



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

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MSDS No. TT 240
Effective Date July 1, 1998

SECTION V HEALTH HAZARD DATA

TT 240

Threshold Limited Value None established by (ACGIH 1992-93). The acute oral LD50 is 283 mg/kg in female rats and 317 mg/kg in male rats.

Effects of Overexposure **INGESTION:** Chlorobutanol is a central nervous system depressant that has been used as a sedative and hypnotic. Repeated ingestion of the material may be addictive. Ingestion of the material in large quantities is capable of producing narcosis, unconsciousness and death. **SKIN:** May produce local anesthesia. **EYE CONTACT:** Non-irritant to rabbit eye. **INHALATION:** Specific data is not available. Exercise appropriate procedures to minimize potential hazards.

Emergency and First Aid Procedures **INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink. Induce vomiting. Repeat until vomit fluid is clear. Call physician. If victim is unconscious or convulsing, do not induce vomiting or give anything by mouth. **SKIN:** Flush all effected areas with plenty of water for several minutes. Seek medical attention if skin irritation occurs. **EYE CONTACT:** Flush the eyes thoroughly with plenty of running water for 15 minutes, occasionally lifting upper and lower eyelids. Seek medical attention if eye irritation occurs. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid	Avoid prolonged exposure to air, excessive temperature and heat.
	Stable	X		

Incompatibility (Materials to Avoid) Strong oxidizers.

Hazardous Decomposition Products When heated to decomposition, emits toxic fumes of phosgene, hydrogen chloride, carbon dioxide and/or 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 No emergency results from spillage. However, spills should be cleaned up promptly using the following procedures: Sweep up spilled material being careful not to create dust. Sweep up and place in a suitable container for disposal by incineration. Wash spill 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.

Dispose of in accordance with federal, state and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None should be needed in normal laboratory handling at room temperature. If dusty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator.

Ventilation	Local Exhaust	None needed.	Special	No.
	Mechanical (General)	Recommended.	Other	No.

Protective Gloves Rubber, for repeated contact. **Eye Protection** Chemical safety glasses.

Other Protective Equipment Lab coat, eye wash station, proper gloves, ventilation hood.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Containers should be stored in a cool, dry, well-ventilated area away from flammable materials and sources of heat or flame. Avoid prolonged exposure to air. Wash thoroughly after handling.
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.
Exercise due caution to prevent damage to or leakage from the container. Use with 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 7/1/98	Approved Michael Raszeja	Chemical Safety Coordinator MR
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The information contained herein is furnished without warranty of any kind. Employees 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	CHLORETONE (CHLOROBUTANOL)	 <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>2</td> </tr> <tr> <td>Fire</td> <td>1</td> </tr> <tr> <td>Reactivity</td> <td>0</td> </tr> </table>	LEAST	SLIGHT	MODERATE	HIGH	EXTREME	0	1	2	3	4	Health	2	Fire	1	Reactivity	0
LEAST	SLIGHT		MODERATE	HIGH	EXTREME													
0	1		2	3	4													
Health	2																	
Fire	1																	
Reactivity	0																	
Chemical Synonyms	1,1,1-Trichloro-2-Methyl-2-Propanol																	
Formula	C ₄ H ₇ Cl ₃ O•1/2H ₂ O																	
Unit Size	up to 2.5 Kg.																	
C.A.S. No.	6001-64-5																	

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Chloretone (Chlorobutanol)	100%	None established.
WARNING! HARMFUL IF SWALLOWED.		

SECTION III PHYSICAL DATA

Melting Point (°F)	76°C (169°F)	Specific Gravity (H ₂ O = 1)	N/A
Boiling Point (°F)	167°C (332.6°F)	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	N/A	Evaporation Rate (=1)	Sublimes easily.
Vapor Density (Air=1)	N/A		
Solubility in Water	0.8 grams per 100 mL. cold water; very soluble in hot water.		
Appearance & Odor	White crystals; camphor-like odor.		

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	Foam; carbon dioxide; dry chemical.				

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire hazard slight when exposed to heat or flame. Dangerous when heated to decomposition, it emits highly toxic fumes of phosgene and hydrogen chloride; can react with oxidizing materials.

D.O.T. NON-REGULATED.

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