

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Liquified Phenol 88%
CAS number	See section 3
Synonyms	Carbolic Acid

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory Chemicals
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1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

H301: Toxic if swallowed.
H311: Toxic in contact with skin.
H314: Causes severe skin burns and eye damage.
H331: Toxic if inhaled.
H341: Suspected of causing genetic defects.
H373: May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310: Immediately call a POISON CENTER or doctor.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P314: Get medical attention if you feel unwell.
P363: Wash contaminated clothing before reuse.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Vesicant, rapidly absorbed through skin.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Phenol	Carbolic Acid	108-95-2	88%
Water	-	7732-18-5	12%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice	Show this sheet to the physician in attendance.
If inhaled	TOXIC IF INHALED. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
In case of skin contact	TOXIC IN CONTACT WITH SKIN. CAUSES SEVERE SKIN BURNS. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.
In case of eye contact	CAUSES SEVERE EYE DAMAGE. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.
If swallowed	TOXIC IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation causes sore throat, burning sensation, cough, dizziness, headache, nausea, vomiting, shortness of breath, labored breathing, unconsciousness. Symptoms may be delayed. Ingestion causes abdominal pain, convulsions, diarrhea, shock or collapse, sore throat. EASILY ABSORBED! Contact with skin causes serious skin burns, numbness, convulsions, collapse, unconsciousness. Contact with eyes causes pain, redness, loss of vision, severe deep burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Carbon dioxide, dry chemical, dry sand, alcohol foam.
Unsuitable extinguishing media	None identified.

5.2 Specific hazards arising from the substance or mixture

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full suit.

5.3 Special protective equipment and precautions for firefighters

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Yields flammable and toxic vapors when heated. Water containing phenol may cause severe chemical burns. Above 79°C explosive vapor/air mixtures may be formed.

5.4 Further information

Flash Point 90 - 101°C (196 - 215°F)

Autoignition Temperature No data available

Explosion limits

Upper 8.60%

Lower 1.70%

Sensitivity to Mechanical Impact No data available

Sensitivity to Static Discharge No data available

NFPA

Health	Flammability	Instability	Physical hazards
4	2	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

6.2 Environmental precautions

Avoid runoff into storm sewers and ditches which lead to waterways.

6.3 Methods and materials for containment and cleaning up

Remove all sources of ignition. Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

6.4 Reference to other sections

Refer to protective measures listed in Sections 7 and 8. See section 13 for proper disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion.

Hygiene measures

Wash thoroughly after handling. Remove and wash clothing before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in a cool, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Incompatibilities

Avoid contact with strong oxidizers, halogens and calcium hypochlorite. Hot phenol attacks aluminum, lead, magnesium and zinc and the phenol is discolored. The discolorization of phenol is catalyzed by iron and copper.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Phenol	TWA	5 ppm 19 mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
Phenol	TWA	5 ppm 19 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Phenol	TWA	5 ppm 19 mg/m ³

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material.

Personal protective equipment

Eye/face protection

Personnel should wear safety glasses, goggles, or faceshield

Skin protection

Personnel should wear lab coat or apron, and appropriate protective gloves.

Body Protection

Personnel should wear lab coat or apron, and appropriate protective gloves.

Respiratory protection

Use adequate ventilation to keep airborne concentrations low. Use only in well ventilated area. Work in fume hood and wear a NIOSH/MSHA-approved respirator.

Control of environmental exposure

Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear to Caramel
Odor	Sweet aromatic odor
Odor Threshold	No data available
pH	No data available
Melting Point/Range	5 - 17°C (41 - 62°F)
Boiling Point/Range	181°C (358°F) (pure phenol)
Evaporation Rate	<0.03
Flammability (solid)	No data available
Flammability or explosive limit	
Upper	1.70%
Lower	8.60%
Vapor Pressure	2.51 - 4.04 @ 25°C
Vapor Density	3.24 (pure phenol)
Density	1.05 @ 25/4°C
Solubility	Completely soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No data available
Decomposition Temp	No data available
Viscosity	No data available
Molecular Formula	Mixture
Molecular Weight	Mixture
VOC Content(%)	No data available
Oxidizing properties	No data available

9.2 Other safety information No information available

SECTION 10: Stability and reactivity

10.1 Reactivity

Can be reactive with incompatibilities.

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Will not occur under normal processing.

10.4 Conditions to avoid

Avoid overheating. Vapors flammable and toxic. Discolors upon prolonged heating.

10.5 Incompatible materials

Avoid contact with strong oxidizers, halogens and calcium hypochlorite. Hot phenol attacks aluminum, lead, magnesium and zinc and the phenol is discolored. The discolorization of phenol is catalyzed by iron and copper.

10.6 Hazardous decomposition products

Carbon oxides and phenol fumes.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Phenol	317 mg/kg (rat)	669 mg/kg (Rat)	-

Skin corrosion/irritation

No data available.

Serious eye damage/eye irritation

No data available.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Phenol	108-95-2	Group 3	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

No data available.

Specific target organ toxicity - repeated exposure

No data available.

Reproductive toxicity

No data available.

Chronic effects

No data available.

11.2 Additional Information

Phenol has been found to cause cancer in laboratory animals. May cause adverse mutagenic or teratogenic effects. Exercise appropriate procedures to minimize potential hazards. AVOID ALL CONTACT

SECTION 12: Ecological information

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

SECTION 14: Transport information

DOT (US)

UN Number	UN2821
Proper Shipping name	Phenol Solutions
Hazard Class	6.1
Packaging Group	II

IMDG

UN Number	UN2821
Proper Shipping name	Phenol Solutions
Hazard Class	6.1
Packaging Group	II

IATA

UN Number	UN2821
Proper Shipping name	Phenol Solutions
Hazard Class	6.1
Packaging Group	II

SECTION 15: Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)
Phenol: 1,000 lbs (454 kg) RQ.

SARA 304 Emergency release notification
Phenol: 1,000 lbs (454 kg) RQ.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance
Phenol: 500/10,000 RQ.

SARA 311/312 Hazardous

See section 2 for hazard classifications.

SARA 313 (TRI reporting)

Phenol: Listed.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not listed/applicable.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not listed/applicable.

Safe Drinking Water Act

Phenol: 1,000,000 lbs (454 kg) RQ.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Phenol: Listed.

US state regulations**US. Massachusetts RTK - Substance List**

Not listed.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Phenol: Listed.

Water: Listed.

California Proposition 65

Not listed.

SECTION 16: Other information

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SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.