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Section I - Product Identification

Product: An aqueous solution of potassium citrate, magnesium sulfate and N-ethylmaleimide.

Intended Uses: Normally used as a wash reagent for tissue samples.

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.
- 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:* None *Reactivity:* Stable *Contact:* Slight
Recommended safety equipment: Not normally required.

NFPA Ratings

Health = 1. May 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
Potassium Citrate	6100-05-6	612-062-1	0.5%
Magnesium Sulfate	10034-99-8	600-073-4	<0.1%
N-Ethylmaleimide	128-53-0	204-892-4	<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 advice.

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: None.

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
Potassium Citrate	Not Regulated	Not Regulated	Not Regulated
Magnesium Sulfate	Not Regulated	Not Regulated	Not Regulated
N-Ethylmaleimide	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 recommended as part of good laboratory practice.

Eye Protection: Laboratory safety goggles or similar products are recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties

Appearance and Odor: A clear, colorless and odorless solution.

Flash point: Not applicable.

Auto ignition temperature: Not applicable

Boiling point range: No data

Flammable Limits: Not applicable.

Boiling Point: 102 °C (212 °F)

Density: 1.00 g/ml @ 22.5 °C

Decomposition temperature: No data
Melting point: ~ 0 °C
pH: 6.9
Vapor pressure (mm Hg): 18 @ 20 °C
Viscosity: ~ 0.01 poise

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 heat.

Section XI - Toxicological Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium Citrate	No Data	No Data	No Data
Magnesium Sulfate	> 1000 mg/kg (Rat)	> 1000 mg/kg (Rat)	No Data
N-Ethylmaleimide	25 mg/kg (Rat)	> 100 mg/kg (Guinea Pig)	No Data

Cancer lists

<i>Ingredient</i>	<i>Known Carcinogenicity?</i>	<i>NTP?</i>	<i>Anticipated?</i>	<i>IARC Category</i>
Potassium citrate	No	No	No	No
Magnesium Sulfate	No	No	No	No
N-Ethylmaleimide	No	No	No	No

Aspiration hazard: No data.

Developmental effects: No data

Irritation: No data

Mutagenic effects: No data

Sensitization: No data

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 magnesium sulfate:

Toxicity to freshwater fish (fathead minnow): < 500 mg/l, 96 h

Toxicity to invertebrates (water fleas): < 100 mg/l, 48 h

Toxicity to freshwater algae (green algae): < 1,000 mg/l

For n-ethylmaleimide:

Toxicity to freshwater fish: No data

Toxicity to invertebrates: No data

Toxicity to freshwater algae: No data

For potassium citrate:

Toxicity to freshwater fish: No data

Toxicity to invertebrates: No data

Toxicity to freshwater algae: No data

Section XIII - Disposal Considerations

Usually not restricted but local ordinances vary. Insure compliance with all local, state and federal 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>
Potassium Citrate	Yes	Yes
Magnesium Sulfate	Yes	Yes
N-Ethylmaleimide	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>	
Potassium Citrate	No	No	No	No	No	No	No
Magnesium Sulfate	No	No	No	No	No	No	No
N-Ethylmaleimide	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.

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