MEDICAL CHEMICAL CORPORATION
SINCE 1954

# SDS for Lactophenol Cotton Blue
# Catalog # 638A

**Creation date: 05-08-2015** **Revision date: 12-11-2024** **Revision number: 1.08**

## Section I - Product Identification

*Product*: An aqueous solution of glycerin, phenol, lactic acid and aniline blue. Aniline blue WS is a mixture of dyes and is predominately methyl blue (CI #42780) but also contains cotton blue and water blue.

*Intended Uses*: Normally used as an in-vitro fungal stain.

*Uses advised against:* For laboratory use only.

*Country of origin:* United States.

### Manufacturer Identification

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

Customer Service: Phone (310)787-6800
Email. Customerservice@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) and CLP Regulation ((EC) No 1272/2008).

**Eye damage/eye Irritation**: Category 1 (H318). Causes serious eye damage.
**Acute toxicity (Oral)**: Category 4 (H302). Harmful if swallowed.
**Acute toxicity (inhalation)**: Category 4 (H332). Harmful if inhaled.
**Skin corrosion/Irritation:** Category 1B (H314). Causes severe skin burns and eye damage.
**Germ cell mutagenicity:** Category 2 (H341). Suspected of causing genetic defects.
**Specific target organ toxicity:** Category 2 (H373). Causes damage to organs through prolonged or repeated exposure.
**Long-term (chronic) aquatic hazard:** Category 3 ( H412). Harmful to aquatic life with long lasting effects

**Signal word**: Danger

### Hazard statements

The toxicology of this compound have not been completely examined. Lactic acid and phenol are corrosive to the eye and skin. Phenol is toxic by ingestion or absorption

P102 Keep out of reach of children.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

### Safety Ratings

*Health:* Hazardous *Flammability:* None *Reactivity*: None *Contact:* Hazardous

*Recommended safety equipment:* Use eye protection, proper clothing and chemical resistant gloves.

### NFPA Ratings

Health = 3. Can cause serious or permanent injury.
Flammability = 0. Will not burn
Reactivity = 0. Stable.

### Potential Health Effects

Inhalation, ingestion or skin contact with material may cause severe injury or death. Phenol is absorbed through intact skin and is highly toxic by ingestion, inhalation or contact. Gastrointestinal effects include: nausea, pain, bloody vomitus and diarrhea. Corrosive to skin and mucous membranes.

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

*Skin contact:* Contact with the skin will cause chemical burns.

*Eye contact:* Causes serious eye damage.

*Chronic Exposure*: Repeated or prolonged contact with skin may cause dermatitis.

*Aggravation of preexisting conditions:* Unknown.

## Section III - Composition/Information on Components

| Ingredient | CAS# | EC-No. | % w/w |
|---|---|---|---|
| Glycerine | 56-81-5 | 200-289-5 | 40 - 50% |
| Phenol | 108-95-2 | 203-632-7 | 15 - 25%% |
| Lactic acid | 50-21-5 | 200-018-0 | 15 - 25%% |
| Aniline blue | 28631-66-5 | 249-113-9 | 0.02 - .06% |

## Section IV - First Aid Measures

Inhalation: Remove from source of exposure and get immediate medical attention.

*Ingestion:* Rinse mouth with water but do not induce vomiting. Get immediate medical attention. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

*Skin Contact:* Remove contaminated clothing and launder before reuse. Wash affected area with soap and water. Get medical advice if irritation develops.

*Eye Contact:* Remove contact lenses if possible and rinse well with water. Get immediate medical advice.

## Section V - Fire Fighting Measures

*Fire:* Not normally a fire hazard.

*Explosion:* Not normally an explosion hazard.

*Fire Extinguishing Media*: Any means suitable for surrounding fire.

*Special information*:

## Section VI - Accidental Release Measures

Absorb with a suitable absorbent and store in a suitable container for disposal.

## Section VII - Handling and Storage

P405+P403+P233+P102; Store in a well-ventilated place. Keep container tightly closed. Keep out of reach of children. Store away from foodstuffs. Store locked up or with access restricted to qualified individuals..

## Section VIII - Exposure Control/Personal Protection

| Component | ACGIH TLV | OSHA PEL | NIOSH | NIOSH IDLH |
|---|---|---|---|---|
| Glycerine | 15 mg/m$^3$ TWA (mist) | 15 mg/m$^3$ TWA (mist) | 15 mg/m$^3$ TWA (mist) | Not applicable |
| Phenol | 5 ppm (TWA) | 19 mg/m$^3$ (TWA) | 5 ppm (TWA) | 250 ppm |
| Lactic acid | Not regulated | Not regulated | Not regulated | Not regulated |
| Aniline blue | Not regulated | Not regulated | Not regulated | Not regulated |

### 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:* Usually not required. 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 required as part of good laboratory practice.

*Eye Protection:* Laboratory safety goggles or similar products are required.

## Section IX - Physical and Chemical Properties

*Appearance and Odor:* A clear, purple solution with the characteristic odor of phenol.

Flash point: Not applicable.
Auto ignition temperature: Not applicable
*Boiling point range*: No data
Decomposition temperature: No data
Melting point: No data
pH: about 1
*Vapor pressure* (mm Hg): No data
*Viscosity:* No data

Flammable Limits: Not applicable.
Boiling Point: 112 °C
*Density*: 1.15 g/ml @ 22.5 °C
*Evaporation Rate (Water = 1)*: No data
Partition coefficient (*n*-Octanol/Water): No data
Solubility: Infinitely miscible with water
Vapor density (air = 1): 0.6
Volatile organic carbon (VOC): No data

## Section X - Stability and Reactivity

*Stability:* Stable under normal conditions.

*Hazardous Decomposition Products*: .

*Hazardous polymerization*: Will not occur.

*Incompatibilities*: Reacts with organic material.

*Conditions to avoid:* Excessive cold and heat

## Section XI - Toxicological Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Glycerine | 12,600 g/kg (Rat) | Not applicable | 570mg/$m^3$/h |
| Phenol | 317 mg/kg (Rat) | 630 mg/kg (Rabbit) | 900 mg/$m^3$/8h (Rat) |
| Lactic acid | 3543 mg/kg (Rat) | 200 mg/kg (Rabbit) | 7.94 mg/l, 4 h |
| Aniline blue | No data | No data | No data |

**Cancer lists**

| *Ingredient* | *Known Carcinogenicity?* | *NTP?* | *Anticipated?* | *IARC Category* |
|---|---|---|---|---|
| Glycerine | No | No | No | None |
| Phenol | No | No | No | 3 |
| Lactic acid | No | No | No | None |
| Aniline blue | No | No | No | None |

## Section XII - Ecological Information

This product is expected to bioaccumulate. The product does not contain endocrine disrupters, persistent organic pollutants or ozone depleters.

**Soil Mobility**: Unknown
**Environmental Fate**: Biodegradable
**Long-term (chronic) aquatic hazard:** Category 3 ( H412). Harmful to aquatic life with long lasting effects

For aniline blue
Toxicity to freshwater fish: No data
Toxicity to invertebrates: No data
Toxicity to freshwater algae: No data

For glycerine
Toxicity to freshwater fish (rainbow trout):LC50 = 54,000 mg/l, 96 h
Toxicity to invertebrates: No data
Toxicity to freshwater algae: No data

For lactic acid
Toxicity to freshwater fish:LC50 = No data
Toxicity to invertebrates (water flea): LC50 = 130 mg/l 48 h
Toxicity to freshwater algae (green algae): LC60 = 3500 mg/l 72 h

For phenol
Toxicity to invertebrates (water flea): EC50 = 3.1 mg/l, 48 h
Toxicity to freshwater fish (cutthroat trout):LC50 = 8.9 mg/l, 96 h
T0xicity to freshwater algae (pseudokirchneriella subcapitata): EC50 = 61 mg/l, 96 h

## Section XIII - Disposal Considerations

Most local authorities will restrict the drain disposal of strong acids. A common restriction is that the pH of the effluent exiting the building can't be below 4. Insure compliance with all government regulations

## Section XIV - Transportation Information

***DOT***

Proper shipping name: Phenol solution Hazard class: 6.1 Packing group: III
Dot identification number: UN1090

***IATA***

Proper shipping name: Phenol solution Hazard class: 6.1 Packing group: III
Dot identification number: UN1090

***IMDG***

Proper shipping name: Phenol solution Hazard class: 6.1 Packing group: III
EMS-No: F-A, S-A Marine pollutant : yes

## Section XV - Regulatory Information

**Chemical Inventory Status**

| Ingredient | TSCA | EC |
|---|---|---|
| Glycerine | Yes | Yes |
| Phenol | Yes | Yes |
| Lactic acid | Yes | Yes |
| Aniline blue | Yes | Yes |

**Federal, State and International Regulations**

| | SARA 302 | | SARA 313 | | RCRA | TSCA | |
|---|---|---|---|---|---|---|---|
| Ingredient | RQ | TPQ | List | Category | 261.33 | 8(D) | Ca. Prop 65 |
| Glycerine | No | No | No | No | No | No | No |
| Phenol | Yes | Yes | Yes | Yes | No | No | No |
| Lactic acid | No | No | No | No | No | No | No |
| Aniline blue | No | No | No | No | No | No | No |

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

SARA 311/312

| | |
|---|---|
| *Acute:* | Yes |
| *Chronic*: | Yes |
| *Fire*: | No |
| *Pressure*: | No |

## 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.

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