloric acid and acetic acid. It will react with strong caustic; such as caustic soda or caustic potash to form flammable or explosive material.

Hazardous Decomposition Products Chlorine, Phosgene and Hydrogen Chloride.

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 Using proper safety equipment (good ventilation, proper gloves); mop, wipe or soak up with absorbent materials. Evaporate outdoors or in exhaust hood or place absorbed waste in closed container for disposal by incineration. Do not allow to enter water supply sources.

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. Reclaim by filtration and distillation.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) For laboratory use, work in ventilation hood. If needed, wear a NIOSH/MSHA-approved self-contained breathing apparatus or respirator containing an organic vapor cartridge.

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

Protective Gloves Neoprene, Vitron. **Eye Protection** Chemical safety glasses.

Other Protective Equipment Goggles, lab coat, apron, eye wash station, ventilation hood, proper gloves, safety shower.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Store in a closed container in a cool, dry, well-ventilated area. Keep water free. Use caution in contact with or storage in aluminum and its alloys, metallic aluminum, and zinc powders must be avoided. 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. Use only in well-ventilated area. Avoid prolonged breathing of vapor. Avoid contact with eyes and prolonged contact with skin. Wash thoroughly after handling. 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 5/24/99	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	1,1,1-TRICHLOROETHANE	<p>CHEMTREC 800-424-9300 Day 716-226-6177</p> <p>NFPA HAZARD RATING</p> <table border="1"> <tr> <td>LEAST</td> <td>SLIGHT</td> <td>MODERATE</td> <td>HIGH</td> <td>EXTREME</td> </tr> <tr> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </table> <p>HMIS *</p> <table border="1"> <tr> <td>Health</td> <td>1</td> </tr> <tr> <td>Fire</td> <td>1</td> </tr> <tr> <td>Reactivity</td> <td>1</td> </tr> </table>	LEAST	SLIGHT	MODERATE	HIGH	EXTREME	0	1	2	3	4	Health	1	Fire	1	Reactivity	1
LEAST	SLIGHT		MODERATE	HIGH	EXTREME													
0	1		2	3	4													
Health	1																	
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Reactivity	1																	
Chemical Synonyms	Methyl Chloroform																	
Formula	CH ₃ CCl ₃																	
Unit Size	up to 3.785 Lt.																	
C.A.S. No.	71-55-6																	

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
1,1,1-Trichloroethane	99.0%	See Section V.
DANGER! POISON VAPOR HARMFUL.		
MAY BE HARMFUL IF SWALLOWED OR INHALED.		
MAY CAUSE IRRITATION TO SKIN AND EYES.		

SECTION III PHYSICAL DATA

Melting Point (°F)	-32.5°C (-25°F)	Specific Gravity (H₂O = 1)	1.3492 at 20°/4°C
Boiling Point (°F)	74.1°C (165°F)	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	100 mm at 20.0°C	Evaporation Rate (Ether = 1)	.35
Vapor Density (Air=1)	4.55		
Solubility in Water	0.07 gram per 100 mL. of water at 25°C.		
Appearance & Odor	Clear, water-white; characteristic odor resembling chloroform.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	None	Flammable Limits in Air % by Volume	Lower	Upper
			7.5%	15.0%

Extinguisher Media Water fog; water spray; carbon dioxide (CO₂); dry chemical; foam.

SPECIAL FIREFIGHTING PROCEDURES This material is nearly non-flammable. High energy, such as electric arc, is needed for ignition and the flame tends to go out when the ignition source is removed. Use a NIOSH/MSHA approved self-contained or air supplied breathing apparatus for protection against suffocating vapors and toxic and corrosive decomposition products.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 160)

UNUSUAL FIRE AND EXPLOSION HAZARDS Dangerous when heated to decomposition; it emits highly toxic and corrosive materials (phosgene and hydrogen chloride); can react with strong oxidizing materials. Vapors of this solvent may develop a flammable atmosphere in confined areas. Do not cut or weld container due to explosion hazard.

Autoignition Temperature: 537°C (998°F).

D.O.T. 1,1,1-TRICHLOROETHANE, 6.1, UN 2831, PG III

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