Material Safety Data Sheet # 1430

IDENTITY (As Used on Label and List)
Simulated Blood

Section I

Manufacturer's Name
Ward's Natural Science Establishment

Emergency Telephone Number
Chemtrec 800-424-9300

Address (Number, Street, City, State, and ZIP Code)
5100 West Henrietta Road
Rochester, NY 14692-9012

Telephone Number for Information
800-962-2660

Date Prepared
August 12, 2004

Signature of Preparer (Optional)

Section II - Hazardous Ingredients/Identity Information

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS #</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
<th>% Optional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inorganic Salts (proprietary information)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0-12%</td>
</tr>
<tr>
<td>Distilled water</td>
<td>7732-18-5</td>
<td></td>
<td></td>
<td></td>
<td>88-99%</td>
</tr>
<tr>
<td>Food coloring mixture FDC #40 and FDC #3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt;0.1%</td>
</tr>
<tr>
<td>inert microcomponents (proprietary information)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt;0.1%</td>
</tr>
</tbody>
</table>

Section III - Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>100C (210F)</td>
</tr>
<tr>
<td>Specific Gravity (H₂O = 1)</td>
<td>1</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg.)</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density (AIR = 1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate n-butyl acetate = 1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Solubility in Water
Completely soluble.

Appearance and Odor
Red color; odorless

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Ward's MSDS Form
Revised: 8/16/2004
Section IV - Fire and Explosion Hazard

Flash Point (Method Used) | Flammable Limits | LEL | UEL
--- | --- | --- | ---
N/A | N/A | N/A | N/A

Extinguishing Media
Use media best suited for surrounding fire

Special Fire Fighting Procedures
No special procedures. See above.

Unusual Fire and Explosive Hazards

N/A

Section V - Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>Unstable</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable</td>
<td>X</td>
<td>Excessive temperature and heat</td>
</tr>
</tbody>
</table>

Incompatibility (Materials to Avoid)

N/A

Hazardous Decomposition or Byproducts
Thermal Decomposition may produce carbon dioxide and/or carbon monoxide

Hazardous Polymerization

<table>
<thead>
<tr>
<th>May Occur</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will Not Occur</td>
<td>X</td>
</tr>
</tbody>
</table>

Section VI - Health Hazard Data

Route(s) of Entry: | Inhalation? | Skin? | Ingestion? |
--- | --- | --- | --- |

Health Hazards (Acute and Chronic)
The full toxicological properties have not been thoroughly tested. This product may be harmful by injection. Eye or skin contact may cause irritation. Mr. Smith (Type A): LD50 Oral rat 264 mg/kg (in concentrated form). Mr Jones (Type B): LD50 oral rat 3000 mg/kg (in concentrated form). Mr. Green (Type AB): LD50 Oral rat 264 mg/kg (in concentrated form). Ms Brown (Type O): N/A.

Carcinogenicity: | NTP? | IARC Monographs? | OSHA Regulated? |
--- | --- | --- | --- |

Signs and Symptoms of Exposure
Irritation of eyes and skin possible with contact.

Medical Conditions Generally Aggravated by Exposure

Emergency and First Aid Procedures
Skin contact: flush with large amounts of water. Eyes: Flush thoroughly with water, including upper and lower lids. If irritation develops or persists, get medical attention. Ingestion: If conscious, give one or two glasses of water; contact physician.
Section VII - Precautions for Safe Handling and Use
Steps to be Taken in Case Material is Released or Spilled
Absorb with vermiculite, paper towels, or other absorbent material. Place in suitable container.

Waste Disposal Method
Discharge, treatment, and disposal may be subject to Federal, State/Provincial and local regulations.

Precautions to be Taken in Handling and Storage
Storage code: Green (General). Store in cool, dry place.

Other Precautions
For educational use only. Not for clinical or diagnostic use. To be used only with direct supervision of a qualified professional specifically trained in laboratory procedures. This is not real Blood. Do not take or use internally. Do not inject. Wash hands thoroughly with soap and water after used. Not for drug, food or household use. Keep out of reach of children.

Section VIII - Control Measures
Respiratory Protection (Specify Type)
Not needed under normal laboratory conditions with adequate ventilation.

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>none needed</td>
<td>None required</td>
</tr>
<tr>
<td>Mechanical</td>
<td>None needed</td>
<td>Other no</td>
</tr>
</tbody>
</table>

Protective Gloves | Eye Protection | Chemical safety goggles
rubber (butyl/nitrile) | |

Other Protective Clothing or Equipment
Lab coat and apron; eyewash station in proximity (within 15 sec. Of work station)

Work/Hygienic Practices
Wear protective equipment. Wash hands thoroughly after use.

FOR ADDITIONAL INFORMATION:
Contact Ward's Safety Manager during business hours at (800) 962-2660.

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