# SAFETY DATA SHEET

Version 7.0
Revision Date June 14, 2021

## 1. IDENTIFICATION

### Product Identification

| | |
|---|---|
| Product Name | Mouse Granzyme B ELISA Kit |
| Catalog Number | ELM-GranzymeB |

### Kit Components

| Component | Size / Description |
|---|---|
| Granzyme B Microplate (Item A) | 96 wells (12 strips x 8 wells) coated with anti-Mouse Granzyme B. |
| Wash Buffer Concentrate (20X) (Item B) | 25 ml of 20X concentrated solution. |
| Standard Protein (Item C) | 2 vials of Mouse Granzyme B. 1 vial is enough to run each standard in duplicate. |
| Detection Antibody Granzyme B (Item F) | 2 vials of biotinylated anti-Mouse Granzyme B. Each vial is enough to assay half the microplate. |
| HRP-Streptavidin Concentrate (Item G) | 200 µl 300X concentrated HRP-conjugated streptavidin. |
| TMB One-Step Substrate Reagent (Item H) | 12 ml of 3,3,5,5'-tetramethylbenzidine (TMB) in buffer solution. |
| Stop Solution (Item I) | 8 ml of 0.2 M sulfuric acid. |
| Assay Diluent A (Item D) | 30 ml of diluent buffer, 0.09% sodium azide as preservative. |
| Assay Diluent B (Item E) | 15 ml of 5x concentrated buffer. |

### Usage

This product is furnished for LABORATORY RESEARCH USE ONLY. Not for diagnostic or therapeutic use.

### Supplier Identification

| | |
|---|---|
| Company | RayBiotech, Inc.<br>3607 Parkway Lane, Suite 200<br>Peachtree Corners, GA 30092, USA |
| Telephone | 1-888-494-8555 (Toll Free); 770-729-2992 |
| Fax | 770-206-2393 |
| Website | www.RayBiotech.com |
| Email | info@raybiotech.com |

### Emergency Telephone Number

| | |
|---|---|
| Emergency Phone # | 1-888-494-8555 |

## 2. HAZARDS IDENTIFICATION

### Hazardous Ingredients

1. Stop Solution contains Sulfuric Acid
2. Assay Diluent A contains Sodium Azide

### OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Classification of the substance or mixture

Sulfuric Acid (Stop Solution): Causes skin irritation (H315); Causes serious eye irritation (H319)
Sodium Azide (Assay Diluent A): Short-term (acute) aquatic hazard (Category 3), H402; Long-term (chronic) aquatic hazard (Category 3), H412

### GHS Label Elements

| | |
|---|---|
| Hazard Pictograms | |
| Signal Word | Warning |
| Hazard Statements | Sulfuric Acid (Stop Solution): Causes skin irritation (H315); Causes serious eye irritation (H319)<br>Sodium Azide (Assay Diluent A): Harmful to aquatic life with long lasting effects (H412) |
| Prevention | Wear protective gloves, protective clothing, eye protection, face protection. Wash exposed skin thoroughly after handling. |
| Response | IF SWALLOWED: rinse mouth. Do NOT induce vomiting.<br>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.<br>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Storage | Not applicable. |
| Disposal | Dispose of contents/container to comply with local, state and federal regulations. |

### Hazards not otherwise classified

None known.

---

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| | |
|---|---|
| Substance/Mixture | Item A is substance. All other items are mixture. |
| Other means of identification | Not available |

### CAS Numbers/other identifiers

| Ingredient Name | % | CAS Number |
|---|---|---|
| Sulfuric Acid | 1-3 | 7664-93-9 |
| Sodium Azide | <0.1 | 26628-22-8 |

Any percentage shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

---

## 4. FIRST-AID MEASURES

### Description of Necessary First Aid Measures

| | |
|---|---|
| Eye Contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. |
| Skin Contact | Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor. |
| Inhalation | Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. |
| Ingestion | Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. |

### Potential Acute Health Effects

| | |
|---|---|
| Eye Contact | Sulfuric Acid (Stop Solution): Causes serious eye damage (H319) |
| Skin Contact | Sulfuric Acid (Stop Solution): Causes skin irritation (H315) |
| Inhalation | No known significant effects or critical hazards. |
| Ingestion | No known significant effects or critical hazards |

### Over-Exposure Signs/Symptoms

No specific data.

### Notes to Physician

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

### Specific Treatments

No specific treatment

### Protection of First-Aiders

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

## 5. FIRE FIGHTING MEASURES

| | |
|---|---|
| Extinguishing Media | Use an extiguishing agent suitable for the surrounding fire, such as water spray, carbon dioxide, dry chemical power or appropriate foam. Prevent contact with skin and eyes. |
| Chemical Hazards from Fire | In a fire or if heated, a pressure increase will occur and the component containers may burst. |

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures**

| | |
|---|---|
| For Non-Emergency Personnel | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For Emergency Responders | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For Non-Emergency Personnel" above. |
| Environmental Precautions | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| Protective Equipment | Wear respirator, chemical safety goggles, rubber boots and rubber gloves. |

**Methods and Materials for Containment and Cleaning Up**

| | |
|---|---|
| Small Spill | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| Large Spill | Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |

## 7. STORAGE AND HANDLING

**Storage**

May be stored for up to 6 months at 2° to 8°C from the date of shipment. Opened Microplate Wells or reagentsmay be store for up to 1 month at 2° to 8°C. Return unused wells to the pouch containing desiccant pack, reseal along entire edge. Reconstituted standard can be stored at -80°C for up to 1 week. Note: the kit can be used within one year if the whole kit is stored at -20°C. Avoid repeated freeze-thaw cycles.

### Handling

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Keep away from incompatible materials (see Section 10) and food and drink.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Permissible Exposure Limits (PELs)

| Substance | CAS No. | Regulatory Limits | | Recommended Limits | |
|---|---|---|---|---|---|
| | | OSHA PEL | Cal/OSHA PEL | NIOSH REL | ACGIH |
| | | mg/m3 | 8-hour TWA<br>(ST) STEL<br>(C) Ceiling | Up to 10-hour TWA<br>(ST) STEL<br>(C) Ceiling | 8-hour TWA<br>(ST) STEL<br>(C) Ceiling |
| Sulfuric acid | 7664-93-9 | 1 | 0.1 mg/m3<br>(ST) 3 mg/m3 | 1 mg/m3 | 0.2 mg/m3<br>(Thor.) |
| Sodium Azide | 26628-22-8 | - | - | 0.3 mg/m3<br>(C; Skin) | 0.29 mg/m3<br>(C) |

### Appropriate Engineering Controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineeringcontrols to keep worker exposure to airborne contaminants below any recommended or statutory limits.

### Protective Equipment

Wear suitable protective clothing, including gloves, safety glasses, dust mask, and a laboratory coat.

### Special Precautions

Not for human or drug use. Not for household use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Appearance | Clear, colorless |
| Odor | Odorless |
| Physical State | Liquid |
| pH | N/A |
| Boiling Point | N/A |
| Melting Point | N/A |
| Freezing Point | N/A |
| Vapor Pressure | N/A |
| Vapor Density | N/A |
| Specific Gravity | N/A |
| Evaporation Rate | N/A |
| Solubility in Water | N/A |
| Odor Threshold | N/A |
| Coefficient of Water/Oil Distribution | N/A |

## 10. STABILITY AND REACTIVITY

| | |
|---|---|
| Chemical Stability | Stable under normal handling procedures. |
| Hazardous Reactions | Under normal conditions of storage and use, hazardous reactions will not occur. |

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

| Ingredient Name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Sulfuric Acid | LC50 Inhalation Gas<br>LD50 Oral | Rat<br>Rat | 347 ppm<br>2140 mg/kg | 1 hour<br>- |
| Sodium Azide | LC50 Inhalation<br>LD50 Oral<br>LD50 Dermal | Rat<br>Rabbit<br>Rabbit | 37 mg/m3<br>10 mg/kg<br>20 mg/kg | - |

**Irritation/Corrosion**

| Ingredient Name | Result | Species | Exposure | Observation |
|---|---|---|---|---|
| Sulfuric Acid | Eyes - Severe irritant<br>Eyes - Severe irritant | Rabbit<br>Rabbit | 250 Micrograms<br>0.5 minutes 5 milligrams | -<br>- |
| Sodium Azide | No data available | - | - | - |

**Sensitization** Not Available

**Mutagenicity** Not available

**Classification**

| Ingredient Name | OSHA | IARC | NTP |
|---|---|---|---|
| Sulfuric Acid | + | 1 | Known to be a human carcinogen. |
| Sodium Azide | + | 1 | Not classifiable as a human carcinogen. It is unknown whether chronic or repeated exposure to sodium azide increases the risk of reproductive toxicity or developmental toxicity. |

**Reproductive Toxicity** Not Available

**Specific target organ toxicity (single exposure)** Not available

**Specific target organ toxicity (repeated exposure)** Not available

**Aspiration hazard** Not available

**Likely routes of exposure** Routes of entry anticipated: Oral, Dermal, Inhalation.

**Potential acute health effects**

**Eye contact** Sulfuric Acid (stop solution): Risk of serious damage to eyes.

**Inhalation** No known significant effects or critical hazards.

**Ingestion** No known significant effects or critical hazards

**Skin Contact** Sulfuric Acid (stop solution): Skin irritant or corrosion.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** No data available

**Persistence and degradability** No data available

**Bioaccumulation/accumulation** No data available

**Mobility in environmental media** No data available

**Other hazardous effects** May be harmful to the environment, particularly aquatic organisms.

## 13. DISPOSAL CONSIDERATIONS

| | |
|---|---|
| **Disposal methods** | Disposal should be in accordance with applicable national, state, and local laws and regulations. Local regulations may be more stringent than national or state requirements. Verify local and state regulations before discharging into public sewers or landfills. Do not dump into any body of water. Contact a licensed professional waste disposal service for appropriate methods of disposal. |

## 14. TRANSPORT INFORMATION

| | |
|---|---|
| **DOT** | Not dangerous goods. |
| **IATA** | Not dangerous goods. |
| **ADR** | Not dangerous goods. |

## 15. REGULATORY INFORMATION

| | |
|---|---|
| **United States (TSCA)** | All ingredients are on the inventory or exempt from listing. |
| **Canada (DSL / NDSL)** | All ingredients are on the inventory or exempt from listing. |
| **Europe** | In accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015.<br>In accordance with Regulation (EC) No 1272/2008 - classification, labelling and packaging of substances and mixtures (CLP) |
| **SARA 302 Components** | Sulfuric Acid (Stop Solution): CAS 7664-93-9<br>Sodium Azide (Assay Diluent A): CAS 26628-22-8 |
| **SARA 313 Components** | Sulfuric Acid (Stop Solution): Concentration <3%<br>Sodium Azide (Assay Diluent A): Concentration <0.1% |
| **SARA 311/312 Hazards** | Sulfuric Acid (Stop Solution): Health hazard - Skin corrosion or Irritation<br>Health hazard - Serious eye damage or eye irritation |
| **California Prop. 65 Components** | Sulfuric Acid (Stop Solution): WARNING: This product contains a chemical known to the State of California to cause cancer.<br>Sodium Azide (Assay Diluent A): This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm. |

## 16. OTHER INFORMATION

| | |
|---|---|
| **Disclaimer** | The above information was obtained from sources available at the time of revision and believed to be accurate and reliable. The information included is not intended to be all inclusive and should only be used as a guide. RayBiotech shall not be held liable for any damage resulting from use, handling, or contact with the above product. |
| **Last Revised** | June 14, 2021 |

This product is for research use only.

2021 RayBiotech, Inc.