

## Section 1 Identification

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**INNOVATING SCIENCE**® by Aldon  
 "Cutting edge science for the classroom"  
 221 Rochester Street  
 Avon, NY 14414-9409  
 (585) 226-6177

**CHEMTREC 24 Hour Emergency  
 Phone Number (800) 424-9300**  
 For laboratory and industrial use only.  
 Not for drug, food or household use.

|                |                         |
|----------------|-------------------------|
| <b>Product</b> | <b>BLOOD, SIMULATED</b> |
|----------------|-------------------------|

|                 |      |
|-----------------|------|
| <b>Synonyms</b> | None |
|-----------------|------|

## Section 2 Hazards identification

**Signal word:** DANGER**Pictograms:** GHS08 / GHS07**Target organs:** None known.**GHS Classification:**

Acute tox. (Category 4)

Carc. (Category 1B)

Repr. (Category 2)

Skin irrit. (Category 2)

Eye irrit. (Category 2B)

**GHS Label information: Hazard statement(s):**

H302: Harmful if swallowed.

H315: Causes skin irritation.

H320: Causes eye irritation.

H350: May cause cancer.

H361: Suspected of damaging fertility or the unborn child.

**Precautionary statement(s):**

P202: Do not handle until all safety precautions have been read and understood.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P312: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.

P302+P352: IF ON SKIN: Wash with plenty of water and soap.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical attention.

P308+P313: IF exposed or concerned: Get medical attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

P405: Store locked up.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

**Hazards not otherwise classified:**

Health hazards not otherwise classified (HHNOC) - Not Known

Physical hazards not otherwise classified (PHNOC) - Not Known

## Section 3 Composition / information on ingredients

| Chemical Name                   | CAS #      | %     | EINECS    |
|---------------------------------|------------|-------|-----------|
| Water                           | 7732-18-5  | 95.4% | 231-791-2 |
| Magnesium sulfate, heptahydrate | 10034-99-8 | 2.0%  | 231-298-2 |
| Magnesium nitrate, hexahydrate  | 13446-18-9 | 2.0%  | 233-826-7 |
| Congo red (C.I. No. 22120)      | 573-58-0   | 0.5%  | 209-358-4 |
| FD&C yellow #6 (C.I. No. 15985) | 2783-94-0  | 0.1%  | 220-491-7 |

## Section 4 First aid measures

**INGESTION:** MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** MAY CAUSE IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** MAY CAUSE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. Causes eye irritation.

**SKIN ABSORPTION:** MAY BE HARMFUL IF ABSORBED THROUGH SKIN. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. Causes skin irritation.

## Section 5 Fire fighting measures

**Suitable Extinguishing Media:** Use extinguishing agent suitable for type of surrounding fire.

**Protective Actions for Fire-fighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

**Specific Hazards:** In fire conditions, water may evaporate from this solution which may cause hazardous decomposition products to be formed as dust or fume.

## Section 6 Accidental release measures

**Personal Precautions:** Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

**Environmental Precautions:** Avoid runoff into storm sewers and ditches which lead to waterways.

**Containment and Cleanup:** Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water. Avoid runoff into storm sewers and ditches which lead to waterways.

**Precautions for Safe Handling:** Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

**Conditions for Safe Storage:** Store in a cool, well-ventilated area away from incompatible substances.

## Section 8 Exposure controls / personal protection

| Exposure Limits: | Chemical Name        | ACGIH (TLV)       | OSHA (PEL)        | NIOSH (REL)       |
|------------------|----------------------|-------------------|-------------------|-------------------|
|                  | No components listed | None established. | None established. | None established. |

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9 Physical and chemical properties

|   |   |   |
|---|---|---|
| <b>Appearance:</b> Red liquid.                                    | <b>Evaporation rate ( Water = 1):</b> <1                              | <b>Partition coefficient:</b> Data not available      |
| <b>Odor:</b> No odor.   | <b>Flammability (solid/gas):</b> Data not available.                  | <b>Auto-ignition temperature:</b> Data not available  |
| <b>Odor threshold:</b> Data not available.                        | <b>Explosion limits: Lower / Upper:</b> Data not available            | <b>Decomposition temperature:</b> Data not available. |
| <b>pH:</b> Data not available.                                    | <b>Vapor pressure (mm Hg):</b> 14 (water)                             | <b>Viscosity:</b> Data not available.                 |
| <b>Melting / Freezing point:</b> Approximately 0°C (32°F) (water) | <b>Vapor density (Air = 1):</b> 0.7 (water)                           | <b>Molecular formula:</b> Mixture                     |
| <b>Boiling point:</b> Approximately 100°C (212°F) (water)         | <b>Relative density (Specific gravity):</b> Approximately 1.0 (water) | <b>Molecular weight:</b> Mixture                      |
| <b>Flash point:</b> Data not available                            | <b>Solubility(ies):</b> Complete in water.                            |   |

## Section 10 Stability and reactivity

**Chemical stability:** Stable **Hazardous polymerization:** Will not occur.

**Conditions to avoid:** Excessive temperatures which cause evaporation.

**Incompatibilities with other materials:** Strong oxidizers and reducing agents.

**Hazardous decomposition products:** Carbon oxides, nitrogen oxides and sulfur oxides.

## Section 11 Toxicological information

**Acute toxicity:** Data not available

**Skin corrosion/irritation:** Data not available

**Serious eye damage/irritation:** Data not available

**Respiratory or skin sensitization:** Data not available


**Germ cell mutagenicity:** Data not available

**Carcinogenicity:** Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

CA Prop 65:  WARNING! : This product can expose you to, Benzidine-based dyes, which are known to the State of California to cause cancer.

**Reproductive toxicity:** Data not available

**STOT-single exposure:** Data not available

**STOT-repeated exposure:** Data not available

**Aspiration hazard:** Data not available

**Potential health effects:**

Inhalation: May be harmful if inhaled.

Ingestion: May be harmful by ingestion.

Skin: Contact may cause irritation.

Eyes: Contact may cause irritation.

**Signs and symptoms of exposure:** Contact with eyes may cause transient irritation. To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.

**Additional information: RTECS #:** No data available

## Section 12 Ecological information

**Toxicity to fish:** No data available

**Toxicity to daphnia and other aquatic invertebrates:** No data available

**Toxicity to algae:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**PBT and vPvB assessment:** No data available

**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14 Transport information

**UN/NA number:** Not applicable

**Shipping name:** Not Regulated

**Hazard class:** Not applicable

**Packing group:** Not applicable

**Reportable Quantity:** No


**Marine pollutant:** No

**Exceptions:** Not applicable

**2020 ERG Guide #:** Not applicable

## Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

| Component         | TSCA   | CERLCA (RQ) | RCRA code  | DSL    | NDSL       | CA Prop 65   |
|-------------------|--------|-------------|------------|--------|------------|--|
| Magnesium sulfate | Listed | Not listed  | Not listed | Listed | Not listed |  WARNING -Cancer -<br>www.P65Warnings.ca.gov. |
| Magnesium nitrate | Listed | Not listed  | D001       | Listed | Not listed |  |
| Congo red         | Listed | Not listed  | Not listed | Listed | Not listed |  |

## Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

## Section 1 Identification

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 For laboratory and industrial use only.  
 Not for drug, food or household use.

|                |                        |
|----------------|------------------------|
| <b>Product</b> | <b>DIALYSIS TUBING</b> |
|----------------|------------------------|

|                 |     |
|-----------------|-----|
| <b>Synonyms</b> | N/A |
|-----------------|-----|

## Section 2 Hazards identification

**This substance or mixture has not been classified at this time according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.**

**Signal word:** Not a dangerous substance according to GHS

**Pictograms:** Not a dangerous substance according to GHS

**Target organs:** None known

**GHS Classification:**

Not a dangerous substance according to GHS

**GHS Label information: Hazard statement(s):**

Not a dangerous substance according to GHS

**Precautionary statement(s):**

Not a dangerous substance according to GHS

Semi-permeable membrane tubing made of regenerated cellulose from cotton linters, one of the purest naturally occurring sources of cellulose. Contains water, glycerol as a humectant, and small quantities of sulfur compounds, primarily as polysulfides (approximately 0.1%). Store in air-tight container or rehumidify before use. Contains a solution which may cause irritation to eyes. In case of contact with eyes, flush thoroughly with water for 15 minutes.

**Hazards not otherwise classified:**

Health hazards not otherwise classified (HHNOC) - Not Known

Physical hazards not otherwise classified (PHNOC) - Not Known

## Section 3 Composition / information on ingredients

| Chemical Name   | CAS # | % | EINECS |
|---|-------|---|--------|
| Contains water, glycerol as a humectant, and small quantities of sulfur compounds, primarily as polysulfides (approximately 0.1%). Both the glycerol and sulfides may be removed by proper washing. |       |   |        |

## Section 4 First aid measures

**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. Causes eye irritation.

**SKIN ABSORPTION:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. Causes skin irritation.

## Section 5 Fire fighting measures

**Extinguishing Media:** Use any media suitable for extinguishing supporting fire.

**General information:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

## Section 6 Accidental release measures

Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

**Section 7 Handling and storage**

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

**Handling:** Avoid contact with eyes, skin and clothing. Avoid ingestion. Wash thoroughly after handling.

**Storage:** Store in a cool, well-ventilated area away from incompatible substances.

**Section 8 Exposure controls / personal protection**

| Exposure Limits: | Chemical Name        | ACGIH (TLV)       | OSHA (PEL)        | NIOSH (REL)       |
|------------------|----------------------|-------------------|-------------------|-------------------|
|                  | No components listed | None established. | None established. | None established. |

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures.

**Section 9 Physical and chemical properties**

|  |   |  |
|--|---|--|
| <b>Appearance:</b> Solid, transparent, light amber tubing.<br><b>Odor:</b> No odor.<br><b>Odor threshold:</b> Not applicable<br><b>pH:</b> Not applicable<br><b>Melting / Freezing point:</b> Not applicable<br><b>Boiling point:</b> Not applicable<br><b>Flash point:</b> Not applicable | <b>Evaporation rate ( = 1):</b> Not applicable<br><b>Flammability (solid/gas):</b> Not applicable<br><b>Explosion limits: Upper / Lower:</b> Not applicable<br><b>Vapor pressure (mm Hg):</b> Not applicable<br><b>Vapor density (Air = 1):</b> Not applicable<br><b>Relative density (Specific gravity):</b> Not applicable<br><b>Solubility(ies):</b> Insoluble | <b>Partition coefficient: (n-octanol / water):</b> Not applicable<br><b>Auto-ignition temperature:</b> Not applicable<br><b>Decomposition temperature:</b> Not applicable<br><b>Viscosity:</b> Not applicable<br><b>Molecular formula:</b> Not applicable<br><b>Molecular weight:</b> Not applicable |
|--|---|--|

**Section 10 Stability and reactivity**

**Chemical stability:** Stable **Hazardous polymerization:** Will not occur.

**Conditions to avoid:** Do not allow product to dry out.

**Incompatibilities with other materials:** No specific data.

**Hazardous decomposition products:** No specific data.

**Section 11 Toxicological information**

**Acute toxicity:** Oral-rat LD50: 12,000 mg/kg [Glycerol]

**Skin corrosion/irritation:** Non-irritating [Glycerol]

**Serious eye damage/irritation:** Non-irritating [Glycerol]

**Respiratory or skin sensitization:** Non-sensitizing [Glycerol]

**Germ cell mutagenicity:** Data not available

**Carcinogenicity:** Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

**Reproductive toxicity:** Data not available

**STOT-single exposure:** Data not available

**STOT-repeated exposure:** Data not available

**Aspiration hazard:** Data not available

**Potential health effects:**

Inhalation: Not expected to cause ill effects.

Ingestion: Not expected to cause ill effects.

Skin: Not expected to cause ill effects.

Eyes: Contact may cause irritation.

**Signs and symptoms of exposure:** To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.

**Additional information: RTECS #:** None assigned.

**Section 12 Ecological information**

**Toxicity to fish:** No data available

**Toxicity to daphnia and other aquatic invertebrates:** No data available

**Toxicity to algae:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**PBT and vPvB assessment:** No data available

**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Section 13 Disposal considerations**

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

**Section 14 Transport information**

**UN/NA number:** Not applicable

**Shipping name:** Not Regulated

**Hazard class:** Not applicable

**Packing group:** Not applicable

**Reportable Quantity:** No

**Marine pollutant:** No

**Exceptions:** Not applicable

**2020 ERG Guide #** Not applicable

**Section 15 Regulatory information**

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

| Component          | TSCA | CERCLA (RQ) | RCRA code | DSL | NDSL | CA Prop 65   |
|--------------------|------|-------------|-----------|-----|------|--|
| Data not available |      |             |           |     |      | This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity. |

**Section 16 Other information**

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.