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Section I - Product Identification

Product: A solution of aluminum ammonium sulfate, reagent alcohol, hematoxylin and mercuric oxide in water.

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

Uses advised against: Intended for laboratory use only.

Manufacturer Identification

Medical Chemical Corp.
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Torrance, CA 90501

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

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

Acute toxicity (Oral): Category 4 (H304). Harmful if swallowed.

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

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

Specific organ toxicity (Repeated Exposure): Category 1 (H372). Causes damage to organs through prolonged or repeated exposure

Germ cell Mutagenicity: Category 2 (H341). Suspected of causing genetic defects.

Reproductive toxicity: Category 2 (H361F). Suspected of damaging fertility.

Signal word: Danger

Hazard statements

According to the harmonized classification and labeling required by OSHA and the EU, this substance causes serious eye irritation. In case of skin contact immediately remove all contaminated clothing. Rinse with water or shower. If swallowed rinse mouth with water and immediately call a poison control center. Administer antidote for mercury poisoning if available. Mercury salts are extremely toxic as well as experimental teratogens and mutagens.

Precautionary statements

- P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
- P233 Keep container tightly closed.
- 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: Hazardous *Flammability:* Low *Reactivity:* None *Contact:* Hazardous
Recommended safety equipment: safety goggles, lab coat and proper gloves

NFPA Ratings

Health = 2 Flammability = 1 Reactivity = 0

Potential Health Effects

Inhalation or contact may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Can be absorbed through skin. Because of the genetic toxicity of mercury compounds. Pregnant women should be particularly vigilant when handling this item. Signs of exposure to mercury include increased salivation, foul breath, abdominal pain, bloody diarrhea and inflammation and/or ulceration of the mucous membranes. Mercuric oxide is highly toxic by ingestion, inhalation, or skin absorption. Very short exposure to small

quantities may cause death or permanent injury. Following ingestion, mercuric oxide is readily converted to mercuric chloride, the most dangerous mercury compound. Mercuric oxide dust has a corrosive effect on eyes, skin, and respiratory tract. People with a history of allergies or known sensitization to mercury, chronic respiratory disease, nervous system disorders, or kidney disorders are at increased risk from exposure.

Inhalation: The vapor pressure of mercuric oxide is low but breathing the mist or vapors will produce the same effects as ingestion..

Ingestion: Ingestion will produce CNS disturbance, dizziness, photophobia, headache, stupor, coma and death. Mercuric compounds are toxic cumulative poisons.

Skin contact: Skin contact may result in burns and/or dermatitis. Repeated contact with mercuric compounds can cause systemic poisoning.

Eye contact: Irritating and corrosive.

Chronic Exposure: Mercuric compounds are a cumulative poison..

Aggravation of preexisting conditions: Impaired kidney and liver function may be aggravated by exposure. Preexisting eye, skin, and respiratory conditions may also be aggravated.

Section III - Composition/Information on Components

Ingredient	CAS #	EC/List No.	%
Aluminum Ammonium Sulfate	7784-25-0	232-055-3	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
Mercuric Oxide	21908-53-2	244-654-7	<0.1% w/w
Hematoxylin	517-28-2	208-237-3	0.35% w/w

Section IV - First Aid Measures

General Advice: Get immediate medical attention..

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

Ingestion: Rinse mouth with water but do not induce vomiting. Aspiration of into the lungs may prove fatal. If the patient is conscious administer water or milk to dilute the poison and an absorbent such as activated charcoal. Specific antidotes for mercury poisoning are also available. 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. Launder clothing before reuse. Get medical advice if needed.

Eye Contact: Remove contact lenses if feasible and flush with water for at least 15 minutes. Get medical attention.

Section V - Fire Fighting Measures

Flash point: 62 °C (144 °F) TCC

Fire: Not normally a fire Hazard.

Explosion: Not Normally an explosion hazards.

Fire Extinguishing Media: Any means suitable for surrounding fire.

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

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 at a licensed disposal site. Take precautions against static ignition. Should not be released into the environment.

Section VII - Handling and Storage

P403+P233+P102+P405; Store in a well-ventilated place out of the reach of children. Keep container tightly closed. Store locked up. Protect from light.

Section VIII - Exposure Control/Personal Protection

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aluminum Ammonium Sulfate	Not Regulated	Not Regulated	Not Regulated
Ethanol	1000 ppm	1000 ppm	3300 ppm
Isopropanol	400 ppm	400 ppm	2000 ppm
Methanol	200 ppm (skin)	200 ppm (skin)	6000 ppm
Hematoxylin	Not Regulated	Not Regulated	Not Regulated
Mercuric Oxide	0.025 mg/m ³ TWA	0.1 mg/m ³ (Hg) Ceil	0.025 mg/m ³ TWA

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 required.

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

Section IX - Physical and Chemical Properties

Boiling Point: 102 °C (216 °F)

Density: 1.02 g/ml

Vapor pressure (mm Hg @ 25 °C): Unknown

Evaporation Rate (Water = 1): 1

Vapor Density (air = 1): 1.6

Solubility: Infinitely miscible with water

Appearance and Odor: A purple liquid with a sweet odor. Has the characteristic odor of alcohol.

Section X - Stability and Reactivity

Stability: Stable under normal conditions.

Hazardous Decomposition Products: Does not decompose when used for intended use.

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
Aluminum Ammonium Sulfate	No Data	No Data	No Data
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)
Methanol	5628 mg/kg (Rat)	15,800 mg/kg (Rabbit)	64,000 ppm/4h (Rat)
Hematoxylin	400 mg/kg (Rat)	No Data	No Data
Mercuric Oxide	18 mg/kg (Rat)	315 mg/kg (Rat)	No Data

Cancer lists

Ingredient	Known Carcinogenicity?	NTP?	Anticipated?	IARC Category
Aluminum Ammonium Sulfate	No	No	No	None
Ethanol	No	No	No	None
Methanol	No	No	No	None
Isopropanol	No	No	No	3
Hematoxylin	No	No	No	None
Mercuric Oxide	No	No	No	3

Section XII - Ecological Information

Mercuric compounds are an environmental hazard and will bioaccumulate in the food chain.

Environmental Fate: Unknown

Soil Mobility: Unknown

Environmental Toxicity: (H410) Hazardous to the aquatic environment, long-term hazard

Component	Freshwater Fish	Water Flea	Freshwater algae
Aluminum Ammonium Sulfate	No Data	No Data	No Data
Ethanol	LC50 100 mg/l 96 h	LC50 = 100 mg/L 48 h	LC50 = 100 mg/l 72 h
Methanol	LC50 >100 mg/l 96 h	LC50 >1000 mg/l 48 h	LC50 > 22 g/l 96 h
Isopropanol	LC50 > 9640 mg/l 96 h	LC50 >7550 mg/l 48 h	LC50 >1000 mg/l 72 h
Hematoxylin	No Data	No Data	No Data
Mercuric Oxide	No data	No data	No data

Section XIII - Disposal Considerations

Incineration at a licensed chemical disposal facility is the preferred disposal method. Local governments usually forbid drain disposal of mercury compounds. Dispose of contents and container in accord with all applicable regulations.

Section XIV - Transportation Information

DOT Shipping name: Flammable Liquid, Toxic, N.O.S. (Mercuric oxide) Hazard Class: 3, 6.1

Packaging Group II Hazard Label: Flammable liquid, Poison UN Identification Number: UN1992

Section XV - Regulatory Information

Chemical Inventory Status

<i>Ingredient</i>	<i>TSCA</i>	<i>EC</i>
Aluminum Ammonium Sulfate	Yes	Yes
Ethanol	Yes	Yes
Methanol	Yes	Yes
Hematoxylin	Yes	Yes
Isopropanol	Yes	Yes
Mercuric oxide	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>RQ</i>	<i>TPQ</i>	<i>List</i>	<i>Category</i>	<i>261.33 8(D)</i>	<i>Ca. Prop 65</i>	
Aluminum Ammonium Sulfate	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
Mercuric Oxide	500	500	No	Mercury Cmpd	No	No	Yes

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

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



This product contains methanol and mercuric oxide which are known to the state of California to cause birth defects or other reproductive harm. For more information go to 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.

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