

MSDS# 45479

Section 1 - Chemical Product and Company Identification

MSDS Name: Saturated Phenol, pH 6.6/7.9  
Catalog Numbers: BP1750I-100, BP1750I-400  
Synonyms: Phenol buffer solution.  
Company Identification: Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
For information in the US, call: 201-796-7100  
Emergency Number US: 201-796-7100  
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

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Risk Phrases:

CAS#: 77-86-1  
Chemical Name: Tris (hydroxymethyl) aminomethane  
%: N/A  
EINECS#: 201-064-4  
Hazard Symbols:

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Risk Phrases: 24/25 34

CAS#: 108-95-2  
Chemical Name: Phenol  
%: 80-94  
EINECS#: 203-632-7  
Hazard Symbols: T

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Risk Phrases:

CAS#: 6381-92-6  
Chemical Name: Disodium EDTA dihydrate  
%: N/A  
EINECS#: unlisted  
Hazard Symbols:

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Text for R-phrases: see Section 16

Hazard Symbols: T



Risk Phrases: 24/25 34

Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Danger! Combustible liquid and vapor. May cause central nervous system effects. Causes severe eye and skin burns. Causes severe digestive and respiratory tract burns. Harmful if swallowed, inhaled, or absorbed through the skin. Target Organs: Kidneys, central nervous system, liver.

### Potential Health Effects

- Eye: Contact with liquid or vapor causes severe burns and possible irreversible eye damage.
- Skin: Harmful if absorbed through the skin. Causes severe skin irritation and burns.
- Ingestion: Harmful if swallowed. Symptoms may include: headache, excitement, fatigue, nausea, vomiting, stupor, and coma. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. Causes digestive tract burns with immediate pain, swelling of the throat, convulsions, and possible coma.
- Inhalation: Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. May be fatal if exposed to high concentrations. May also cause pallor, loss of appetite, nausea, vomiting, diarrhea, weakness, darkened urine, headache, sweating, convulsions, cyanosis (bluish skin due to deficient oxygenation of the blood), unconsciousness, fatigue, pulmonary edema & coma.
- Chronic: Chronic inhalation may cause effects similar to those of acute inhalation. Chronic ingestion may cause effects similar to those of acute ingestion. May cause liver and kidney damage. Repeated skin contact may cause dermatitis with dark pigmentation of the skin.

### Section 4 - First Aid Measures

- Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed.
- Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a manner which limits further exposure. SPEEDY ACTION IS CRITICAL!
- Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
- Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician:

### Section 5 - Fire Fighting Measures

- General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Combustible liquid and vapor.
- Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition Temperature: Not available.

Flash Point: 79.4 deg C ( 174.92 deg F)

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 4; flammability: 2; instability: 0;

### Section 6 - Accidental Release Measures

- General Information: Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Provide ventilation. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces.

### Section 7 - Handling and Storage

Wash thoroughly after handling. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Empty

Handling: containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not ingest or inhale. Wash clothing before reuse. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat and flame. Keep away from sources of ignition. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Tris (hydroxymethyl) aminomethane	none listed	none listed	none listed
Phenol	5 ppm; Skin - potential significant contribution to overall exposure by the cutaneous route	5 ppm TWA; 19 mg/m3 TWA 250 ppm IDLH	5 ppm TWA; 19 mg/m3 TWA
Disodium EDTA dihydrate	none listed	none listed	none listed

OSHA Vacated PELs: Tris (hydroxymethyl) aminomethane: None listed Phenol: 5 ppm TWA; 19 mg/m3 TWA Disodium EDTA dihydrate: None listed

#### Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

#### Exposure Limits

#### Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a

Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: Not available

Odor: none reported

pH: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: Not available

Decomposition Temperature: Not available

Solubility in water: Not available

Specific Gravity/Density:

Molecular Formula:

Molecular Weight: 0

### Section 10 - Stability and Reactivity

Chemical Stability:	Stable.
Conditions to Avoid:	Incompatible materials, ignition sources, excess heat.
Incompatibilities with Other Materials	Acids (mineral, non-oxidizing, e.g. hydrochloric acid, hydrofluoric acid, muriatic acid, phosphoric acid), acids (mineral, oxidizing, e.g. chromic acid, hypochlorous acid, nitric acid, sulfuric acid), azo, diazo, and hydrazines (e.g. dimethyl hydrazine, hydrazine, methyl hydrazine), isocyanates (e.g. methyl isocyanate), metals (alkali and alkaline, e.g. cesium, potassium, sodium), nitrides (e.g. potassium nitride, sodium nitride), peroxides and hydroperoxides (organic, e.g. acetyl peroxide, benzoyl peroxide, butyl peroxide, methyl ethyl ketone peroxide), epoxides (e.g. butyl glycidyl ether), explosives (e.g. ammonium nitrate, hydrazoic acid, sodium azide), polymerizable compounds (e.g. butadiene, methyl acrylate, styrene, vinyl chloride), oxidizing agents (strong, e.g. bromine, hydrogen peroxide, nitrogen dioxide, potassium nitrate), reducing agents (strong, e.g. aluminum carbide, chlorosilane, hydrogen phosphide, lithium hydride), water reactive substances (e.g. acetic anhydride, alkyl aluminum chloride, calcium carbide, ethyl dichlorosilane).
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide.
Hazardous Polymerization	Has not been reported.

#### Section 11 - Toxicological Information

RTECS#:	CAS# 77-86-1: TY2900000 CAS# 108-95-2: SJ3325000 CAS# 6381-92-6: AH4410000
LD50/LC50:	RTECS: <b>CAS# 77-86-1:</b> Oral, rat: LD50 = 5900 mg/kg; . RTECS: <b>CAS# 108-95-2:</b> Draize test, rabbit, eye: 5 mg Severe; Draize test, rabbit, skin: 500 mg/24H Severe; Draize test, rabbit, skin: 100 mg Mild; Inhalation, mouse: LC50 = 177 mg/m <sup>3</sup> ; Inhalation, mouse: LC50 = 177 mg/m <sup>3</sup> /4H; Inhalation, rat: LC50 = 316 mg/m <sup>3</sup> ; Inhalation, rat: LC50 = 316 mg/m <sup>3</sup> /4H; Oral, mouse: LD50 = 270 mg/kg; Oral, rat: LD50 = 317 mg/kg; Oral, rat: LD50 = 512 mg/kg; Skin, rabbit: LD50 = 630 mg/kg; Skin, rat: LD50 = 669 mg/kg; Skin, rat: LD50 = 1500 mg/kg; . RTECS: <b>CAS# 6381-92-6:</b> Tris (hydroxymethyl) aminomethane - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. Phenol - IARC: Group 3 (not classifiable) Disodium EDTA dihydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Carcinogenicity:	
Epidemiology:	No information found
Teratogenicity:	No information found
Reproductive:	No information found
Neurotoxicity:	No information found
Mutagenicity:	No information found
Other:	Not available

#### Section 12 - Ecological Information

Ecotoxicity:	Daphnia: Fathead Minnow: EC50=4.0 mg/l; 96-hour; cas#108-95-2 Daphnia: Fathead Minnow: EC50=12.0 mg/l; 48-hour; cas#108-95-2
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### Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: CAS# 108-95-2: waste number U188.

### Section 14 - Transport Information

US DOT

Shipping Name: PHENOL SOLUTIONS

Hazard Class: 6.1

UN Number: UN2821

Packing Group: II

Canada TDG

Shipping Name: PHENOL SOLUTION

Hazard Class: 6.1

UN Number: UN2821

Packing Group: II

USA RQ: CAS# 108-95-2: 1000 lb final RQ; 454 kg final RQ

### Section 15 - Regulatory Information

US Federal

TSCA

CAS# 77-86-1 is listed on the TSCA Inventory.

CAS# 108-95-2 is listed on the TSCA Inventory.

CAS# 6381-92-6 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the Inventory (40CFR720.3(u)(2)).

Health & Safety  
Reporting List

CAS# 108-95-2: Effective 6/1/87, Sunset 6/1/97

Chemical Test Rules  
Section 12b

None of the chemicals in this product are under a Chemical Test Rule.  
None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New  
Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous  
Substances and  
corresponding RQs

CAS# 108-95-2: 1000 lb final RQ; 454 kg final RQ

SARA Section 302  
Extremely Hazardous  
Substances

CAS# 108-95-2: 500 lb lower threshold TPQ; 10000 lb upper threshold TPQ

SARA Codes

CAS # 77-86-1: acute. CAS # 108-95-2: acute, chronic, flammable. CAS # 6381-92-6: acute.

Section 313

This material contains Phenol (CAS# 108-95-2, 80-94%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

Clean Air Act:

CAS# 108-95-2 is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

CAS# 108-95-2 is listed as a Hazardous Substance under the CWA. CAS# 108-95-2 is listed as a Priority Pollutant under the Clean Water Act. CAS# 108-95-2 is listed as a Toxic Pollutant under the Clean Water Act.

OSHA:

Tris (hydroxymethyl) aminomethane is not present on state lists from CA, PA, MN, MA, FL, or NJ. Phenol can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts. Disodium EDTA dihydrate is not present on state lists from CA, PA, MN, MA, FL, or NJ.

STATE

California Prop 65

California No Significant  
Risk Level:

None of the chemicals in this product are listed.

## European/International Regulations

### European Labeling in Accordance with EC Directives

Hazard Symbols: T

Risk Phrases:

R 24/25 Toxic in contact with skin and if swallowed.

R 34 Causes burns.

Safety Phrases:

S 28 After contact with skin, wash immediately with...

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### WGK (Water Danger/Protection)

CAS# 77-86-1: 1

CAS# 108-95-2: 2

CAS# 6381-92-6: 2

### Canada

CAS# 77-86-1 is listed on Canada's DSL List

CAS# 108-95-2 is listed on Canada's DSL List

CAS# 6381-92-6 is listed on Canada's DSL List

Canadian WHMIS Classifications: B3, D1A, E

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 77-86-1 is not listed on Canada's Ingredient Disclosure List.

CAS# 108-95-2 is listed on Canada's Ingredient Disclosure List

CAS# 6381-92-6 is not listed on Canada's Ingredient Disclosure List.

### Section 16 - Other Information

MSDS Creation Date: 7/16/1999

Revision #7 Date 10/30/2007

Revisions were made in Sections: 5

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company 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 howsoever arising, even if the company has been advised of the possibility of such damages.

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