

# 1. IDENTIFICATION

Product Identification

| Product identification     |   |
|----------------------------|---|
| Product Name               | Human/Mouse Phospho-Stat 6 (Y641) Cell-Based ELISA          |
| Catalog Number             | CBEL-STAT6  |
| Kit Components<br>Usage    |   |
| -                          | Y RESEARCH USE ONLY. Not for diagnostic or therapeutic use. |
| Supplier Identification    |   |
| Company                    | RayBiotech, Inc.  |
|                            | 3607 Parkway Lane, Suite 100<br>Norcross, GA 30092<br>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 Stop Solution contains Sulfuric Acid.
- 2. The Fixing Solution contains 4% Formaldehyde solution.
- 3. The Quenching Buffer Concentrate contains 30% Hydrogen Peroxide.

#### **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): Skin Corr./Irrit. 1A (H314)

Formaldehyde solution (fixing solution): Acute toxicity (Category 4, Oral, H302), Skin Sensitisation (Category 1, H317), Germ cell mutagenicity (Category 2, H341), Carcinogenicity (Category 1B, H341)

Hydrogen Peroxide (quenching buffer): Acute toxicity, Oral (Category 4, H302), Skin corrosion (Category 1A,H314), Serious eye damage (Category 1, H318), Specific target organ toxicity - single exposure (Category 3, Respiratory system, H335), Short-term (acute) aquatic hazard (Category 2, H401), Long-term (chronic) aquatic hazard (Category 3, H412)

#### **GHS Label Elements**

Hazard Pictograms

Signal Word/s



Warning Danger

r Danger

| Hazard Statements  | eye irritation (H319)<br>Formaldehyde solution<br>swallowed (H302). May<br>causing genetic defects<br>Hydrogen Peroxide (qu<br>Causes severe skin bu | (fixing solution): May o<br>/ cause an allergic skir<br>s (H341).<br>lenching buffer): MHar<br>rns and eye damage (I | tation (H315); Causes serious<br>cause cancer (H350). Harmful if<br>n reaction (H317). Suspected of<br>mful if swallowed (H302).<br>H314). May cause respiratory<br>Harmful to aquatic life with long |
|--|--|--|---|
| Response   | unwell. Rinse mouth.<br>EYE CONTACT: Rinse<br>contact lenses, if prese<br>SKIN CONTACT: Take<br>with water/shower.                                   | e cautiously with water<br>ent and easy to do. Cor<br>e off immediately all cor                                      | or doctor/ physician if you feel<br>for several minutes. Remove<br>ntinue rinsing.<br>ntaminated clothing. Rinse skin<br>reath fresh air. Clear the noseby  |
| Storage  | Not applicable.  |  |   |
| Disposal   | Not applicable.  |  |   |
| Hazards not otherwise classifie                          | ed   |  |   |
| None known.  |  |  |   |
| COMPOSITION/INFORMATION<br>CAS Numbers/other identifiers |  |  |   |
| Ingredient Name  |  | <u>%</u>   | CAS Number  |
| Sulfuric Acid  |  | 0.2  | 7664-93-9   |
| Formaldehyde solution                                    |  | 4  | 50-00-0   |
| Hydrogen Peroxide  |  | 30   | 7722-84-1   |

### FIRST-AID MEASURES 4.

3.

**Description of Necessary First Aid Measures** 

| Eye<br>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<br>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<br>in a position comfortable for breathing. If material has been swallowed and the exposed person is<br>conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting<br>may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If<br>vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical<br>attention if adverse health effects persist or are severe. Never give anything by mouth to an<br>unconscious person. If unconscious, place in recovery position and get medical attention<br>immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |

### Potential Acute Health Effects

Eye Contact

Skin Contact

#### **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.

damage (H319)

(H315)

Sulfuric Acid (Stop Solution): Causes serious eye

Sulfuric Acid (Stop Solution): Causes skin irritation

#### **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-<br>Emergency<br>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<br>Emergency<br>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<br>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<br>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-<br>soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an<br>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.<br>Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into<br>an effluent treatment plant or proceed as follows. Contain and collect spillage with non-<br>combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place<br>in container for disposal according to local regulations (see Section 13). Dispose of via a<br>licensed waste disposal contractor. Contaminated absorbent material may pose the same<br>hazard as the spilled product. Note: see Section 1 for emergency contact information and<br>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.

| Appearance                            | Clear, colorless |
|---------------------------------------|------------------|
| Odor                                  | Odorless         |
| Physical State                        | Liquid           |
| рН                                    | 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              |

# 9. PHYSICAL AND CHEMICAL PROPERTIES

## 10. STABILITY AND REACTIVITY

| Chemical Stability  |  |
|---------------------|--|
| Hazardous Reactions |  |

Stable under normal handling procedures. Under normal conditions of storage and use, hazardous reactions will not occur.

# 11. TOXICOLOGICAL INFORMATION

# Acute toxicity

| Ingredient Name   | Result | Species   | Dose  |
|-------------------|--------|---|---|
| Sulfuric Acid     | LD50   | Oral rat<br>Inhalation rat  | 347 ppm<br>2140 mg/kg                                       |
| Formaldehyde      | LD50   | Oral rat<br>Inhalation rat<br>Skin rabbit<br>Draize test, rabbit, eye | 100 mg/kg<br>64000 ppm/4H<br>270 uL/kg<br>750 ug/24H Severe |
| Hydrogen Peroxide | LD50   | Oral rat<br>Inhalation rat<br>Skin rat                                | 1518 mg/kg<br>2 gm/m3/4H<br>3 gm/kg                         |

| Carcinogenicity                                     | CAS# 50-00-0:<br>ACGIH: A2 - Suspected Human Carcinogen<br>California: carcinogen; initial date 1/1/88<br>NIOSH: occupational carcinogen<br>NTP: Suspect carcinogen<br>OSHA: Possible Select carcinogen CAS# 7722-84-1:<br>IARC: Group 3 carcinogen |
|---|---|
| Sensitization                                       | Not Available   |
| Mutagenicity  | Not available   |
| Reproductive Toxicity                               | Not Available   |
| Specific target organ toxicity<br>(single exposure) | Not available   |

|     | Specific target organ toxicity<br>(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  | Formaldehyde solution (fixing solution): Eye irritant.<br>Hydrogen Peroxide (quenching buffer): May cause severe eye damage.  |
|     | Inhalation   | Sulphuric Acid (stop solution): Harmful if inhaled.<br>Hydrogen Peroxide (quenching buffer): May be harmful if inhaled.   |
|     | Ingestion  | Formaldehyde solution (fixing solution): Risk of serious damage if swallowed.<br>Hydrogen Peroxide (quenching buffer): Harmful if swallowed.  |
|     | Skin Contact   | Formaldehyde solution (fixing solution): Skin irritant.<br>Hydrogen Peroxide (quenching buffer): Causes severe skin burns   |
| 12. | ECOLOGICAL INFORMATION   |   |
|     | Ecotoxicity  | No data available   |
|     | Persistence and degradability  | No data available   |
|     | <b>Bioaccumulation/accumulation</b>  | No data available   |
|     | Mobility in environmental media  | No data available   |
|     | Other hazardous effects  | May be harmful to the environment, particularly aquatic organisms.  |
| 40  | DISPOSAL CONSIDERATIONS  |   |
| 13. |  |   |
| 13. | Disposal methods   | Disposal should be in accordance with applicable national, state, and local<br>laws and regulations. Local regulations may be more stringent than national or<br>state requirements. Verify local and state regulations before discharging into<br>public sewers or landfills. Do not dump into any body of water. Contact a<br>licensed professional waste disposal service for appropriate methods of<br>disposal.  |
| 13. |  | laws and regulations. Local regulations may be more stringent than national or<br>state requirements. Verify local and state regulations before discharging into<br>public sewers or landfills. Do not dump into any body of water. Contact a<br>licensed professional waste disposal service for appropriate methods of  |
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|     | Disposal methods<br>TRANSPORT INFORMATION<br>DOT   | laws and regulations. Local regulations may be more stringent than national or<br>state requirements. Verify local and state regulations before discharging into<br>public sewers or landfills. Do not dump into any body of water. Contact a<br>licensed professional waste disposal service for appropriate methods of<br>disposal.<br>Not dangerous goods.   |
|     | Disposal methods<br>TRANSPORT INFORMATION<br>DOT<br>IATA   | laws and regulations. Local regulations may be more stringent than national or<br>state requirements. Verify local and state regulations before discharging into<br>public sewers or landfills. Do not dump into any body of water. Contact a<br>licensed professional waste disposal service for appropriate methods of<br>disposal.<br>Not dangerous goods.<br>Not dangerous goods.   |
| 14. | Disposal methods<br>TRANSPORT INFORMATION<br>DOT<br>IATA<br>ADR  | laws and regulations. Local regulations may be more stringent than national or<br>state requirements. Verify local and state regulations before discharging into<br>public sewers or landfills. Do not dump into any body of water. Contact a<br>licensed professional waste disposal service for appropriate methods of<br>disposal.<br>Not dangerous goods.<br>Not dangerous goods.   |
| 14. | Disposal methods<br>TRANSPORT INFORMATION<br>DOT<br>IATA<br>ADR<br>REGULATORY INFORMATION  | laws and regulations. Local regulations may be more stringent than national or<br>state requirements. Verify local and state regulations before discharging into<br>public sewers or landfills. Do not dump into any body of water. Contact a<br>licensed professional waste disposal service for appropriate methods of<br>disposal.<br>Not dangerous goods.<br>Not dangerous goods.<br>Not dangerous goods.   |
| 14. | Disposal methods<br>TRANSPORT INFORMATION<br>DOT<br>IATA<br>ADR<br>REGULATORY INFORMATION<br>United States (TSCA)  | <ul> <li>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.</li> <li>Not dangerous goods.</li> <li>Not dangerous goods.</li> <li>Not dangerous goods.</li> <li>All ingredients are on the inventory or exempt from listing.</li> </ul>   |
| 14. | Disposal methods<br>TRANSPORT INFORMATION<br>DOT<br>IATA<br>ADR<br>REGULATORY INFORMATION<br>United States (TSCA)<br>Canada (DSL / NDSL)   | <ul> <li>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.</li> <li>Not dangerous goods.</li> <li>Not dangerous goods.</li> <li>Not dangerous goods.</li> <li>All ingredients are on the inventory or exempt from listing.</li> <li>Sulfuric Acid (Stop Solution): CAS 7664-93-9 Formaldehyde solution (fixing</li> </ul>   |
| 14. | Disposal methods<br>TRANSPORT INFORMATION<br>DOT<br>IATA<br>ADR<br>REGULATORY INFORMATION<br>United States (TSCA)<br>Canada (DSL / NDSL)<br>SARA 302 Components                        | <ul> <li>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.</li> <li>Not dangerous goods.</li> <li>Not dangerous goods.</li> <li>Not dangerous goods.</li> <li>All ingredients are on the inventory or exempt from listing.</li> <li>All ingredients are on the inventory or exempt from listing.</li> <li>Sulfuric Acid (Stop Solution): CAS 7664-93-9 Formaldehyde solution (fixing solution): 50-00-0 Hydrogen Peroxide (quenching buffer): 7722-84-1</li> <li>Sulfuric Acid (Stop Solution): Concentration &lt;3% Formaldehyde solution (fixing solution): Concentration &lt;5% Hydrogen Peroxide (quenching buffer):</li> </ul>   |
| 14. | Disposal methods<br>TRANSPORT INFORMATION<br>DOT<br>IATA<br>ADR<br>REGULATORY INFORMATION<br>United States (TSCA)<br>Canada (DSL / NDSL)<br>SARA 302 Components<br>SARA 313 Components | laws and regulations. Local regulations may be more stringent than national or<br>state requirements. Verify local and state regulations before discharging into<br>public sewers or landfills. Do not dump into any body of water. Contact a<br>licensed professional waste disposal service for appropriate methods of<br>disposal.<br>Not dangerous goods.<br>Not dangerous goods.<br>Not dangerous goods.<br>All ingredients are on the inventory or exempt from listing.<br>All ingredients are on the inventory or exempt from listing.<br>Sulfuric Acid (Stop Solution): CAS 7664-93-9 Formaldehyde solution (fixing<br>solution): 50-00-0 Hydrogen Peroxide (quenching buffer): 7722-84-1<br>Sulfuric Acid (Stop Solution): Concentration <3% Formaldehyde solution<br>(fixing solution): Concentration <5% Hydrogen Peroxide (quenching buffer):<br>Concentration <5%<br>Sulfuric Acid (Stop Solution): Health hazard - Skin corrosion or Irritation |

16. OTHER INFORMATION

Disclaimer

Last Revised

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.

September 1, 2020

