

Creation date: 05-04-2015

Revision date: 01-05-2024

Revision number: 1.05

Section I - Product Identification

Product: A solution of ammonium alum, reagent alcohol and hematoxylin in water.

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
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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.
- P220 Keep away from clothing and other combustible materials.
- 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:* Slight *Reactivity:* None *Contact:* Slight
Recommended safety equipment: Not normally required.

NFPA Ratings

Health = 1 Flammability = 2 Reactivity = None

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. Causes skin to turn brown.

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
Ammonium alum	7784-26-1	616-522-2	6.6% w/w
Ethanol	64-17-5	200-662-2	3.5% w/w
Isopropanol	67-63-0	200-661-7	0.2% w/w
Methanol	67-56-1	200-659-6	0.2% w/w
Hematoxylin	517-28-2	208-237-3	0.35% w/w

The solution also contains small amounts of sodium iodate as an oxidizer.

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

Flash point: > 140 °F

Flammable Limits: Not applicable.

Fire: Not normally a fire hazard. May cause fire on contact with organic material.

Explosion: Not normally an explosion hazard.

Fire Extinguishing Media: Any means suitable for surrounding fire.

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

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	NIOSH IDLH
Ammonium alum	Not Regulated	Not Regulated	Not Regulated	Not Regulated
Ethanol	STEL: 1000 ppm	TWA 1000 ppm	TWA 1000 ppm	3300 ppm
Methanol	TWA: 200 ppm(skin) STEL: 250 ppm	TWA 200 ppm (skin)	TWA 200 ppm (skin)	6000 ppm
Isopropanol	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm	TWA: 400 ppm	2000 ppm
Hematoxylin	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 purple liquid with a sweet odor. Has the characteristic odor of alcohol.

Flash point: > 60 °C (> 140 °F) TCC
Auto ignition temperature: Not applicable

Boiling point range: No data

Decomposition temperature: No data

Melting point: ~0 °C

pH: 2.5

Vapor pressure (mm Hg): 18 @ 20 °C

Viscosity: No data

Flammable Limits: Not applicable.

Boiling Point: 102 °C

Density: 1.02 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: Manganese salts.

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
Ammonium alum	No Data	No Data	No Data
Ethanol	10470 mg/kg (Rat)	No Data	5900 mg/m ³ /6 h (Rat)
Methanol	5628 mg/kg (Rat)	15,800 mg/kg (Rabbit)	64,000 ppm/4h (Rat)
Isopropanol	>4700 mg/kg (Rat)	13,000 mg/kg (Rabbit)	19,000 ppm/8h (Rat)
Hematoxylin	400 mg/kg (Rat)	No Data	No Data

Cancer lists

<i>Ingredient</i>	<i>Known Carcinogenicity?</i>	<i>NTP?</i>	<i>Anticipated?</i>	<i>IARC Category</i>
Ammonium alum	No	No	No	None
Ethanol	No	No	No	None
Methanol	No	No	No	None
Isopropanol	No	No	No	3
Hematoxylin	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

Environmental Toxicity: Low

For ammonium alum

Toxicity to freshwater fish: No data

Toxicity to invertebrates: No data

Toxicity to freshwater algae: No data

For ethyl alcohol.

Toxicity to freshwater fish (fathead minnow):LC50 = 14200 mg/l, 96 h
Toxicity to invertebrates (water flea): EC50 = 9268 mg/l, 48 h
Toxicity to freshwater algae (Chlorella vulgaris): EC50 = 275 mg/l, 72 h

For hematoxylin

Toxicity to fish: No data
Toxicity to invertebrates): No data
Toxicity to algae: No data

For Isopropanol

Toxicity to freshwater fish (blue gill):LC50 = 9640 mg/l, 96 h
Toxicity to invertebrates (water flea): EC50 = 1000 mg/l, 48 h
Toxicity to freshwater algae (Pseudokirchneriella subcapitata): EC50 = >1000 mg/l, 72 h

For methanol

Toxicity to freshwater fish (blue gill):LC50 = 15,400 mg/l, 96 h
Toxicity to invertebrates (water flea): EC50 = 18,260 mg/l, 96 h
Toxicity to freshwater algae (Pseudokirchneriella subcapitata): EC50 = 22,000 mg/l, 72 h

Section XIII - Disposal Considerations

Usually not restricted but local ordinances vary. Insure compliance with all government regulations

Section XIV - Transportation Information

Not regulated by DOT or IATA.

Section XV - Regulatory Information

Chemical Inventory Status

<i>Ingredient</i>	<i>TSCA</i>	<i>EC</i>
ammonium alum	Yes	Yes
Ethanol	Yes	Yes
Methanol	Yes	Yes
Hematoxylin	Yes	Yes
Isopropanol	Yes	Yes

Federal, State and International Regulations

<i>Ingredient</i>	<i>SARA 302</i>		<i>SARA 313</i>		<i>RCRA</i>	<i>TSCA</i>	<i>Ca. Prop 65</i>
	<i>RQ</i>	<i>TPQ</i>	<i>List</i>	<i>Category</i>	<i>261.33</i>	<i>8(D)</i>	
Ammonium alum	No	No	No	No	No	No	No
Ethanol	No	No	No	No	No	No	No
Isopropanol	No	No	Yes	No	No	No	No
Methanol	No	No	Yes	No	U154	No	Yes
Hematoxylin	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: S090
Revision number: 1.05
Revision Date: Jan 5, 2024