SAFETY DATA SHEET

Version 5.0
Revision Date 1/19/2021

1. IDENTIFICATION

Product Identification

Product Name	COVID-19 Human IgG ELISA Kit
Catalog Number	IEQ-CoVS1RBS-IgG-DBS

Usage

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

Supplier Identification

Company	RayBiotech, Inc. 3607 Parkway Lane, Suite 100 Norcross, 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. The Protease Inhibitor Cocktail Set I contains AEBSF, Leupeptin, and Ethylenediaminetetraacetic acid (EDTA).
2. The Stop Solution contains Sulfuric Acid.

OSHA/HCS status

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

Classification of the substance or mixture

AEBSF (protease inhibitor set I): Acute Toxicity

Leupeptin (protease inhibitor set I): Acute Toxicity

Ethylenediaminetetraacetic acid (EDTA) (protease inhibitor set I): Serious eye irritation

Sulfuric Acid (Stop Solution): Skin Corr./Irrit. 1A (H314)

GHS Label Elements

Hazard Pictograms 

Signal Word/s Warning

Hazard Statements	AEBSF (protease inhibitor set I): Harmful if swallowed; Irritating to eyes and skin. Leupeptin (protease inhibitor set I): Harmful if swallowed or inhaled; Irritating to eyes and skin. Ethylenediaminetetraacetic acid (EDTA) (protease inhibitor set I): Harmful if swallowed or inhaled; Irritating to eyes. Sulfuric Acid (Stop Solution): Causes skin irritation (H315); Causes serious eye irritation (H319)
Response	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. SKIN CONTACT: Take off immediately all contaminated clothing. Rinse skin with water/shower. INHALATION: Move to an outside area and breath fresh air. Clear the nose by blowing.
Storage	Not applicable.
Disposal	Not applicable.

Hazards not otherwise classified

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS Numbers/other identifiers

Ingredient Name	%	CAS Number
AEBSF	1-3	30827-99-7
Leupeptin	1-5	103476-89-7
Ethylenediaminetetraacetic acid (EDTA)	0.1-1	60-00-4
Sulfuric Acid	0.2	7664-93-9

4. FIRST-AID MEASURES

Description of Necessary First Aid Measures

Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Skin Contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing and clean shoes before reuse.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it issuspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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)

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 ifwater-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

Store the entire kit frozen at -20°C upon arrival.

Handling

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Permissible Exposure Limits (PELs)

This product does not contain any hazardous materials with occupational exposure limits established by theregion specific regulatory bodies.

Appropriate Engineering Controls

Showers
Eyewash stations
Ventilation systems

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
Ethylenediaminetetraacetic acid (EDTA)	LD50	Oral rat	4,500 mg/kg
Sulfuric Acid	LD50	Oral rat Inhalation rat	347 ppm 2140 mg/kg

Carcinogenicity	Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65
Sensitization	Not Available
Mutagenicity	Not available
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	AEBSF (protease inhibitor set I): Eye irritant. Leupeptin (protease inhibitor set I): Eye irritant. Ethylenediaminetetraacetic acid (EDTA) (protease inhibitor set I): Eye irritant. Sulfuric Acid (stop solution): Risk of serious damage to eyes.

Inhalation	Leupeptin (protease inhibitor set I): Harmful if inhaled. Sulphuric Acid (stop solution): Harmful if inhaled.
Ingestion	AEBSF (protease inhibitor set I): Harmful if swallowed. Leupeptin (protease inhibitor set I): Harmful if swallowed.
Skin Contact	AEBSF (protease inhibitor set I): Skin irritant. Leupeptin (protease inhibitor set I): Skin irritant. 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.
SARA 302 Components	Sulfuric Acid (Stop Solution): CAS 7664-93-9
SARA 313 Components	Sulfuric Acid (Stop Solution): Concentration <3%
SARA 311/312 Hazards	Sulfuric Acid (Stop Solution): Health hazard - Skin corrosion or Irritation 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.

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.
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