



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. DD 32  
Effective Date February 20, 1999

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	1,2-DICHLOROETHANE	 <b>CHEMTREC</b> <b>800-424-9300</b> Day 716-226-6177 <b>NFPA HAZARD RATING</b> LEAST SLIGHT MODERATE HIGH EXTREME 0 1 2 3 4 <b>HMIS*</b> HIGH EXTREME 3 4
<b>Chemical Synonyms</b>	Ethylene Dichloride	
<b>Formula</b>	C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	
<b>Unit Size</b>	up to 180 Kg.	
<b>C.A.S. No.</b>	107-06-2	

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
1,2-Dichloroethane	100%	See Section V.
<b>DANGER! FLAMMABLE LIQUID!</b> <b>POISON</b>		
<b>HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CAUSES</b>		
<b>SKIN AND EYE IRRITATION. MAY BE FATAL IF SWALLOWED.</b>		

## SECTION III PHYSICAL DATA

Melting Point (°F)	Freezing point -35.7°C (-31°F)	Specific Gravity (H <sub>2</sub> O = 1)	1.241-1.313 @ 25°C
Boiling Point (°F)	83°C (183°F)	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	62 mm Hg @ 20°C	Evaporation Rate (Butyl Acetate = 1)	6.50
Vapor Density (Air=1)	3.4		
Solubility in Water	Slightly soluble.		
Appearance & Odor	Clear, colorless, heavy liquid; odor resembling that of chloroform.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	13°C (56°F) TCC	<b>Flammable Limits in Air % by Volume</b>	Lower 6.2%	Upper 15.9%
<b>Extinguisher Media</b>	Water spray; carbon dioxide (CO <sub>2</sub> ); dry chemical (ABC); foam.			

<b>SPECIAL FIREFIGHTING PROCEDURES</b>	Blanketing effect needed to smother fire. Water may be ineffective but can be used to cool fire exposed containers. In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  Ignition Temperature: 413°C (775°F)
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<b>UNUSUAL FIRE AND EXPLOSION HAZARDS</b>	It is a dangerous fire hazard and a moderate explosion hazard when exposed to heat or flame. Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors or other ignition sources at locations distant from material handling point.
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(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 129)

D.O.T. **ETHYLENE DICHLORIDE, 3, UN 1184, PG II**

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

## SECTION V HEALTH HAZARD DATA DD 32

<b>Threshold Limited Value</b>	RTECS No. KI0525000 Threshold Limit Value (TLV): 10 ppm (TWA), 15 ppm - STEL, (ACGIH 1992-93). Toxicity: LDLo orl-human 286 mg/kg. Orl-rat LD50 670 mg/kg.
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<b>Effects of Overexposure</b>	<b>TARGET ORGANS AFFECTED:</b> Liver, kidneys. <b>INGESTION/INHALATION:</b> Causes respiratory tract irritation. Prolonged or repeated exposure to high vapor concentrations causes nausea, vomiting, central nervous system depression, gastrointestinal upset, pulmonary edema and changes in the blood, liver and kidney. <b>EYES:</b> Vapors causes irritation. Contact with the liquid causes pain, irritation, lacrimation and may result in eye injury. <b>SKIN:</b> May be harmful if absorbed through the skin. Causes irritation or on prolonged contact, can cause burns.
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<b>Emergency and First Aid Procedures</b>	<b>INGESTION:</b> If swallowed, if conscious, give one or two glasses of water to drink, induce vomiting and call physician. Repeat until vomit fluid is clear. Never give anything by mouth to an unconscious person. <b>EYES:</b> Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. <b>INHALATION:</b> Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician immediately. <b>SKIN:</b> Flush thoroughly with water, then wash with mild soap and water.
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## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>	<b>Conditions to Avoid</b>	Excessive temperature and heat.
	<b>Stable</b>	X	

<b>Incompatibility (Materials to Avoid)</b>	Strong oxidizers, strong alkalis. Contact with aluminum or ketone solvents may cause vigorous reaction.
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<b>Hazardous Decomposition Products</b>	Combustion will produce carbon dioxide and probably carbon monoxide, hydrogen chloride, phosgene, or various hydrocarbons.
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<b>Hazardous Polymerization</b>	<b>Conditions to Avoid</b>
<b>May Occur</b>	<b>Will Not Occur</b>
	X
	Not applicable.

## SECTION VII SPILL OR LEAK PROCEDURES

<b>Steps to be taken in case material is released or spilled</b>	Remove all sources of ignition. Wear proper safety equipment. Absorb material in vermiculite or other suitable absorbent and place in proper container for disposal. Ventilate area and wash spill site with soap and water.
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<b>Waste Disposal Method</b>	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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	Dispose of in an approved incinerator equipped with an afterburner and scrubber or contract with a licensed chemical waste disposal service.
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## SECTION VIII SPECIAL PROTECTION INFORMATION

<b>Respiration Protection (Specify Type)</b>	In the laboratory work in a ventilation hood or wear a NIOSH/MSHA-approved self-contained breathing apparatus.
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<b>Ventilation</b>	<b>Local Exhaust</b>	<b>Recommended.</b>	<b>Special</b>	<b>No.</b>
	<b>Mechanical (General)</b>	Yes.	<b>Other</b>	No.

<b>Protective Gloves</b>	Butyl or neoprene.	<b>Eye Protection</b>	Goggles and/or face shield.
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<b>Other Protective Equipment</b>	Lab coat, apron, eye wash station, proper gloves, ventilation hood.
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## SECTION IX SPECIAL PRECAUTIONS

<b>Precautions to be Taken in Handling &amp; Storing</b>	Store in a cool, dry, well-ventilated area away from fire hazards. Outside or detached storage preferable. Protect from physical damage. Avoid breathing vapors. Use with adequate ventilation. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling.
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<b>Other Precautions</b>	Read label on container before using. Do not wear contact lenses when working with chemicals.
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	(NCI) Suspected Carcinogen-Based on tests with laboratory animals. Remove and wash contaminated clothing. Destroy contaminated shoes.
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For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

<b>Revision</b> No. 2	<b>Date</b> 2/20/99	<b>Approved</b> Michael Raszeja	<b>Chemical Safety Coordinator</b> MR
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