

MATERIAL SAFETY DATA SHEET

Revision 1
03/21/2019

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product Identifiers

Product Name : Dengue IgG ELISA
Catalog No : MBS580100

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses : For research use only, not for diagnostic use. For In Vitro use only.
Restrictions : Not for human or animal consumption.

1.3. Details of the supplier of the safety data sheet

Company/Supplier : MyBioSource, Inc.
P.O.Box 153308
San Diego, CA 92195-3308
USA
Tel: 1.858.633.0165/Fax: 1.858.633.0166
Email: sale@mybiosource.com

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA Hazard Communication Standard), Appendices A (Health Hazard Criteria) and B (Physical Hazard Criteria). This product is a test kit that consists of two separate solutions that, which have the following classifications under the standard:

- **Sodium Azide Solution:** Not classified as hazardous.
- **Stop Solution:** Eye irritation (Category 2A); Skin irritation (Category 2)

2.2. GHS Label elements, including precautionary statement

- **Sodium Azide Solution**
Pictogram: Not applicable.
Signal Word: Not applicable.
Hazard Statement(s): Not applicable.
Precautionary statement(s): Not applicable.

- **Stop Solution.**
Pictogram: To the right.
Signal Word: Warning.
Hazard Statement(s)



H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statement(s):

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

2.3. Hazards not otherwise classified.

Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Mixtures

Product	Ingredient	Concentration	CAS #	EC-No.
Sodium Azide Solution	Sodium Azide	0.05%	26628-22-8	247-852-1
Stop Solution	Sulfuric Acid	0.028%	7664-93-9	231-639-5

NOTE: Unless otherwise specified, the information in the remainder of this document is applicable to both product components.

4. FIRST AID MEASURES

4.1. Descriptions of first aid measures

General Advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If irritation or other health effects arise or continue after first aid treatment, seek medical attention.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If irritation or other health effects arise or continue after first aid treatment, seek medical attention. Wash contaminated clothing before reuse.

In case of eye contact

Rinse thoroughly with water for at least 15 minutes and consult a physician. If irritation or other symptoms arise or persist after first aid treatment, seek medical attention.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed.

The most important known symptoms and effects are described in the labeling (section 2.2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Treat symptomatically.

5. FIREFIGHTING MEASURES

5.1. Suitable extinguishing media

Fire-fighting media should be selected depending on the surrounding materials and equipment.

5.2. Specific hazards arising from product

The components of this product are non-combustible. Ambient fire may liberate hazardous gases (e.g., oxides of carbon and sulfur).

5.3. Specific protective equipment and precautions for fire-fighters.

It is recommended that fire-fighters wear protective gear and self-contained breathing apparatus to limit their exposure. Rinse all equipment thoroughly before returning to service.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures.

Use personal protective equipment (nitrile gloves, safety glasses with side shield, lab coat). Avoid breathing vapors, mist or spray. Ensure adequate ventilation. Clear the area immediately surrounding the spill.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3. Methods and materials for containment and cleaning up.

Soak up with absorbent material (e.g., polypads). Wipe-down the area with a damp sponge or polypad to remove all residue. Keep spill debris generated in suitable, closed containers for disposal according to local regulations.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

This kit should be handled and used by a qualified, trained profession, general good laboratory practice should be maintained. Do not smoke, drink, or apply cosmetics in chemical use areas. Handle calibrators and unknown samples as potentially infectious.

7.2. Conditions for safe storage

This kit should be stored as recommended on the product label. Refer to the storage section of the package insert for further information. Store away from any incompatible material (see Section 10).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure limits

The following airborne occupational exposure limits have been established for the components of this product.

Sodium Azide Solution

SODIUM AZIDE

ACGIH TLV: C = 0.29 mg/m³ (thoracic traction).

NIOSH REL: C = 0.3 mg/m³; IDLH = 15 mg/m³

Stop Solution

SULFURIC ACID

ACGIH TLV: TWA = 0.2 mg/m³ (thoracic traction).

OSHA PEL: TWA = 1 mg/m³

NIOSH REL: TWA = 1 mg/m³; IDLH = 15 mg/m³

8.2 Engineering controls

Use with adequate ventilation. Ensure that eyewash stations and safety showers are close to the workstation location.

8.3 Individual protection measures

Wear protective clothing and appropriate footwear as protection against splashing or contamination. Also wear approved safety goggles and protective gloves. After finishing the work or before going on break, wash hands thoroughly.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Sodium Azide Solution

Physical characteristics

Description: Colorless liquid

Odor: Not detectable.

Odor threshold: Not applicable

Chemical properties

pH: 6-8

Boiling point: Approximately 100°C at 760mmHg.

Melting point: Less than 0°C (32°F)

Flash point: Not applicable.

Evaporation rate (water = 1): Approximately 1.0

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits: Not applicable.

Vapor pressure: Not applicable.

Vapor density: Not applicable.

Relative density: Not applicable.

Partition coefficient n-octanol/water: Not applicable.

Auto-ignition temperature: Not applicable.

Decomposition temperature: Not applicable.

Viscosity, kinematic: Not applicable.

Explosive properties: Not applicable.

Oxidizing properties: Not applicable.

Solubility in water: Soluble

% Volatile Organic Content: Not applicable.

Stop Solution

Physical characteristics

Description: Colorless liquid

Odor: Not detectable.

Odor threshold: Not applicable.

Chemical properties

pH: 2.2

Boiling point: Approximately 100°C at 760mmHg.

Melting point: Less than 0°C (32°F)

Flash point: Not applicable.

Evaporation rate (water = 1): Approximately 1.0

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits: Not applicable.

Vapor pressure: Not applicable.

Vapor density: Not applicable.

Relative density: Not applicable.

Partition coefficient n-octanol/water: Not applicable.

Auto-ignition temperature: Not applicable.

Decomposition temperature: Not applicable.

Viscosity, kinematic: Not applicable.

Explosive properties: Not applicable.

Oxidizing properties: Not applicable.

Solubility in water: Soluble

% Volatile Organic Content: Not applicable.

9.2. Other Safety information

No data available

10. STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Conditions to avoid

Exposure to extreme temperatures and incompatible materials.

10.4. Materials to avoid

Use only clean glass and plastic suitable for laboratory use when handling the kit components. The components of this kit are Individual solutions that are not compatible with the following chemicals:

- **Sodium Azide Solution:** Water-reactive compounds.
- **Stop Solution:** Strong oxidizing agents, metals and strong bases.

10.5. Hazardous decomposition products

Under the conditions of a fire, the components of this kit will thermally decompose and release the following products: Individual ingredients are not compatible with the following chemicals:

- **Sodium Azide Solution:** Water vapor and oxides of sodium and nitrogen.
- **Stop Solution:** Water vapor and oxides of sulfur.

11. TOXICOLOGICAL INFORMATION

11.1. Information on likely routes of exposure

Occupational exposures to the components of this product are most apt to occur via skin and eye contact. The components of product could be inhaled via splashes, sprays and mists. Ingestion of the components of this product are unlikely, except under unusual circumstances or procedures involving poor chemical hygiene (e.g., eating in product use areas).

11.2. Symptoms related to physical, chemical, and toxicological characteristics

The following symptoms may arise after exposures occur:

Sodium Azide Solution

Inhalation: May cause respiratory tract irritation.

Ingestion: May be harmful if swallowed.

Skin: May cause skin irritation.

Eyes: May cause eye irritation

Stop Solution

Inhalation: May respiratory tract irritation.

Ingestion: May be harmful if swallowed and cause serious irritation of the tissues of the digestive tract.

Skin: Causes skin irritation, which can result in redness, itching, and pain.

Eyes: Causes serious eye irritation, which can result in redness, tearing, and pain.

11.3. Delayed and immediate effects

No other delayed or immediate effects, as defined by 29 CFR 1910 (OSHA Hazard Communication Standard), Appendix A (Health Hazard Criteria), are associated with the solutions comprising this product.

11.4. Numerical measures of toxicity

Acute Toxicity Estimate: The following values have been calculated for the components of this kit:

Sodium Azide Solution

ATE (oral) > 5000 mg/kg

ATE (dermal) > 5000 mg/kg

ATE (inhalation) > 30 mg/L

Stop Solution

ATE (oral) > 5000 mg/kg

ATE (dermal) > 5000 mg/kg

ATE (inhalation) > 30 mg/L

Component Toxicity Values: The following data are available for the chemicals in the kit's solutions.

Sodium Azide Solution

SODIUM AZIDE

LD50 (oral, rat) = 27 mg/kg

LDC50 (inhalation, rat) = 37 mg/m³/2 hours

LD50 (dermal, rabbit) = 20 mg/kg

LDLo (oral, man) = 29-143 mg/kg

Stop Solution

SULFURIC ACID

LD50 (oral, rat) = 2140 mg/kg

LDC50 (inhalation, rat) = 510 mg/m³/2 hours

TCLo (inhalation, human) = 1 mgm³/3 hours (thorax, lungs, respiration (other changes)

TCLo (inhalation, human) = 3 mgm³/24 weeks (changes in teeth and supporting structures)

LDLo (unreported, man) = 135 mg/kg

11.5. Listing as a carcinogen

No component of this product (based on its form and its intended nature of use), or present greater than 0.1% is identified as probable, possible or confirmed human carcinogen by the International Agency for Research on Carcinogens (IARC), the National Toxicology Program (NTP) or OSHA.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity

This product is not classified as an Aquatic Toxicity hazard (per United Nations Globally Harmonized System of Classification and Labelling of Chemicals). The following aquatic toxicity data is available for the components of this product:

Sodium Azide Solution

SODIUM AZIDE

LC50 - Pimephales promelas (fathead minnow) - 5.46 mg/l - 96 hours

EC50 - Pseudokirchneriella subcapitata - 0.35 mg/l - 96 hours

Stop Solution

SULFURIC ACID

LC50 - 96 hours: 16 - 28 mg/L - *Lepomis macrochirus* (Bluegill sunfish), static test

EC50 - 48 hours: > 100 mg/L - *Daphnia magna* (Water flea), static test

NOEC: 0.13 mg/L - Algae

NOEC: 0.13 mg/L - 10 Months - *Salvelinus fontinalis* (brown trout) flow-through test

12.2. Persistence and degradability

Persistence is unlikely, based on the available data.

12.3. Bioaccumulative potential

Based on the available data, the components of this product are not anticipated to bioaccumulate.

12.4. Mobility in soil

Based on the available data, the components of this product are expected to have some mobility in soil.

12.5. Other adverse effects

This product does not contain components that are known to cause ozone depletion, cause endocrine disruption, or contribute to global warming.

13. DISPOSAL CONSIDERATIONS

Dispose of each component according to federal, state and local environment control regulations. Contaminated packaging should be handled with care, and also discarded according to appropriate regulations.

14. TRANSPORT INFORMATION

The components of this product are not regulated as hazardous material by the Department of Transportation, International Air Transport Association, or International Maritime Organization.

14.1. Basic description information

Sodium Azide Solution

UN Number: Not applicable.

Class: Not applicable.

Packing Group: Not applicable.

Proper Shipping Name: Not applicable.

Stop Solution

UN Number: Not applicable.

Class: Not applicable.

Packing Group: Not applicable.

Proper Shipping Name: Not applicable

14.2. Environmental Hazards

.Not applicable.

14.3. Special precautions for users

Not applicable.

14.4. Special precautions for users

Not applicable.

15. REGULATORY INFORMATION

No kit component contains a hazardous ingredient in an amount that requires identification and labeling.

16. OTHER INFORMATION

16.1. Statement from company

The above information is believed to be correct but does not purport to be an all-inclusive document. MyBioSource, Inc. shall not be liable or responsible in any way for use of either this information or the material supplied. Final determination of suitability and safe use of these materials is the sole responsibility of the user. Disposal of hazardous materials may be subject to federal, state or local laws or regulations.

16.2. Definitions

ACGIH: American Conference of Government Industrial Hygienists

ATE: Acute Toxicity Estimated, calculated based on available data

CAS #: Chemical Abstract Service Number, used by the American Chemical Society to uniquely identify a chemical.

EC50: The Effect Concentration of a substance which will be fatal to 50% of exposed test aquatic species

IARC: International Agency for Research on Cancer

LD50 or LC50: The Lethal Dose or Lethal Concentration of a substance which will be fatal to 50% of exposed test animals by the designated route of administration

LDLo: Lethal Dose-Low, lowest level at which death occurs

mg/m³: Milligrams per cubic meter

NOEC: No observable effect concentration

NIOSH: National Institute of Occupational Safety and Health

NTP: National Toxicology Program

OSHA: U.S. Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

ppm: Parts per Million

TCLo: The lowest concentration of exposure to create an adverse health effect

TWA: Time-Weighted Average (over an 8-hour work day)