

Material Safety Data Sheet

Issuing Date 21-Apr-2011

Revision Date 11-July-11

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Simulated Anti-serum (Anti-A, Anti-B, Anti-RH)
Recommended Use Part of an educational kit for Artificial Blood Studies

Supplier Address

VWR Education, LLC
5100 West Henrietta Road
PO Box 92912
Rochester NY 14692-9012
TEL: 585-359-2502

Emergency Telephone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

CAUTION!

Emergency Overview

May cause skin, eye, and respiratory tract irritation
May be harmful if swallowed

Appearance Blue, yellow or green

Physical State Liquid.

Odor Odorless

Potential Health Effects

Acute Toxicity

Eyes May cause irritation.
Skin May cause irritation.
Inhalation May cause irritation of respiratory tract.
Ingestion May be harmful if swallowed.

Chronic Effects No known effect.

Aggravated Medical Conditions None known.

Environmental Hazard See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Inorganic salt 1 (Anti A, Anti RH)	Proprietary	10-30
Inorganic salt 2 (Anti B)	Proprietary	10-30

Proprietary: HMIRC RN 8278 : Filing Date July 13, 2011

4. FIRST AID MEASURES

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin Contact Wash skin with soap and water. Get medical attention if irritation develops and persists.
Inhalation Move to fresh air. If symptoms persist, call a physician.
Ingestion Clean mouth with water and afterwards drink plenty of water. If symptoms persist, call a physician.
Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Not flammable.			
Flash Point	Not determined.			
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.			
<u>Explosion Data</u>				
Sensitivity to Mechanical Impact	None			
Sensitivity to Static Discharge	None			
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.			
<u>NFPA</u>	Health Hazard 0	Flammability 0	Instability 0	Physical and Chemical Hazards -
<u>HMIS</u>	Health Hazard 0	Flammability 0	Physical Hazard 0	Personal Protection -

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Ensure adequate ventilation.
Environmental Precautions	Refer to protective measures listed in Sections 7 and 8.
Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Cleaning Up	Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling	<p>WARNING. This set contains chemicals that may be harmful if misused. Read the information in the instruction manual. If splashed in eyes, or on skin flush thoroughly with water. Get medical attention immediately if splashed in eyes. Not to be used by children except under adult supervision. Not recommended for children under 12 years of age.</p> <p>For educational use only. Do not use for medical-clinical purposes. To be used only with direct supervision of a qualified professional specifically trained in laboratory procedures. Do not take internally. Do not inject. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Not for drug, food or household use.</p>
Storage	Keep containers tightly closed in a cool, well-ventilated place. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Engineering Measures	Showers. Eyewash stations.
<u>Personal Protective Equipment</u>	
Eye/Face Protection	Goggles.
Skin and Body Protection	Protective gloves. Lab coat and/or apron.
Respiratory Protection	No protective equipment is needed under normal use conditions.
Hygiene Measures	When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Blue, yellow or green.	Odor	Odorless.
Odor Threshold	No information available	Physical State	Liquid
pH	No information available.	Autoignition Temperature	No information available.
Flash Point	No information available.	Boiling Point/Boiling Range	>100°C / >212°F
Decomposition Temperature	No information available.	Explosion Limits	No information available.
Melting Point/Range	No information available	Water Solubility	Completely soluble
Flammability Limits in Air	No information available.	Evaporation Rate	No information available
Specific Gravity	1	Vapor Density	No data available
Solubility	No information available.		
Vapor Pressure	No data available		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Incompatible Products	Acids. Bases. Aluminum. Magnesium
Conditions to Avoid	None known based on information supplied.
Hazardous Decomposition Products	Carbon oxides. Sodium oxides.
Hazardous Polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information No acute toxicity information is available for this product.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Inorganic salt 1 (Anti-A, Anti RH)	= 930 mg/kg (Rat)		

Chronic Toxicity

Chronic Toxicity	No known effect.
Carcinogenicity	Contains no ingredient listed as a carcinogen.
Target Organ Effects	None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Inorganic salt 1 (Anti A, Anti-RH)		LC50 96 h: 13500 - 14500 mg/L (Pimephales promelas) LC50 96 h: 3040 - 4380 mg/L static (Lepomis macrochirus) LC50 96 h: = 13500 mg/L (Lepomis macrochirus) LC50 96 h: > 6800 mg/L static (Pimephales promelas)		EC50 48 h: = 2564 mg/L (Daphnia magna) EC50 96 h: = 630 mg/L (Daphnia magna)
Inorganic salt 2 (Anti B)		LC50 96 h: 1270-1470 mg/L flow-through (Pimephales promelas)		

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods	This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.
Contaminated Packaging	Do not re-use empty containers.

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>IDG</u>	Not regulated
<u>MEX</u>	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Inorganic salt 2 (Anti-B)		X	X		

International Regulations**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

D2A Very toxic materials

**16. OTHER INFORMATION**

Prepared By	Product Stewardship 23 British American Blvd. Latham, NY 12110 1-800-572-6501
Issuing Date	21-Apr-2011
Revision Date	8-May-2012
Revision Note	Section 11 table names

General Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet