

Creation date: 11-27-17

Revision date: 12-22-20

Revision number: 1.1

## Section I - Product Identification

**Product:** This product is a carbol fuchsin stain consisting of basic fuchsin, DMSO, phenol and reagent alcohol in an aqueous solution.

**Intended Uses:** Carbol fuchsin is a stain used for demonstrating acid fastness in acid fast bacteria.

**Uses advised against:** This should only be used by trained laboratory professionals. Reagent alcohol is toxic and can not be made non-toxic.

### Manufacturer Identification

Medical Chemical Corp.  
19430 Van Ness Ave.  
Torrance, CA 90501

Customer Service: Phone (310)787-6800  
Email: Christinaavena@med-chem.com  
FAX (310)787-4464

### Emergency Telephone Number

CHEMTREC Emergency Response Telephone Number: (800)424-9300. Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.



## Section II - Hazard Identification

This item is considered hazardous by 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

**Flammable liquid:** Category 2 (H225)

**Eye damage/eye irritation:** Category 2A (H319). Causes serious eye irritation.

**Acute toxicity (Oral):** Category 4 (H302). Harmful if swallowed.

**Acute toxicity (Inhalation):** Category 4 (H332). Harmful if inhaled.

**Acute toxicity (Dermal):** Category 4 (H312). Harmful in contact with skin.

**Skin Corrosion:** Category 2 (H315). Causes skin irritation

**Mutagen:** Category 2 (H341). Suspected of causing genetic defects.

**Carcinogenicity:** Category 2 (H350). Suspected of causing cancer.

**Signal word:** Danger

**Hazard statements:** Highly flammable liquid and vapor. Keep away from heat, sparks, open flames and hot surfaces. No smoking. Keep container tightly closed. Use only non-sparking tools. Take precautions against static discharge. Wear protective clothes and eye protection. In case of skin contact immediately remove all contaminated clothing. Rinse with water or shower. In case of fire, use fire extinguishers approved for alcohol fires. Phenol and methanol are toxic by inhalation, absorption or ingestion. Suspected of causing genetic defects.

### Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P242 Use only non-sparking tools.

P243 Take precautions against static discharge.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P270 Do not eat, drink or smoke when using this product.

P271 Use only in a well-ventilated area.

P280 Wear protective clothes and eye protection.

P281 Use personal protective equipment as required.

### Safety Ratings

**Health:** Hazardous **Flammability:** Highly Flammable **Reactivity:** None **Contact:** Slight  
Recommended safety equipment: safety goggles, lab coat and proper gloves

### NFPA Ratings

Health = 2 Flammability = 3 Reactivity = 0

## Potential Health Effects

The toxicology of this compound has not been completely examined. It is presumed that the toxicity of this item is similar to other aliphatic alcohols. Inhalation or contact with ethanol may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Exposure to methanol vapor causes eye irritation, headache, fatigue and drowsiness. High concentrations can produce central nervous system depression and optic nerve damage. Can be absorbed through skin. Swallowing methanol may cause death or eye damage.

*Inhalation:* Alcohols are absorbed through the mucous membranes and will produce irritation as well as the same effects as ingestion. Phenol is toxic by inhalation.

*Ingestion:* Ingestion will produce CNS disturbance, dizziness, photophobia, headache, stupor, coma and death. Phenol is toxic by ingestion.

*Skin contact:* Alcohols are absorbed through the skin. Repeated contact causes defatting of the skin with resultant irritation and flaking. Phenol is corrosive to skin.

*Eye contact:* May be irritating. Phenol can cause eye damage

*Chronic Exposure:* Unknown.

*Aggravation of preexisting conditions:* Impaired kidney and liver function may be aggravated by exposure to alcohols. Preexisting eye, skin, and respiratory conditions may also be aggravated. Methanol has shown genetic toxicity in some animals.

---

## Section III - Composition/Information on Components

| Ingredients        | CAS#       | EC List Number | % w/w          |
|--------------------|------------|----------------|----------------|
| Ethanol            | 64-17-5    | 200-578-6      | 15 - 20% w/w   |
| Isopropanol        | 67-63-0    | 200-661-7      | 0.8 - 1% w/w   |
| Methyl alcohol     | 67-56-1    | 200-659-6      | 0.8 - 1% w/w   |
| Phenol             | 108-95-2   | 203-632-7      | 4 - 5% w/w     |
| Dimethyl sulfoxide | 67-68-5    | 200-664-3      | 7 - 9% w/w     |
| Basic Fuchsin      | 58969-01-0 | 684-520-9      | 1.5 - 2.5% w/w |

---

## Section IV - First Aid Measures

*General Advice:* Contact a doctor if symptoms persist

*Inhalation:* Remove from source of exposure and get medical attention for any breathing difficulty.

*Ingestion:* Do not induce vomiting. Aspiration of alcohol into the lungs may produce death. Get immediate medical attention even if symptoms improve.

*Skin Contact:* In case of skin contact, remove contaminated clothing and flush with water. Wash affected area with soap and water. DMSO will enhance the absorption through the skin of the other ingredients. Get medical advice if irritation develops. Phenol causes skin lesions that are slow to heal.

*Eye Contact:* In case of eye contact, flush with water for at least 15 minutes and get medical attention.

---

## Section V - Fire Fighting Measures

*Fire Extinguishing Media:* Alcohol foam, carbon dioxide or dry chemical. Water is ineffective against alcohol fires but may be used to cool adjacent containers.

*Flash point:* 33 °C (91 °F) TCC

*Flammable Limits (for ethanol):* LEL 3% UEL 19%

*Flammable Limits (for methanol):* LEL 6% UEL 36.5%

*Flammable Limits (for isopropanol):* LEL 2% UEL 12%

*Specific Hazards:* Risk of vapor traveling to source of ignition and flashing back. Risk of exploding containers when heated. Vapor in air may form explosion risk.

*Special information:* Pyrolysis will release toxic carbon monoxide, formaldehyde, phenol and methanol.

*Special protective gear and precautions:* Self contained breathing apparatus and protective gear recommended.

---

## Section VI - Accidental Release Measures

Use personal protective gear, remove all sources of ignition, absorb with a suitable absorbent and dispose. Take precautions against static ignition. Should not be released into the environment.

---

## Section VII - Handling and Storage

P403+P233+P102; Store in a well-ventilated place. Keep container tightly closed. Store away from open flames or other sources of ignition. Keep out of reach of children.

---

## Section VIII - Exposure Control/Personal Protection

| Component          | ACGIH TLV      | OSHA PEL                   | NIOSH IDLH |
|--------------------|----------------|----------------------------|------------|
| Ethanol            | 1000 ppm       | 1000 ppm                   | 3300 ppm   |
| Isopropanol        | 400 ppm        | 400 ppm                    | 2000 ppm   |
| Methyl alcohol     | 200 ppm (skin) | 200 ppm (skin)             | 6000 ppm   |
| Phenol             | 5 ppm (TWA)    | 19 mg/m <sup>3</sup> (TWA) | 250 ppm    |
| Dimethyl sulfoxide | Not listed     | Not listed                 | Not listed |
| Basic fuchsin      | Not listed     | Not listed                 | Not listed |

### Legend

**ACGIH:** American Conference of Governmental Industrial Hygienists.

**OSHA:** Occupational Safety and Health Administration.

**NIOSH:** National Institute for Occupational Safety and Health.

**IDLH:** Immediately dangerous to life or health.

*Ventilation System:* Local exhaust such as explosion proof chemical fume hoods are recommended. When required, Refer to the ACGIH document, "Industrial Ventilation, a Manual of Recommended Practices" for details about ventilation.

*Personal Respirator:* Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.

*Skin protection:* Protective gloves are recommended as part of good laboratory practice.

*Eye Protection:* Laboratory safety goggles or similar products are not required but recommended as part of good laboratory practice.

---

## Section IX - Physical and Chemical Properties

*Boiling Point:* 187 °F (86 °C)

*Density:* 0.987 g/ml @ 22.5 °C

*Vapor pressure (mm Hg):* 40 @ 20 °C

*Evaporation Rate (Water = 1):* 1

*Vapor Density (air = 1):* 3.2

*Solubility:* Miscible with water

*Appearance and Odor:* A purple liquid with a sickening sweet smell.

---

## Section X - Stability and Reactivity

*Stability:* Stable under normal conditions.

*Hazardous Decomposition Products:* Nothing unusual.

*Hazardous polymerization:* Will not occur.

*Incompatibilities:* Oxidizers.

*Conditions to avoid:* heat, flame and sources of ignition.

---

## Section XI - Toxicological Information

| Component          | LD50 Oral         | LD50 Dermal           | LC50 Inhalation     |
|--------------------|-------------------|-----------------------|---------------------|
| Ethanol            | 1047 mg/kg (Rat)  | 20 ml/kg (Rat)        | 125 mg/l/4h (Rat)   |
| Isopropanol        | >4700 mg/kg (Rat) | 13,000 mg/kg (Rabbit) | 19,000 ppm/8h (Rat) |
| Methyl alcohol     | 5628 mg/kg (Rat)  | 15,800 mg/kg (Rabbit) | 64,000 ppm/4h (Rat) |
| Dimethyl sulfoxide | 14500 mg/kg (Rat) | 40 g/kg (Rat)         | 5.33 mg/l (Rat) 4 h |

|               |                 |                    |                                 |
|---------------|-----------------|--------------------|---------------------------------|
| Phenol        | 317 mg/kg (Rat) | 630 mg/kg (Rabbit) | 900 mg/m <sup>3</sup> /8h (Rat) |
| Basic fuchsin | No data         | No data            | No data                         |

***Ingredient Known Carcinogenicity? NTP? Anticipated? IARC Category***

|               |    |     |     |      |
|---------------|----|-----|-----|------|
| Ethanol       | No | No  | No  | None |
| Methanol      | No | No  | No  | None |
| Isopropanol   | No | No  | No  | 3    |
| Phenol        | No | No  | No  | 3    |
| DMSO          | No | No  | No  | None |
| Basic fuchsin | No | Yes | Yes | 2B   |

**Section XII - Ecological Information**

Aliphatic alcohols evaporate quickly and are not expected to bioaccumulate. The half-life for ethanol in the atmosphere is one to ten days.

**Environmental Fate:** Biodegradable

**Soil Mobility:** Unknown

**Environmental Toxicity:** Low.

| Component          | Freshwater Fish     | Water Flea          | Freshwater algae    |
|--------------------|---------------------|---------------------|---------------------|
| Ethanol            | LC50 100 mg/l 96 h  | EC50 100 mg/L 48 h  | EC50 100 mg/l 72 h  |
| Methanol           | LC50 100 mg/l 96 h  | EC50 1000 mg/l 48 h | EC50 22 g/l 96 h    |
| Isopropanol        | LC50 9640 mg/l 96 h | EC50 7550 mg/l 48 h | EC50 1000 mg/l 72 h |
| Dimethyl sulfoxide | LC50 40 g/l 96 h    | EC50 7 g/l 24 h     | EC50 12.4 g/l 96 h  |
| Phenol             | LC50 25 mg/l 48 h   | EC50 12 mg/l 24 h   | EC50 370 mg/l 96 h  |
| Basic fuchsin      | No data             | No data             | No data             |

**Section XIII - Disposal Considerations**

Incineration at a licensed chemical disposal facility is the preferred disposal method. Local governments often restrict the amounts of alcohol and other flammable liquids that may be flushed down the drain. The usual rule is that the effluent exiting the building can't be flammable. They also restrict the amount of phenol that may be introduced into the environment. Dispose of contents and container in accord with all applicable regulations.

**Section XIV - Transportation Information**

DOT Shipping name: Ethyl alcohol solution *Hazard Class: 3 Packaging Group: III*  
 DOT Hazard Label: Flammable liquid *DOT Identification Number: UN1170*

Bottles smaller than 32 Fl. Oz. are eligible to be shipped under limited quantity exemptions [49 CFR section 173.150(b)(2), 173.150(C) and IATA Y341].

**Section XV - Regulatory Information**

**Chemical Inventory Status**


| Ingredient    | TSCA | EC  |
|---------------|------|-----|
| Ethanol       | Yes  | Yes |
| Methanol      | Yes  | Yes |
| Isopropanol   | Yes  | Yes |
| Phenol        | Yes  | Yes |
| DMSO          | Yes  | Yes |
| Basic fuchsin | Yes  | Yes |

**Federal and State Regulations**

| Ingredient    | SARA 302 |     | SARA 313 |          | RCRA 261.33 | TSCA 8(D) | Ca. Prop 65 |
|---------------|----------|-----|----------|----------|-------------|-----------|-------------|
|               | RQ       | TPQ | List     | Category |             |           |             |
| Ethanol       | No       | No  | No       | No       | No          | No        | No          |
| Isopropanol   | No       | No  | Yes      | No       | No          | No        | No          |
| Methanol      | No       | No  | Yes      | No       | U154        | No        | Yes         |
| Phenol        | Yes      | Yes | Yes      | Yes      | No          | No        | No          |
| DMSO          | No       | No  | No       | No       | No          | No        | No          |
| Basic fuchsin | No       | No  | No       | No       | No          | No        | No          |

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: Yes

SARA 311/312: Acute: Yes Chronic: Yes Fire: Yes Pressure: No Reactivity: No

 This product contains methanol which is known to the state of California to cause birth defects or other reproductive harm. For more information go to [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).

---

### **Section XVI - Other Information**

This information is believed to be correct at the time of publication but is not guaranteed as such, nor does it purport to be all inclusive. Medical Chemical Corp. assumes no liability for the accuracy or completeness of the information. The user assumes all responsibility for compliance with federal, state and local laws.

Document Number: S034

Revision number: 1.1

Revision Date: Dec. 22, 2020