



SAFETY DATA SHEET

Section 1 Product and Company Identification

Chemical Product or Sample Name: TrueClot™ Blood Simulant Clotting Solution
CAS Number: Mixture
Synonyms: None
Recommended Use(s): Medical training; research and development
Company Information: Luna Innovations Incorporated
706 Forest Street, suite A
Charlottesville, VA 22903
e-mail: dayb@lunainnovations.com
Web: www.lunainnovations.com
Telephone: (434) 220-9444 (M-W; 8:00 a.m. – 5:00 p.m. EDT)
Fax: (434) 972-9956

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SCHOOLCRAFT COLLEGE
PURCHASING DEPT.Section 2 Hazards Identification**EMERGENCY OVERVIEW**Hazardous Materials Identification System (HMIS III)

Physical state: Liquid
Color: clear
Odor: None

HEALTH: 0

FLAMMABILITY: 0

PHYSICAL HAZARDS: 0

Personal Protective Equipment: See SDS Section 8.

Health Hazard
Signal Words /
Route of Entry:

POSSIBLE SKIN AND EYE IRRITANT

Other Hazards /
Comments:

NONE

OSHA /HCS Status: This material is not considered to be hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

POTENTIAL HEALTH EFFECTS

Potential routes of entry: Eyes, skin lesion.
Inhalation: N/A
Skin Contact: May cause skin irritation
Eye Contact: May cause eye irritation
Ingestion: Avoid ingestion, unknown effects.
Existing conditions: N/A

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aggravated by exposure:

See Section 11 for additional toxicological information

POTENTIAL ENVIRONMENTAL EFFECTS

Unknown

Section 3 Composition and Information on Ingredients

Nanomaterial or contains nanomaterials (engineered) with at least one dimension of <100 nm)? No

Component(s)	CAS #	Vol %
Water	7732-18-5	85-99%%
Proprietary Additive	N/A	1-15%

Section 4 First Aid Measures

Eye Contact: Rinse with water for 15 minutes, seek medical attention if irritation persists.
Skin Contact: Rinse with soap and water, seek medical attention if irritation persists.
Inhalation: N/A
Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Seek medical attention if symptoms appear.
Notes to physician: N/A

Section 5 Fire Fighting Measures

See Section 9 for flammable properties.

Special Fire Fighting Procedures: None
Extinguishing media: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam.
Protective Equipment: None
Unusual Fire or Explosion Hazards: None
Hazardous combustion products: Unknown

Section 6 Accidental Release Measures

Isolate the spill and deny entry to unnecessary and unprotected personnel.

Personal Protection: Wear PPE per Section 8.
Spill Procedures: Isolate spill and contain with absorbent materials.
Environmental Precautions and Cleanup Methods: Do not put down drain and see Section 13. Dispose of in accordance with federal and state waste regulations

Section 7 Handling and Storage

Precautions: None
Storage: None

Section 8 Exposure Controls and Personal Protection

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Engineering Controls/ None
Ventilation
Eye Protection: Wear ANSI approved safety goggles/glasses if there is a risk of splashing.
Respiratory Protection: None
Skin Protection: Wear nitrile or latex gloves if user has sensitive skin or is prone to skin irritation.

Section 9 Physical and Chemical Properties

Appearance (color, physical form, shape): Clear Liquid
Odor Characteristics: Unknown
Odor Threshold: Unknown
pH: 4.5 – 5 (estimated)
Flash Point: Unknown
Flammability (solid, gas): Unknown
Initial Boiling Point and Boiling Range: 100 °C (estimated)
Evaporation Rate: Unknown
Melting/Freezing Point: Unknown
Upper/Lower Flammability or Explosive Limits: Unknown
Vapor Pressure: Unknown
Vapor Density: Unknown
Specific Gravity or Relative Density: Unknown
Solubility (specify solvent): Soluble in water
Auto-ignition Temperature: Unknown
Decomposition Temperature: Unknown
% Volatile: Unknown
Partition Coefficient: Unknown
Viscosity: Variable depending on formulation

Section 10 Stability and Reactivity

Stability: N/A
Hazardous polymerization: N/A
Hazardous Decomposition N/A
Products:
Incompatibilities: N/A
Conditions to avoid: N/A

Section 11 Toxicological Information**Carcinogenicity**

Carcinogenic listed by 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.
Carcinogenic by NTP: 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 NTP
Carcinogenic by OSHA: 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 OSHA



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Acute or Chronic Toxicity

Acute Effects: Administration of mixture (composed of similar but not identical components) produced very slight to well-defined erythema and very slight edema by the 1 hour scoring interval on when tested on intact and abraded skin of New Zealand white rabbits. Complete resolution of irritation occurred by the Day 7 scoring interval. Additional dermal observations included red staining of the test sites; however, the staining did not affect the ability to score the test sites. Mixture was score as a slight irritant by contract research laboratory.

Chronic Effects: Information not available

Section 12 Environmental Information

Ecotoxicological Information: Unknown
Chemical Fate Information: Unknown

Section 13 Disposal Considerations

Recover or recycle if possible.

Do not discard into any sewers, on the ground, or into any body of water.

Upon completion of tests, dispose of material safely and in accordance with local, state, and federal regulations. It is the responsibility of the waste generator to determine the proper waste identification and disposal methods.

Section 14 Transportation Information

DOT:

Proper Shipping Name: NOT REGULATED

Hazard Class:

Packing Group:

UN Number:

IATA:

Proper Shipping Name: NOT REGULATED

Hazard Class:

Packing Group:

UN Number:

Section 15 Regulatory Information

TSCA Inventory Status: Mixture is for **research and development use only**.
All Components of this product are TSCA listed.

Section 16 Other Information

Research Notice: The information provided herein is for a research sample and represents the results of preliminary investigations. This research sample is for use by qualified research personnel only. It is offered in good faith, consistent with 29 CFR 1910.1200, recognizing that additional information, including data on hazardous properties, may be developed at a later time.

**SAFETY DATA SHEET****Section 8 Exposure Controls and Personal Protection**

Engineering Controls/ Ventilation: None

Eye Protection: Wear ANSI approved safety goggles/glasses if there is a risk of splashing.

Respiratory Protection: None

Skin Protection: Wear nitrile or latex gloves if user has sensitive skin or is prone to skin irritation.

Section 9 Physical and Chemical Properties

Appearance (color, physical form, shape): Red Liquid

Odor Characteristics: Unknown

Odor Threshold: Unknown

pH: 7 (estimated)

Flash Point: Unknown

Flammability (solid, gas): Unknown

Initial Boiling Point and Boiling Range: >100°C (estimated)

Evaporation Rate: Unknown

Melting/Freezing Point: Unknown

Upper/Lower Flammability or Explosive Limits: Unknown

Vapor Pressure: Unknown

Vapor Density: Unknown

Specific Gravity or Relative Density: Unknown

Solubility (specify solvent): Soluble in water

Auto-ignition Temperature: Unknown

Decomposition Temperature: Unknown

% Volatile: Unknown

Partition Coefficient: Unknown

Viscosity: Variable depending on formulation

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Stability: N/A

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Products:

Incompatibilities: N/A

Conditions to avoid: N/A



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Carcinogenic by OSHA: 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 OSHA

Acute Toxicity

Acute Effects: Information not available

Section 12 Environmental Information

Ecotoxicological Information: Unknown

Chemical Fate Information: Unknown

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Additional labeling (if required):

Section 15 Regulatory Information

TSCA Inventory Status: Mixture is for **research and development use only**.
All components TSCA listed or exempt



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