



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

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MSDS No. PP 120
Effective Date April 8, 1999

SECTION V HEALTH HAZARD DATA PP 120

Threshold Limited Value RTECS No. SJ3325000 Toxicity data for phenol solid: oral Human LDLo: 140 mg/kg. Oral-rat LD50 317 mg/kg. (Skin Values) TWA 5 ppm; 19 mg/m³ (ACGIH 1992-93).

Effects of Overexposure **TARGET ORGANS AFFECTED:** Lung, liver, heart, kidneys. **INHALATION:** In animals, prolonged inhalation of vapors (30-60 ppm) has induced respiratory difficulties, lung damage, loss of weight and paralysis. Breathing of phenol vapors can cause irritation of the mucous membranes. **INGESTION:** Ingestion of phenol causes intense burning of mouth and throat followed by marked abdominal pain and distress. Lethal oral doses of phenol for adults have ranged from 1 to 10 gm; for infants 50 to 500 mg. Cyanosis, muscular weakness and collapse may occur within a few minutes after ingestion. Tremors and convulsions are occasionally observed. **SKIN:** Phenol is rapidly absorbed through the skin. A serious burn or poisoning through skin absorption may occur if the chemical is not removed promptly and thoroughly. If the phenol is left on the skin the exposed area will burn. **EYES:** Exerts a strong corrosive action. May cause corneal damage or blindness.

Emergency and First Aid Procedures Speed in removing phenol is of primary importance. **INGESTION:** If swallowed, do NOT induce vomiting without specific instructions from physician. Get immediate medical attention. Keep victim warm and quiet. **SKIN:** Flush thoroughly with water while removing contaminated clothing and shoes. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get immediate medical attention. **INHALATION:** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration administered by trained personnel. Get immediate medical attention.

SECTION VI REACTIVITY DATA

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

Incompatibility (Materials to Avoid) Avoid contact with strong oxidizers, halogens and calcium hypochlorite. Hot phenol attacks aluminum, lead, magnesium and zinc and the phenol is discolored. The discoloration of phenol is catalyzed by iron and copper.

Hazardous Decomposition Products Complete combustion results in the formation of carbon dioxide and water vapor; incomplete combustion can yield carbon monoxide. Avoid breathing vapors or gases released on exposure to high temperature or fire.

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 Allow only trained and protected personnel in area. Wearing proper protective equipment and with good ventilation, remove all sources of ignition. Scoop up or if liquid, absorb in sand, earth, sawdust, vermiculite. Place in fiber carton for incineration. Wash spill area well 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 an approved incinerator or contract with a licensed waste disposal service.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) Use in a well-ventilated area. Work in fume hood. If necessary use a NIOSH/MSHA-approved special cartridge respirator.

Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	Adequate to maintain below exposure limit.

Protective Gloves Neoprene. **Eye Protection** Splash proof goggles.

Other Protective Equipment Smock, apron, eye wash station, ventilation hood, proper gloves, fire extinguisher. Face shields may be worn in addition to safety goggles.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing See Section V above. Do not handle with bare hands. Store in a cool, dry well-ventilated place away from fire hazards and protect from light. 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. Distill only under inert atmosphere. Threshold (Odor) is 0.3 ppm. Solution turns pink or red if not perfectly pure. Avoid breathing vapors. Use only in well-ventilated area. Avoid contact with skin, eyes and clothing. 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 4/8/99	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	PHENOL, LIQUID 88%-90%	 <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>3</td> </tr> <tr> <td>Fire</td> <td>2</td> </tr> <tr> <td>Reactivity</td> <td>1</td> </tr> </table>	LEAST	SLIGHT	MODERATE	HIGH	EXTREME	0	1	2	3	4	Health	3	Fire	2	Reactivity	1
LEAST	SLIGHT		MODERATE	HIGH	EXTREME													
0	1		2	3	4													
Health	3																	
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Chemical Synonyms	Carbolic Acid																	
Formula	Mixture. See Section II.																	
Unit Size	up to 5 gal.																	
C.A.S. No.	Mixture. See Section II.																	

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Phenol: (CAS No. 108-95-2)	88%-90%	See Section V.
Water: (CAS No. 7732-18-5)	10%-12%	None established.

DANGER! POISON  **CORROSIVE! MAY BE FATAL IF SWALLOWED OR ABSORBED THROUGH SKIN.**
CAUSES SEVERE SKIN AND EYE BURNS. COMBUSTIBLE. HAZARDOUS LIQUID.

SECTION III PHYSICAL DATA

Melting Point (°F)	5-17°C (41-62°F)	Specific Gravity (H₂O = 1)	1.056 @ 25/4°C
Boiling Point (°F)	181°C (357°F) pure phenol	Percent Volatile by Volume (%)	Approx. 0 at 20°C
Vapor Pressure (mm Hg)	2.51-4.04 @ 25°C	Evaporation Rate (Butyl Acetate =1)	< 0.03
Vapor Density (Air=1)	3.24 pure phenol		
Solubility in Water	Complete.		
Appearance & Odor	Colorless liquid; characteristic odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	90-101°C (196-215°F)	Flammable Limits in Air % by Volume	Lower: 1.7	Upper: 8.6
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Extinguisher Media Use water spray; carbon dioxide (CO₂); dry chemical (ABC); foam.

SPECIAL FIREFIGHTING PROCEDURES In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing including eye protection. Avoid skin and eye contact; extremely corrosive to all body tissue. Avoid splashing personnel with phenol.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 153)

UNUSUAL FIRE AND EXPLOSION HAZARDS

Combustible liquid. Yields flammable vapors when heated, which will form explosive mixtures with air. Phenol discolors above 50°C. Vapors are flammable and toxic.
Ignition Temperature: 1319°F (715°C) (For pure phenol).

D.O.T. PHENOL SOLUTIONS, 6.1, UN 2821, PG II

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