

Safety Data Sheet

Phenol Solution 40% in Ethanol

Revision Date: 1/1/2020

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Phenol Solution 40% in Ethanol
Product code: 400689

Supplier: EDM 3, LLC
3611 St Johns Bluff Road, Suite 1
Jacksonville, FL 32224
800-638-2625
Monday-Friday: 8:00 -5:00 PM

Synonym: None.
Material uses: Laboratory Reagent.
Validation date: 1/1/2020

In case of a medical emergency or a spill, call: INFOTRAC at 1-800-535-5053 (Domestic within the USA and Canada)
or 1-352-323-3500 (International callers may call collect), 24

hours/day,

7 days/week.

2. HAZARDS IDENTIFICATION

Emergency Overview

Target Organs: Eyes, Kidney, Liver, Heart, Central Nervous System

GHS Label Elements: Pictogram



Signal Word **Danger!**

Hazardous Statement(s)

H225: Highly flammable liquid and vapor
H301: Toxic if Swallowed (Cat 3)
H334: Respiratory Sensitization (Cat 1B)
H337: May cause damage to organs (Cat 2)
H318: Causes serious eye damage (Cat 1)
H402: Harmful to aquatic life
H411: Toxic to aquatic life with long lasting effects

Potential Health Effects

Inhalation - May be harmful if inhaled. Causes respiratory tract irritation.
Skin - May be harmful if absorbed through skin. Causes skin irritation.
Eyes - Causes eye irritation. Ingestion - May be harmful if swallowed.

Precautionary Statement(s)

P260: Do not breathe fumes/vapors
P264: Wash exposed skin thoroughly after handling
P273: Avoid release to environment
P280: Wear protective gloves, protective clothing, eye protection, face protection

HMIS Classification

Health hazard: 3
Fire: 3
Reactivity Hazard: 0

NFPA Rating

Health hazard: 3
Flammability: 3
Physical hazards: 0

Target Organs

Central Nervous System (CNS), Skin, Liver, Kidney, Spleen, Blood

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	%w/v
Phenol	108-95-2	40
Ethanol	64-17-5	Balance

4. FIRST AID MEASURES

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: *Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.*

First-aid measures after skin contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity: Thermal decomposition generates: Corrosive vapors.

5.3. Advice for firefighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment: Gloves. Safety glasses. Combined gas/dust mask with filter type B/P3.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe mist, vapors, spray. Obtain special instructions before use. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood.

Hygiene measures: Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Comply with applicable regulations.

Storage conditions: Keep container closed when not in use. Protect from sunlight. Store in a well-ventilated place.

Incompatible products: Strong oxidizers. Strong reducing agents. Strong bases.

Incompatible materials: Sources of ignition. Direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult local authorities for acceptable exposure limits.

Component	Source	Type	Value	Note
Phenol Solution	ACGIH	TWA	19 mg/m ³	
	ACGIH	TWA	5 ppm	
	OSHA	PEL (TWA)	19 mg/m ³	
	OSHA	PEL (TWA)	5 ppm	
	IDLH	US IDLH	250 ppm	
	NIOSH	REL (TWA)	19 mg/m ³	
	NIOSH	REL (TWA)	5 ppm	
	NIOSH	REL (ceiling)	60 mg/m ³ 15 min	
Ethanol	NIOSH	REL (ceiling)	15.6 ppm 15 min	
	ACGH	STEL	1000 ppm 15 min	
	OSHA	PEL (TWA)	1000 ppm 8 hours	
	NIOSH	REL (TWA)	1000 ppm 10 hours	

Personal protective equipment: Safety glasses. Gloves. Protective clothing. High gas/vapor concentration: gas mask with filter type B.

Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or face shield.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: Wear appropriate mask. Gas mask with filter type B.

Other information: Do not eat, drink or smoke during use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Slight Yellow Color
Odor:	Characteristic, sweet, medicinal
pH:	~3.8
Boiling/condensation point:	NA
Melting/freezing point:	Not available.
Relative density:	~1.05
Vapor pressure:	Not available.
Vapor density:	Not available.
Odor threshold:	Not available.
Evaporation rate:	0.36 (Water) compared with (n-Butyl Acetate =1)
Solubility:	Soluble in the following materials: water

10. STABILITY AND REACTIVITY

10.1. Reactivity

Thermal decomposition generates: Corrosive vapors.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong reducing agents. Strong oxidizers. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Thermal decomposition generates: Corrosive vapors.

11. TOXICOLOGICAL INFORMATION

Phenol (108-95-2)

LD50 oral rat	650 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rat	660 mg/kg (Rat; Experimental value; Equivalent or similar to OECD 402)
LD50 dermal rabbit	850 - 1400 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	0.32 mg/l/4h (Rat; Literature study)
ATE US (oral)	650.000 mg/kg body weight
ATE US (dermal)	660.000 mg/kg body weight
ATE US (vapors)	0.320 mg/l/4h
ATE US (dust, mist)	0.320 mg/l/4h

Water (7732-18-5)

LD50 oral rat ≥ 90000 mg/kg
ATE US (oral) 90000.000 mg/kg body weight

Ethanol (64-17-5)
LD50 Oral rat 3450 mg/kg (mouse)
LC50 Inhalation rat 20000 ppm/10H

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/irritation: Causes serious eye damage.

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Suspected of causing genetic defects

Carcinogenicity: Not Classified

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - water : Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Phenol, 5% w/v

LC50 fish 1 80 mg/l

Phenol (108-95-2)

LC50 other aquatic organisms 1 0.04 mg/l (4 days; Rana sp.; LC50)

EC50 Daphnia 2 6.6 mg/l (EC50; 48 h; Daphnia magna; Static system)

12.2. Persistence and degradability

Phenol, 5% w/v

Persistence and degradability May cause long-term adverse effects in the environment.

Phenol (108-95-2)

Persistence and degradability Readily biodegradable in water. Photolysis in water. Readily biodegradable in the soil. Inhibits biodegradation processes in the soil. Low potential for adsorption in soil.

Biochemical oxygen demand (BOD) 1.68 g O₂/g substance

Chemical oxygen demand (COD) 2.28 g O₂/g substance

ThOD 2.38 g O₂/g substance

BOD (% of ThOD) 0.71

Water (7732-18-5)

Persistence and degradability Not established

12.3. Bioaccumulative potential

Phenol, 5% w/v

Bioaccumulative potential Not established.

Phenol (108-95-2)

Log Pow 1.47 (Experimental value; Equivalent or similar to OECD 117; 30 °C)

Bioaccumulative potential Low potential for bioaccumulation (BCF < 500).

Water (7732-18-5)

Bioaccumulative potential Not established.

12.4. Mobility in soil

Phenol (108-95-2)

Surface tension 0.0713 N/m (20 °C)

12.5. Other adverse effects

Effect on the global warming: No known effects from this product.

GWPmix comment: No known effects from this product.

Other information: Avoid release to the environment

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT: UN 1821, Phenol Solution, 6.1, II

IMDG: UN 2821 Phenol Solution, 6.1, II

IATA: UN 2821, Phenol Solution, 6.1, II

TDG: UN 2821, Phenol Solution, 6.1, II

As per, 49CFR 173.154: poisonous materials in Packing Group II, inner packaging not over 100mL (3.38 ounces) require a limited quantity label

15. REGULATORY INFORMATION

15.1. US Federal regulations

Phenol, 5% w/v

SARA Section 311/312

Hazard Classes Delayed (chronic) health hazard
Immediate (acute) health hazard

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Phenol CAS No 108-95-2 5%

Phenol (108-95-2)

RQ (Reportable quantity, section 304 of EPA's List of Lists) 1000 lb

SARA Section 311/312 Hazard Classes

Immediate (acute) health hazard

Delayed (chronic) health hazard

Fire hazard

SARA Section 313 - Emission Reporting 1 %

15.2. International regulations

CANADA

Ethanol

WHMIS Classification

Class B-2 Flammable liquid

Phenol, 5% w/v

WHMIS Classification

Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects

Class E - Corrosive Material

Phenol (108-95-2)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects

Class E - Corrosive Material

Water (7732-18-5)

WHMIS Classification Uncontrolled product according to WHMIS classification criteria

EU-Regulations

No additional information available

National regulations

Phenol (108-95-2)

Listed on the Canadian IDL (Ingredient Disclosure List)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

RTK: Phenol, CAS 108-95-2, MA, MN, NJ, PA

16. OTHER INFORMATION

National Fire Protection Association (U.S.A.)

**Notice to reader**

This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labeling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall EDM3 be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.