

## Section 1 Identification

Page E1 of E2

**Innovating Science®** by Aldon Corporation  
"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.

**Product** SIMULATED BLOOD, TYPE A+

**Synonyms** Simulated Blood, Type A Positive / Donor #1

## Section 2 Hazards identification

**Signal word:** WARNING

**Pictograms:** GHS07

**Target organs:** Blood



**GHS Classification:**

Acute toxicity, oral (Category 5)

Skin irritation (Category 2)

Eye irritation (Category 2A)

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

H303: May be harmful if swallowed.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

**Precautionary statement(s):**

P264: Wash hands thoroughly after handling.

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

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

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

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

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

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

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

P312: Call a POISON CENTER or doctor if you feel unwell.

**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 | 90.1% | 231-791-2                              |
| Aluminum nitrate, nonahydrate | 7784-27-2 | 9.3%  | 236-751-8 (anhydrous CAS # 13473-90-0) |
| Food Coloring                 | Mixture   | 0.6%  | Mixture                                |

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

**EYE CONTACT:** CAUSES SERIOUS EYE 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.

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

## Section 5 Fire fighting measures

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

**Section 7 Handling and storage**

Page E2 of E2

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

**Section 10 Stability and reactivity**

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

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

**Incompatible materials:** Reducing agents, organic materials.

**Hazardous decomposition products:** Nitrogen oxides.

**Section 11 Toxicological information**

**Acute toxicity: Aluminum nitrate:** Oral-rat LD50: 3,671 mg/kg

**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.

**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 if swallowed.

Skin: Contact with skin may cause irritation.

Eyes: Causes serious eye 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 #: Aluminum nitrate:** BD1050000

**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

**2016 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   |
|-------------------------------|--------|-------------|------------|--------|------------|--|
| Aluminum nitrate, nonahydrate | Listed | Not listed  | Not listed | Listed | Not listed | 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.

## Section 1 Identification

Page E1 of E2

**Innovating Science**®  
"cutting edge science for the classroom"

by Aldon Corporation

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>SIMULATED BLOOD, TYPE B-</b>             |
| <b>Synonyms</b> | Simulated Blood, Type B Negative / Donor #2 |

## Section 2 Hazards identification

**Signal word:** WARNING  
**Pictograms:** GHS07  
**Target organs:** Blood



**GHS Classification:**  
Acute toxicity, oral (Category 5)  
Skin irritation (Category 2)  
Eye irritation (Category 2B)

**GHS Label information: Hazard statement(s):**  
H303: May be harmful if swallowed.  
H315: Causes skin irritation.  
H320: Causes eye irritation.

**Precautionary statement(s):**

P264: Wash hands thoroughly after handling.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352: IF ON SKIN: Wash with plenty of water and soap.  
P332+P313: If skin irritation occurs: Get medical attention.  
P361+P364: Take off immediately all contaminated clothing and wash it before reuse.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313: If eye irritation persists: Get medical attention.  
P312: Call a POISON CENTER or doctor if you feel unwell.

**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  | 89.4% | 231-791-2 |
| Calcium nitrate, tetrahydrate | 13477-34-4 | 10.0% | 233-332-1 |
| Food Coloring                 | Mixture    | 0.6%  | Mixture   |

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

**EYE CONTACT:** CAUSES EYE 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.

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

## Section 5 Fire fighting measures

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

**Section 7 Handling and storage**

Page E2 of E2

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

**Section 10 Stability and reactivity**

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

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

**Incompatible materials:** Ammonia, hydrozine and other reducing agents.

**Hazardous decomposition products:** Nitrogen oxides.

**Section 11 Toxicological information**

**Acute toxicity: Calcium nitrate:** Oral-rat LD50: 3,900 mg/kg

**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.

**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 if swallowed.

Skin: Contact with skin may cause irritation.

Eyes: Causes eye 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 #: Calcium nitrate:** EW3000000

**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

**2016 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   |
|-------------------------|--------|-------------|------------|--------|------------|--|
| Calcium nitrate (solid) | Listed | Not listed  | Not listed | Listed | Not listed | 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.

## Section 1 Identification

Page E1 of E2

**Innovating Science®** by Aldon Corporation  
"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.

**Product** SIMULATED BLOOD, TYPE AB+  
**Synonyms** Simulated Blood, Type AB Positive / Donor #3

## Section 2 Hazards identification

**Signal word:** WARNING  
**Pictograms:** GHS07  
**Target organs:** Blood



**GHS Classification:**  
Acute toxicity, oral (Category 5)  
Skin irritation (Category 2)  
Eye irritation (Category 2A)

**GHS Label information: Hazard statement(s):**  
H303: May be harmful if swallowed.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.

**Precautionary statement(s):**

P264: Wash hands thoroughly after handling.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352: IF ON SKIN: Wash with plenty of water and soap.  
P332+P313: If skin irritation occurs: Get medical attention.  
P362+P364: Take off contaminated clothing and wash it before reuse.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313: If eye irritation persists: Get medical attention.  
P312: Call a POISON CENTER or doctor if you feel unwell.

**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  | 80.1% | 231-791-2                              |
| Calcium nitrate, tetrahydrate | 13477-34-4 | 10.0% | 233-332-1                              |
| Aluminum nitrate, nonahydrate | 7784-27-2  | 9.3%  | 236-751-8 (anhydrous CAS # 13473-90-0) |
| Food Coloring                 | Mixture    | 0.6%  | Mixture                                |

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

**EYE CONTACT:** CAUSES SERIOUS EYE 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.

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

## Section 5 Fire fighting measures

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

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

|                  |                 |                  |                  |                  |
|------------------|-----------------|------------------|------------------|------------------|
| Exposure Limits: | Chemical Name   | ACGIH (TLV)      | OSHA (PEL)       | NIOSH (REL)      |
|                  | Calcium nitrate | None established | None established | None established |

**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.

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

**Chemical stability:** Stable **Hazardous polymerization:** Will not occur.  
**Conditions to avoid:** Excessive temperatures to cause evaporation.  
**Incompatible materials:** Ammonia, hydrazine and other reducing agents.  
**Hazardous decomposition products:** Nitrogen oxides.

**Acute toxicity:** **Calcium nitrate:** Oral-rat LD50: 3,900 mg/kg / **Aluminum nitrate:** Oral-rat LD50: 3,671 mg/kg

**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.

**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 if swallowed.

Skin: Contact with skin may cause irritation.

Eyes: Causes serious eye 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 #:** **Calcium nitrate:** EW3000000 / **Aluminum nitrate:** BD1050000

**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.

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.

|                                     |  |                                |                             |
|-------------------------------------|--|--------------------------------|-----------------------------|
| <b>UN/NA number:</b> Not applicable | <b>Shipping name:</b> Not Regulated    |                                |                             |
| <b>Hazard class:</b> Not applicable | <b>Packing group:</b> Not applicable   | <b>Reportable Quantity:</b> No | <b>Marine pollutant:</b> No |
| <b>Exceptions:</b> Not applicable   | <b>2016 ERG Guide #</b> Not applicable |                                |                             |

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   |
|-------------------------------|--------|-------------|------------|--------|------------|--|
| Calcium nitrate (solid)       | Listed | Not listed  | Not listed | Listed | Not listed | This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity. |
| Aluminum nitrate, nonahydrate | Listed | Not listed  | Not listed | Listed | Not listed |  |

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

Page E1 of E2

**Innovating Science<sup>®</sup>** by Aldon Corporation 221 Rochester Street  
"cutting edge science for the classroom" 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.

**Product** SIMULATED BLOOD, TYPE O-**Synonyms** Simulated Blood, Type O Negative / Donor #4

## Section 2 Hazards identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.

**Signal word:** None required  
**Pictograms:** No symbol required  
**Target organs:** None known

**GHS Classification:** None required  
**GHS Label information: Hazard statement:** None required  
**Precautionary statement:** None required

**Supplemental information:**

Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.

**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 | >99% | 231-791-2 |
| Food Coloring | Mixture   | 0.6% | Mixture   |

## 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.

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

## Section 5 Fire fighting measures

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

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

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

**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.

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

**Chemical stability:** Stable **Hazardous polymerization:** Will not occur.  
**Conditions to avoid:** Excessive temperatures to cause evaporation.  
**Incompatible materials:** Strong oxidizers and reducing agents may destroy color.  
**Hazardous decomposition products:** Carbon oxides, nitrogen oxides, sulfur oxides.

**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.  
**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 if swallowed.  
 Skin: Repeated or prolonged contact with skin may cause irritation.  
 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 #:** Data not available

**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.

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.

|                                     |  |                                |                             |
|-------------------------------------|--|--------------------------------|-----------------------------|
| <b>UN/NA number:</b> Not applicable | <b>Shipping name:</b> Not Regulated    |                                |                             |
| <b>Hazard class:</b> Not applicable | <b>Packing group:</b> Not applicable   | <b>Reportable Quantity:</b> No | <b>Marine pollutant:</b> No |
| <b>Exceptions:</b> Not applicable   | <b>2016 ERG Guide #</b> Not applicable |                                |                             |

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   |
|---|--------|-------------|------------|--------|------------|--|
| All components listed with the following agencies | Listed | Not listed  | Not listed | Listed | Not listed | This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity. |

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

Page E1 of E2

**Innovating Science®** by Aldon Corporation  
"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>SIMULATED ANTI-SERUM ANTI-A</b>    |
| <b>Synonyms</b> | Simulated Anti-A Serum / Anti-A Serum |

## Section 2 Hazards identification

**Signal word:** WARNING  
**Pictograms:** No symbol required  
**Target organs:** Liver

**GHS Classification:**  
Eye irritation (Category 2B)

**GHS Label information: Hazard statement:**  
H320: Causes eye irritation.

**Precautionary statement:**  
P264: Wash hands thoroughly after handling.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313: If eye irritation persists: Get medical attention.

**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 | 91.99% | 231-791-2 |
| Sodium salicylate             | 54-21-7   | 8.00%  | 200-198-0 |
| FD&C Blue #1 (C.I. No. 42090) | 3844-45-9 | 0.001% | 223-339-8 |

## 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:** CAUSES EYE 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.

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

## 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.

**Section 7 Handling and storage**

Page E2 of E2

**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. Light sensitive.

**Section 8 Exposure controls / personal protection**

| Exposure Limits: | Chemical Name     | ACGIH (TLV)     | OSHA (PEL)      | NIOSH (REL)     |
|------------------|-------------------|-----------------|-----------------|-----------------|
|                  | Sodium salicylate | Not established | Not established | Not 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> Liquid. Clear blue.<br><b>Odor:</b> No odor.<br><b>Odor threshold:</b> Data not available.<br><b>pH:</b> Data not available.<br><b>Melting / Freezing point:</b> Approximately 0°C (32°F) (water)<br><b>Boiling point:</b> Approximately 100°C (212°F) (water)<br><b>Flash point:</b> Data not available | <b>Evaporation rate ( Water = 1):</b> <1<br><b>Flammability (solid/gas):</b> Data not available.<br><b>Explosion limits: Lower / Upper:</b> Data not available<br><b>Vapor pressure (mm Hg):</b> 14 (water)<br><b>Vapor density (Air = 1):</b> 0.7 (water)<br><b>Relative density (Specific gravity):</b> Approximately 1.0 (water)<br><b>Solubility(ies):</b> Complete in water. | <b>Partition coefficient:</b> Data not available<br><b>Auto-ignition temperature:</b> Data not available<br><b>Decomposition temperature:</b> Data not available.<br><b>Viscosity:</b> Data not available.<br><b>Molecular formula:</b> Mixture<br><b>Molecular weight:</b> Mixture |
|---|---|---|

**Section 10 Stability and reactivity**

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

**Conditions to avoid:** Excessive temperatures which cause evaporation. Protect from light.

**Incompatible materials:** Strong oxidizers, strong acids.

**Hazardous decomposition products:** Carbon oxides, sodium oxides.

**Section 11 Toxicological information**

**Acute toxicity:** Oral-rat LD50: 11,625 mg/kg (acute toxicity estimate)

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

**Serious eye damage/irritation:** Eyes-rabbit - mild irritant

**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: 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 be a health hazard.

Ingestion: May be harmful by ingestion.

Skin: Contact causes irritation.

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 #: VO5075000 [Sodium salicylate]

**Section 12 Ecological information**

**Toxicity to fish:** LC50 - Pimephales promelas (fathead minnow) - 1,370 mg/l - 96 h [Sodium salicylate]

**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

**2016 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   |
|-------------------|--------|-------------|------------|--------|------------|--|
| Sodium salicylate | Listed | Not listed  | Not listed | Listed | Not listed | 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.

## Section 1 Identification

Page E1 of E2

**Innovating Science®** by Aldon Corporation 221 Rochester Street  
"cutting edge science for the classroom" 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.

**Product** SIMULATED ANTI-SERUM ANTI-B**Synonyms** Simulated Anti-B Serum / Anti-B Serum

## Section 2 Hazards identification

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

**Signal word:** None required**Pictograms:** No symbol required**Target organs:** None known**GHS Classification:** None required**GHS Label information: Hazard statement:** None required**Precautionary statement:** None required**Supplemental information:**

Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.

**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 | 84.992% | 231-791-2 |
| Sodium sulfate                  | 7757-82-6 | 15.000% | 231-820-9 |
| FD&C Yellow #5 (C.I. No. 19140) | 1934-21-0 | 0.008%  | 217-699-5 |

## 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 BE HARMFUL IF INHALED. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** MAY CAUSE TRANSIENT 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.

**SKIN ABSORPTION:** MAY CAUSE TRANSIENT IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

## 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.

**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)       |
|------------------|----------------|-------------------|-------------------|-------------------|
|                  | Sodium sulfate | 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> Liquid. Clear yellow.                          | <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:** Molten active metals, including aluminum and magnesium, acids.

**Hazardous decomposition products:** Oxides of sulfur.

## Section 11 Toxicological information

**Acute toxicity:** Oral-rat LD50: >10,000 mg/kg

**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.

**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 if swallowed.

Skin: May cause mild irritation.

Eyes: May cause mild 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 #: No data available

## Section 12 Ecological information

**Toxicity to fish:** Gambusia affinis (Fish, fresh water) LC50: 120 mg/l/96 hours [Sodium sulfate]

**Toxicity to daphnia and other aquatic invertebrates:** Daphnia magna (Crustacea) EC50: 630 mg/l/96 hours [Sodium sulfate]

**Toxicity to algae:** Chlorella pyrenoidosa (Algae) EC199: 57,700 mg/l/8 days [Sodium sulfate]

**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      **2016 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   |
|----------------|--------|-------------|------------|--------|------------|--|
| Sodium sulfate | Listed | Not listed  | Not listed | Listed | Not listed | 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.

## Section 1 Identification

Page E1 of E2

**Innovating Science®** by Aldon Corporation  
"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.

**Product** SIMULATED ANTI-SERUM ANTI-RH**Synonyms** Simulated Anti-Rh Serum / Anti-Rh Serum

## Section 2 Hazards identification

**Signal word:** WARNING**Pictograms:** No symbol required**Target organs:** Liver**GHS Classification:**

Eye irritation (Category 2B)

**GHS Label information: Hazard statement:**

H320: Causes eye irritation.

**Precautionary statement:**

P264: Wash hands thoroughly after handling.

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

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

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

**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 | 92.00% | 231-791-2 |
| Sodium salicylate | 54-21-7   | 8.00%  | 200-198-0 |

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

## 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.

**Section 7 Handling and storage**

Page E2 of E2

**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. Light sensitive. Protect from light.

**Section 8 Exposure controls / personal protection**

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

**Section 10 Stability and reactivity**

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

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

**Incompatible materials:** Strong oxidizers, strong acids.

**Hazardous decomposition products:** Carbon oxides, sodium oxides.

**Section 11 Toxicological information**

**Acute toxicity: Acute toxicity estimate:** Oral-rat LD50: 11,625 mg/kg

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

**Serious eye damage/irritation:** Eyes-rabbit - Irritant.

**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: 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: May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion: Harmful if swallowed.

Skin: Prolonged contact may cause irritation and/or defatting of skin.

Eyes: Causes serious eye 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 #:** VO5075000 [Sodium salicylate]

**Section 12 Ecological information**

**Toxicity to fish:** LC50 - Pimephales promelas (fathead minnow) - 1,370 mg/l - 96 h [Sodium salicylate]

**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

**2016 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   |
|-------------------|--------|-------------|------------|--------|------------|--|
| Sodium salicylate | Listed | Not listed  | Not listed | Listed | Not listed | 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.