

Creation date: 05-04-2015

Revision date: 03-18-2024

Revision number: 1.06

Section I - Product Identification

Product: An aqueous solution of ethylene glycol, aluminum sulfate hydrate, hematoxylin and citric acid.

Intended Uses: An in-vitro diagnostic reagent intended to be used as a stain in histology.

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 not considered hazardous by 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). May be harmful if swallowed. May cause skin irritation.

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

Acute toxicity (Oral): Category 4 (H302). May be harmful if swallowed.

Acute toxicity (Dermal): Category 5 (H313). May be harmful in contact with skin.

Sensitization (Skin): Category 1 (H317). May cause an allergic skin reaction.

Signal word: Warning

Hazard statements

The toxicology of this compound have not been completely examined. It is Irritating to the eye, skin and respiratory system.

Precautionary statements

- 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.
- P273 Avoid release to the environment.
- P281 Use personal protective equipment as required.

Safety Ratings

Health: Slightly hazardous *Flammability:* None *Reactivity:* Stable *Contact:* Slight

Recommended safety equipment: Not normally required.

NFPA Ratings

Health = 1. Can cause significant irritation.

Flammability = 0. Will not burn.

Reactivity = 0. Normally stable, even under fire conditions..

Potential Health Effects

Inhalation: May be Irritating to respiratory tract.

Ingestion: While the toxicity of this compound is low, large doses may cause nausea, vomiting, diarrhea, etc

Skin contact: Causes skin irritation or aggravation of existing dermatitis.

Eye contact: Causes serious eye irritation.

Chronic Exposure: Unknown.

Aggravation of preexisting conditions: Unknown.

Section III - Composition/Information on Components

Ingredient	CAS#	EC/list No.	% w/w
Ethylene glycol	107-21-1	203-473-3	26.1%
Aluminum sulfate hydrate	17927-65-0	605-852-2	5%
Hematoxylin	517-28-2	208-237-3	0.6%
Citric acid monohydrate	5949-29-1	611-842-9	0.1%

Section IV - First Aid Measures

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

Ingestion: Rinse mouth with water but do not induce vomiting. Get medical advise.

Skin Contact: Wash affected area with soap and water. Get medical advice if irritation develops.

Eye Contact: Rinse thoroughly with running water. Get medical advice if irritation develops.

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: No data available.

Section VI - Accidental Release Measures

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

Section VII - Handling and Storage

P403+P233+P102; Store in a well-ventilated place. Keep container tightly closed. Keep out of reach of children.

Section VIII - Exposure Control/Personal Protection

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene glycol	25 ppm	50 ppm	Not regulated
Aluminum sulfate hydrate	2 mg/m ³ TWA as Al	2 mg/m ³ TWA as Al	Not regulated
Hematoxylin	Not regulated	Not regulated	Not regulated
Citric acid monohydrate	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 purple solution.

Flash point: Not applicable
Auto ignition temperature: Not applicable
Boiling point range: No data
Decomposition temperature: No data
Melting point: ~0 °C
pH: No data
Vapor pressure (mm Hg): 18 @ 20 °C
Viscosity: No data

Flammable Limits: Not applicable.
Boiling Point: ~106 °C
Density: 1.06 g/ml @ 22.5 °C
Evaporation Rate (Water = 1): 1
Partition coefficient (n-Octanol/Water): No data
Solubility: Miscible with water
Vapor density (air = 1): 0.6
Volatile organic carbon (VOC): Not applicable

Section X - Stability and Reactivity

Stability: Stable under normal conditions.

Hazardous Decomposition Products: The manufacturer is unaware of any.

Hazardous polymerization: Will not occur.

Incompatibilities: Nothing unusual.

Conditions to avoid: Excessive cold and heat.

Section XI - Toxicological Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethylene glycol	7,712 mg/kg (Rat)	10,600 mg/kg (Rat)	No data
Aluminum sulfate hydrate	> 5 g/kg (Rat)	No data	No data
Hematoxylin	400 mg/kg (Rat)	No data	No data
Citric acid monohydrate	5,800 mg/kg (Mouse)	> 2 g/kg (Rat)	No data

Cancer lists

<u>Ingredient</u>	<u>Known Carcinogenicity?</u>	<u>NTP?</u>	<u>Anticipated?</u>	<u>IARC Category</u>
Ethylene glycol	No	No	No	No
Aluminum sulfate hydrate	No	No	No	No
Hematoxylin	No	No	No	No
Citric acid	No	No	No	No

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

Hazardous to the aquatic environment, long-term hazard: Category 3 (H412). Harmful to aquatic life with long lasting effects.

For aluminum sulfate

Toxicity to fish (rainbow trout): 0.09 mg/l, 144 h
Toxicity to Crustacea (zebra mussel): 76 mg/l, 3 h
Toxicity to freshwater algae: No data

For citric acid

Toxicity to freshwater fish (carp):LC50 = 500 mg/l, 96 h
Toxicity to invertebrates (water flea): EC50 = 120 mg/l, 72 h
Toxicity to freshwater algae: No data

For ethylene glycol

Toxicity to freshwater fish (rainbow trout):LC50 = 41,000 mg/l, 96 h
Toxicity to invertebrates (water flea): EC50 = 46,000 mg/l, 72 h
Toxicity to freshwater algae: 6500 mg/l

For hematoxylin

Toxicity to freshwater fish (rainbow trout):LC50 > 35 mg/l, 96 h
Toxicity to invertebrates (water flea): EC50 = 30 mg/l, 48 h
Toxicity to freshwater algae (Chlorella vulgaris): No data

Section XIII - Disposal Considerations

Usually not restricted but local ordinances vary. Insure compliance with all federal, state and local government regulations

Section XIV - Transportation Information

Not regulated by DOT or IATA.

Section XV - Regulatory Information**Chemical Inventory Status**

<u>Ingredient</u>	<u>TSCA</u>	<u>EC</u>
Ethylene glycol	Yes	Yes
Aluminum sulfate hydrate	Yes	Yes
Hematoxylin	Yes	Yes
Citric acid	Yes	Yes

Federal and State Regulations

<u>Ingredient</u>	<u>SARA 302</u>		<u>SARA 313</u>		<u>RCRA</u>	<u>TSCA</u>	<u>Ca. Prop 65</u>
	<u>RQ</u>	<u>TPQ</u>	<u>List</u>	<u>Category</u>	<u>261.33</u>	<u>8(D)</u>	
Ethylene glycol	No	No	No	No	No	No	No
Aluminum sulfate hydrate	No	No	No	No	No	No	No
Hematoxylin	No	No	Yes	No	No	No	No
Citric acid	No	No	No	No	No	No	No

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

SARA 311/312

<i>Acute:</i>	No
<i>Chronic:</i>	No
<i>Fire:</i>	No
<i>Pressure:</i>	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.

Document Number: S088

Revision number: 1.06

Revision Date: Jan. 29, 2024