

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

**SECTION I**

MANUFACTURER'S NAME

CELANESE CHEMICAL COMPANY

EMERGENCY TELEPHONE NO.

512-584-3511

ADDRESS (Number, Street, City, State, and ZIP Code)

1211 AVE. OF AMERICAS, NEW YORK, N.Y. 10036

CHEMICAL NAME AND SYNONYMS

1-Propanol; n-Propyl Alcohol; Ethylcarbinol

TRADE NAME AND SYNONYMS

N-Propanol; n-Propyl Alcohol

CHEMICAL FAMILY

Alcohols

FORMULA

C₃H₇OH**SECTION II - HAZARDOUS INGREDIENTS—NOT APPLICABLE**

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	760 mm Hg	207	SPECIFIC GRAVITY (H ₂ O = 1)	@ 20/20°C	0.8046
VAPOR PRESSURE (mm Hg)	@ 20°C	15	PERCENT VOLATILE BY VOLUME (%)		100%
VAPOR DENSITY (AIR = 1)		2.07	EVAPORATION RATE (BuAc = 1)		1.3
SOLUBILITY IN WATER		Complete			

APPEARANCE AND ODOR

Water-White liquid; mild and nonresidual odor**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT (Method used)

84°F., T.O.C.; 71°F., C.C.

FLAMMABLE LIMITS

% by volume in air**2.1^l****13.5^u**

EXTINGUISHING MEDIA

Carbon dioxide or dry chemical for small fires. Alcohol foam for large fires.

SPECIAL FIRE FIGHTING PROCEDURES

Addition of water will reduce intensity of flames.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N ne**RECEIVED****AUG-2-1976**

SECTION V - HEALTH HAZARD DATA

PERMITTED LIMIT VALUE

200 ppm

EFFECTS OF OVEREXPOSURE

Contact with eyes is extremely irritating and may cause burns. Breathing vapors will be irritating to the nose and throat. In high concentrations, may cause nausea, dizziness, headache, and stupor.

EMERGENCY AND FIRST AID PROCEDURES

Flush skin and eye contact at once with plenty of water. Get medical care for eyes.

Remove inhalation exposure case to fresh air. Call a physician.

SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

STABLE

Heat and flames

X

INCOMPATIBILITY (Materials to avoid)

None

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition may produce carbon monoxide and/or carbon dioxide

HAZARDOUS
POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

WILL NOT OCCUR

None

X

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Eliminate all sources of ignition. Flush heavily with water. Dike large spills and dump to salvage tank. Notify authorities in the event of major spills.

WASTE DISPOSAL METHOD

Incinerate in a furnace

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

Air-supplied respirator in confined areas.

VENTILATION

LOCAL EXHAUST

SPECIAL

MECHANICAL (General)

Preferable

OTHER

Acceptable

PROTECTIVE GLOVES

Plastic gloves

EYE PROTECTION

Coverall goggles

OTHER PROTECTIVE EQUIPMENT

Impermeable apron and boots; eye bath and safety shower.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid breathing vapor. Avoid contact with eyes. Keep away from heat, sparks, and fire. Do not leave container open

OTHER PRECAUTIONS

None

Pennwalt MATERIAL SAFETY DATA SHEET "ESSENTIALLY SIMILAR" TO OSHA FORM 20 FORM 4040 (Rev. 9-80) ADDRESS: Pennwalt Corporation Three Parkway Philad lphia, PA 19102			
PRODUCT IDENTIFICATION	Pennwalt Product Name Pentaphen 67		Pennwalt Code No. 0067
	Chemical Name and Molecular Formula Phenol, 4-(1,1-dimethylpropyl)- $C_{11}H_{16}O$		
	Synonyms 4-tert-Amylphenol, p-t-Pentylphenol, [REDACTED]		
HAZARDOUS INGREDIENTS	MATERIALS OR COMPONENTS para-tertiary-amyl phenol		% w/w 98-99%
	HAZARD DATA (TLV, LD50, LC50, etc.) See Toxicity Section		
SHIPPING INFORMATION	Description on Shipping Papers: Amyl Phenol Shipping Containers: Plastic Bags, 50 lbs. net Fiber Drums, 175 lbs. net		
PHYSICAL PROPERTIES	Boiling Point/Range 265 °C 509 °F		Melting Point °C °F
	Freezing Point 91.5 °C 196.7 °F		Molecular Weight (Calculated) 164.3
	Specific Gravity (H ₂ O=1) of melt .93 @ 100 °C		Vapor Pressure (mm Hg) @ °C @ °F
	Vapor Density (Air=1) 5.7		Evaporation Rate ☐ Ether = 1 ☐ Water = 1 ☐ Butylacetate = 1
FIRE AND EXPLOSION DATA	Solubility in H ₂ O Moderate		% Volatiles by Volume 0
	Appearance and Odor White flakes - phenolic odor		Other
	Flash Point °C 250 °F P-M CC		Flammable Limits Lower % Upper
	Autoignition Temperature/Fire Point °C °F		
REACTIVITY DATA	EXTINGUISHING MEDIA ☐ Water-spray ☐ Water-fog ☐ Water stream ☐ CO ₂ ☐ Dry chemical ☐ Alcohol foam ☐ Foam ☐ Earth or sand		
	SPECIAL FIRE FIGHTING PROCEDURES ☐ Do not enter building ☐ Allow fire to burn ☐ Water may cause frothing ☐ Do not use water		
	UNUSUAL FIRE AND EXPLOSION HAZARDS ☐ Dust explosion hazard ☐ Sensitive to shock ☐ Contamination ☐ Temperature ☐ Other (specify):		
	STABILITY ☒ Stable ☐ Unstable		
SPILL OR LEAK	CONDITIONS CONTRIBUTING TO INSTABILITY ☐ Thermal decomposition ☐ Photo degradation ☐ Polymerization ☐ Contamination		
	INCOMPATIBILITY - Avoid contact with ☐ Strong acids ☐ Strong alkalis ☒ Strong oxidizers ☐ Other (specify):		
	HAZARDOUS DECOMPOSITION PRODUCTS - THERMAL AND OTHER (IM)		
	CONDITIONS TO AVOID ☐ Heat ☐ Open flames ☐ Sparks ☐ Ignition sources ☐ Other (specify):		
WASTE DISPOSAL METHOD	STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED ☐ Flush with water ☐ Absorb with sand or inert material ☐ Neutralize ☒ Sweep or scoop up and remove ☐ Keep upwind, Evacuate enclosed spaces. ☐ Prevent spread or spill		
	WASTE DISPOSAL METHOD - Consult federal, state, or local authorities for proper disposal procedures.		

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CONTINUED ON REVERSE SIDE

TOXICITY	Oral (acute)	LD ₅₀ 1830 mg/kg rat.		
	Dermal (acute)	LD ₅₀ 2000 mg/kg rabbit. Irritant to rabbit skin.		
	Eye	Unwashed: Irreversible cornea damage.	Inhalation (acute)	N.A.
	Washed: Reversible conjunctival inflammation.			
Chronic, Subchronic, etc.				
HEALTH HAZARD INFORMATION	PERMISSIBLE EXPOSURE LIMIT (Specify if TLV/TWA or Ceiling (c))			
	ACGIH 19		OSHA 19	
	Other: Not established			
	IRRITATION	☒ Skin	☐ Severe	☒ Moderate
		☒ Eye (washed)	☐ Severe	☐ Moderate
				☐ Mild (transient)
	CORROSIVITY	☐ Skin	☐ 4 hrs. (DOT)	☐ 24 hrs. (CPSC)
		☒ Eye	☒ May cause blindness	See Toxicity Section (above).
	SENSITIZATION	☐ Skin	☐ Respiratory	☐ Allergen
			☐ Narcotic effect	☐ Cyanosis
			☐ Asphyxiant	
HEALTH HAZARD INFORMATION	LUNG EFFECTS (Specify):			
	Fumes from molten product and dust may cause discomfort.			
	OTHER (Specify):			
	☐ Repeated contact - skin defatter	☐ Other (Specify):		
	INGESTION	☐ Induce vomiting	☐ Do NOT induce vomiting	☐ Give plenty of water
			☐ Get medical attention	☐ Other (Specify):
	DERMAL	☒ Flush with soap and water	☒ Get medical attention	☒ Other
			Follow by swabbing contaminated skin with cotton soaked in polyethylene glycol for at least 10 minutes.	
	EYE CONTACT	☒ Flush with plenty of water for at least 15 minutes	☒ Get medical attention	☐ Other (Specify):
	INHALATION	☐ Remove to fresh air	☐ If not breathing, give artificial respiration	☐ Give oxygen
		☐ Get medical attention	☐ Other (Specify):	
SPECIAL PROTECTION INFORMATION	VENTILATION REQUIREMENTS - Always maintain exposure below permissible exposure limits			
	☐ Consult an industrial hygienist or environmental health specialist	☐ Local exhaust	☒ Use with adequate ventilation	☐ Check for air contaminant and oxygen deficiency
	☒ Other (Specify): Avoid breathing dust from solid product or fumes from molten product			
	EYE	☐ Safety glasses	☐ Face shield	☒ Goggles
	HAND (GLOVE TYPE)	☐ Polyvinyl chloride	☐ Neoprene	☐ Butyl rubber
		☐ Polyvinyl alcohol	☐ Polyethylene	☒ Other (Specify): Any of these
	RESPIRATOR TYPE - Use only NIOSH / MESA approved equipment	☐ Self-contained	☐ Supplied air	☐ Can or cartridge gas or vapor
		☒ Filter - dust,	☐ Other (Specify):	
	OTHER PROTECTIVE EQUIPMENT	☐ Rubber boots	☐ Apron	☐ Other (Specify):
	SPECIAL PRECAUTIONS	PRECAUTIONARY LABELING		
☒ Wash thoroughly after handling		☒ Do not get in eyes, on skin or clothing	☒ Do not breathe dust, vapor,	☐ Keep container closed
		☐ Keep away from heat, sparks, and open flames	☐ Store in tightly closed containers	
☐ Do not store near combustibles		☐ Keep from contact with clothing and other combustible materials	☐ Empty container may contain hazardous residues	☐ Use explosion proof equipment
		☐ Other (Specify):		
Other handling and storage conditions				

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Prepared by

Date

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3/3/82

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PLEASE
NOTE

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