

WARD'S MATERIAL SAFETY DATA SHEET
Natural Science Establishment, Inc.
397 Vansickle Road
St. Catharines, Ontario L2S 3T5
Rochester, NY 14692-9012
716-359-2502

MSDS No. 1431
Effective Date: January 31, 1999

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	Simulated Anti-Serum	Health	0
Chemical Synonyms	N/A	Fire	0
Formula	N/A	Reactivity	0
Unit Size	15ml, 250ml	HAZARD RATING	HMIS*
C.A.S. No.	N/A	LEAST SLIGHT MODERATE HIGH EXTREME	0 1 2 3 4

SECTION II INGREDIENTS OF MIXTURES		TLV Units
Principal Component(s)	%	
Inorganic Salts (Proprietary Information)	6-7%	N/A
Distilled Water	93%	N/A
Food Coloring Mixture FDC Yellow #5	<0.1	N/A
Food Coloring Mixture FDC Blue #1	<0.1	N/A

SECTION III PHYSICAL DATA	
Melting Point (°F)	0°C (32°F)
Boiling Point (°F)	100°C (212°F)
Vapor Pressure (mm Hg)	N/A
Vapor Density (Air=1)	N/A
Solubility in Water	Complete
Appearance & Odor	Blue, yellow, or green, odorless

SECTION IV FIRE AND EXPLOSION HAZARD DATA	
Flash Point (Method Used)	N/A
Extinguisher Media	Use any media suitable for extinguishing supporting fire.

SPECIAL FIREFIGHTING PROCEDURES
Use best for surrounding fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS
N/A

SECTION V HEALTH HAZARD DATA

Threshold Limited Value
Simulated Anti-A Serum: LD50 Oral Rat 1200mg/kg (in concentrated form)
Simulated Anti-B Serum: LD50 Oral Rat 5989mg/kg (in concentrated form)
Simulated Anti-Rh Serum: LD50 Oral Rat 1200mg/kg (in concentrated form)

Effects of Overexposure
Eye contact may cause irritation. Skin contact may cause irritation. This product may be harmful by ingestion. The full toxicological effects have not been thoroughly investigated. Low toxicity. Exercise appropriate procedures to minimize potential hazards.

Emergency and First Aid Procedures
SKIN CONTACT: Wash thoroughly with water for 15 minutes. EYE CONTACT: Flush eyes thoroughly with water, lifting lower and upper eyelids occasionally. If irritation develops or persists, contact physician. INGESTION: If conscious, give one or two glasses of water; contact physician.

SECTION VI REACTIVITY DATA	
Stability	Unstable
Incompatibility (Materials to Avoid)	Excessive temperature or heat.

Hazardous Decomposition Products	Thermal decomposition may produce fumes of carbon dioxide and/or carbon monoxide.
Hazardous Polymerization	Conditions to Avoid
May Occur	Will Not Occur
	X

SECTION VII SPILL OR LEAK PROCEDURES
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
Dispose of in sanitary sewer with copious amounts of water.

SECTION VIII SPECIAL PROTECTION INFORMATION	
Ventilation	Local Exhaust
Protective Gloves	Rubber (butyl/nitrile) Gloves
Other Protective Equipment	Chemical safety glasses, lab coat, apron, eye wash station in close proximity (within 15 sec. of work station).

SECTION IX SPECIAL PRECAUTIONS
Precautions to be Taken in Handling & Storing
Storage Code: Green (General). Store in cool, dry place. Wash thoroughly after handling. Keep container tightly closed when not in use.

Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals.
Revision	No. 1
Date	1/31/99
Approved	

The above information is believed to be correct and represents the best information currently available to us. However, we make no warranty of the merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine suitability of the information for their particular purposes.

WARD'S MATERIAL SAFETY DATA SHEET

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St. Catharines, Ontario L2S 3T5
Rochester, NY 14692-9012
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716-359-2502

MSDS No. 1430
Effective Date: January 31, 1999

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	Simulated Blood	Health	1
Chemical Synonyms	N/A	Fire	0
Formula	Mixture	Reactivity	0
Unit Size	5ml, 60ml, 1L	HMIS*	
C.A.S. No.	Mixture	LEAST	0
		SLIGHT	1
		MODERATE	2
		HIGH	3
		EXTREME	4



CHEMTREC
800-424-9300
Day 716-226-6177

NFPA
HAZARD RATING
LEAST SLIGHT MODERATE HIGH EXTREME

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Inorganic Salts (Proprietary Information)	0-8%	N/A
Inert Microcomponents (Proprietary)	<0.1%	N/A
Food Coloring Mixture: FDC #40 and FDC #3	<0.1%	N/A
Distilled Water CAS 7732-18-5	94.0%	N/A

SECTION III PHYSICAL DATA

Melting Point (°F)	0°C (32°F)	Specific Gravity (H ₂ O = 1)	1 (Water)
Boiling Point (°F)	100°C (212°F)	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	N/A	Evaporation Rate (Butyl Acetate = 1)	<1
Vapor Density (Air=1)	N/A		
Solubility in Water	Complete		
Appearance & Odor	Red color; odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	N/A	Flammable Limits in Air % by Volume	Lower N/A Upper N/A
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Extinguisher Media Use any media suitable for extinguishing supporting fire.

SPECIAL FIREFIGHTING PROCEDURES

Use best for surrounding fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N/A

SECTION V HEALTH HAZARD DATA

Threshold Limited Value

The full toxicological properties of this material have not been thoroughly investigated.

Effects of Overexposure Mr. Smith (Type A): LD50 Oral Rat 264mg/kg (in concentrated form). Mr. Jones (Type B): LD50 Oral Rat 3900mg/kg (in concentrated form). Mr. Green (Type AB): LD50 Oral Rat 264mg/kg (in concentrated form). Ms. Brown (Type O): N/A. Eye contact may cause irritation. Skin contact may cause irritation. This product may be harmful by ingestion. The full toxicological effects have not been investigated.

Emergency and First Aid Procedures

SKIN CONTACT: Flush with large amounts of water. **EYE CONTACT:** Flush eyes thoroughly with water, lifting lower and upper eyelids occasionally. If irritation develops or persists, contact physician. **INGESTION:** If conscious, give one or two glasses of water, contact physician.

SECTION VI REACTIVITY DATA

Stability	Unstable	Stable	Conditions to Avoid
		X	Excessive temperature and heat
Incompatibility (Materials to Avoid)		N/A	
Hazardous Decomposition Products			Thermal decomposition may produce carbon dioxide and/or carbon monoxide.
Hazardous Polymerization			Conditions to Avoid
May Occur	Will Not Occur	N/A	
	X		

SECTION VII SPILL OR LEAK PROCEDURES

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

Dispose of in sanitary sewer with large amounts of water.

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection None should be required in normal laboratory use.

Ventilation	Local Exhaust	None Needed	Special	No
	Mechanical (General)	None Needed	Other	No
Protective Gloves	Rubber (butyl/nitrile) Gloves		Eye Protection	Chemical Safety Goggles
Other Protective Equipment	Lab coat, apron, eye wash station in close proximity (within 15 sec. of work station).			

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Storage Code: Green (General). Store in cool, dry place.

Keep container tightly closed when not in use.

Read label on container before using. Do not wear contact lenses when working with chemicals.

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 ingest. Wash hands thoroughly with soap and water after use. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision	No. 1	Date	1/31/99	Approved	Chemical Safety Coordinator
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