# Safety Data Sheet

Phenol Solution 2%

Revision Date: 1/1/2020

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** Phenol Solution 2%, 16oz
**Product code:** 400515

**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)**
**H314:** Causes severe skin burns and eye damage
**H341:** Suspected of causing genetic defects
**H373:** May cause damage to organs through prolonged or repeated exposure
**H714:** Harmful 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: 1
Reactivity Hazard: 0

**NFPA Rating**
Health hazard: 3
Flammability: 1
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 (Vacuum Distilled, 90%) | 108-95-2 | 2 (Please Note: the unit volume of phenol in this 16oz container is 9.5 mLs) |
| Water | 7732-18-5 | 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/m3 | |
| | ACGIH | TWA | 5 ppm | |
| | OSHA | PEL (TWA) | 19 mg/m3 | |
| | OSHA | PEL (TWA) | 5 ppm | |
| | IDLH | US IDLH | 250 ppm | |
| | NIOSH | REL (TWA) | 19 mg/m3 | |
| | NIOSH | REL (TWA) | 5 ppm | |
| | NIOSH | REL (ceiling) | 60 mg/m3 15 min | |
| | NIOSH | REL (ceiling) | 15.6 ppm 15 min | |

**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:** Clear

**Odor:** Characteristic, sweet, medicinal

**pH:** ~3.8

**Boiling/condensation point:** NA

**Melting/freezing point:** Not available.

**Relative density:** ~1.04

**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 |

**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**

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**

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 $O_2$/g substance
Chemical oxygen demand (COD) 2.28 g $O_2$/g substance
ThOD 2.38 g $O_2$/g substance
BOD (% of ThOD) 0.71

**Water (7732-18-5)**

Persistence and degradability Not established

### 12.3. Bioaccumulative potential Phenol

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 2821, Phenol Solution, 6.1, III

**IMDG:** UN 2821 Phenol Solution, 6.1, III

**IATA:** UN 2821, Phenol Solution, 6.1, III

**TDG:** UN 2821, Phenol Solution, 6.1, III

As per, 49CFR 173.154: poisonous materials in Packing Group III, inner packaging not over 5 liters require a limited quantity label

## 15. REGULATORY INFORMATION

### 15.1. US Federal regulations

**Phenol**

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
**Phenol**
WHMIS Classification
Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects
Class E - Corrosive Material

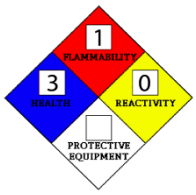
**Phenol (108-95-2)**
Listed on the Canadian DSL (Domestic Substances List)
WHMIS Classification Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects
Class E - Corrosive Material
**Water (7732-18-5)**
WHMIS Classification Uncontrolled product according to 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.