

**Material Safety Data Sheet**

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**1. Identification of substance:**· **Product details:**· **Product name:** Human TNF- $\beta$ /TNFSF1B Quantikine ELISA Kit**Catalog number:** DTB00· **Manufacturer/Supplier:**

R&amp;D Systems, Inc.

614 McKinley Place N.E.

Minneapolis, MN 55413

Tel.: (612)379-2956/(800)-343-7475. In Europe call +44(0)1235-529449

· **Information department:** Biotech RA/QA· **Emergency information:**

In case of a chemical emergency, spill, fire, or exposure, call R&amp;D Systems at (612) 379-2956/(800)-343-7475. In Europe call +44(0)1235-529449

**2. Hazard identification:****Hazard description:**· **NFPA ratings (scale 0-4)**

Health = 3

Fire = 0

Reactivity = 2

**Classification:** C:R21,Xi:R34,R36/37/38,Xn:R20/21/22**Australian Regulatory Information:** Hazard Classification: Hazardous Substance. Non-Dangerous Goods.**National Exposure Standard Value:** TWA-7.5 mg/m<sup>3</sup>, STEL-Peak Limitation**3. Composition/Data on components:**

Hazardous Ingredients	%	CAS Number	Classification
2N Sulfuric Acid (Stop Solution)	5.54	7664-93-9	Xn: R20/21/22 Xi: R34,R36/37/38 C:R21

**4. First aid measures**· **General information** No special measures required.

If swallowed DO NOT induce vomiting; if conscious, give water, milk, or milk of magnesia. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash cloths before re-use. No special means to provide specific and immediate treatment is needed at the workplace. No immediate medical attention is required.

· **Information for doctor:** Show this MSDS

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### **Suitable extinguishing agents**

Use Dry Chemical or Carbon Dioxide. DO NOT use water.

**-Protective equipment:** This is a laboratory-use product for which no industrial protective equipment has been designated.

## **6. Accidental release measures**

· **Person-related safety precautions:** Wear protective clothing.

· **Measures for environmental protection:** N/A

· **Measures for cleaning/collecting:**

Neutralize spill with soda ash or lime. Carefully place material into a spill control container and remove from area. Flush spill area with water.

· **Additional information:** No dangerous substances are released.

· **If appropriate refer to sections 8 and 13.**

## **7. Handling and storage**

· **Handling**

· **Information for safe handling:** DO NOT get in eyes, on skin, or clothing. DO NOT breath vapor. Wash thoroughly after handling.

· **Information about protection against explosions and fires:** No special measures required.

· **Storage:** 2-8° C

· Keep in tightly closed container. Store separately and away from flammable and combustible materials

## **8. Exposure controls and personal protection**

· **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:** Not required.

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Personal Protective Equipment**

· **General protective and hygienic measures** Keep away from foodstuffs, beverages and feed.

· **Breathing equipment:** Not required.

· **Protection of hands:** Latex gloves

· **Eye protection:** Safety glasses

· **Body protection:** Lab Coat

· **Engineering Controls (specify, EG, Ventilation, Enclosed process):** Use with adequate ventilation.

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- **Form:** Liquid
- **Color:** Clear, Colorless Solution
- **Odor:** Odorless
- **Change in condition** Undetermined
- **Melting point/Melting range:** Not determined
- **Boiling point/Boiling range:** Not determined
- **Flash point:** N/A
- **Danger of explosion:** N/A
- **Vapor pressure:** N/A
- **Density:** N/A
- **Solubility:** With much Heat
- **pH-value:** 0.3(1N Solution)
- **Organic Solvents:** N/A
- **Auto Flammability:** N/A
- **Explosive properties:** N/A
- **Oxidizing properties:** N/A
- **Partition Coefficient:** N/A

### **10 Stability and reactivity**

- **Hazardous Decomposition Products:** N/A
- **Materials to be avoided:** Incompatible material: Water and Strong Bases.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** No dangerous decomposition products known
- Conditions to avoid:** Heat, moisture, incompatibles.
- Stability:** Product is stable.
- Possibility of a hazardous exothermic reaction:** N/A
- Safety Significance with change in physical appearance of the substance/ preparation:** N/A
- Degradation to unstable products:** N/A

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### 11 Toxicological Information

- **Acute toxicity:** Contact with skin or eyes may cause severe irritation or burns. Vapors may be irritating to eyes, nose, and throat. Poison may be fatal if swallowed, causes burns.
- **Primary irritant effect:**
- **on the skin:** N/A.
- **on the eye:** N/A
- **Sensitization:** N/A
- Effect of Chronic Exposure to Product:** N/A
- Exposure Limits:** N/A
- Irritancy:** N/A
- Sensitization To Product:** N/A
- Carcinogenicity:** N/A
- Teratogenicity:** N/A
- Reproductive Toxicity:** N/A
- Mutagenicity:** N/A
- Synergistic Products:** N/A
- LD<sub>50</sub> of ingredients (species and route):** N/A

### 12. Ecological information

- **Ecotoxicological effects:**
- **Other information:**  
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- LC<sub>50</sub> (Specify species):** N/A

Name	Persistence degradation	bio-accumulative potential	Mobility	Aquatic Toxicity
Sulfuric Acid	N/A	N/A	N/A	N/A

### 13 Disposal considerations

- **Recommendation**  
Dispose in accordance with all applicable federal, state, EU and local environmental regulations relating to waste.
- **Dangerous Waste:** N/A

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### 14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** N/A
- **Maritime transport IMDG:**
- **IMDG Class:** N/A
- **Marine pollutant:** N/A
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** N/A
- **Precautions relating to product's transport/conveyance:** N/A

### 15 Regulations

- **Product related hazard informations:**  
The substance is not subject to classification according to the sources of literature known to us.  
Observe the general safety regulations when handling chemicals  
The product is not subject to identification regulations pertaining to regulations on hazardous materials.
- **Safety phrases:**  
13 Keep away from food, drink and animal feedingstuffs.  
28 After contact with skin, wash immediately with plenty of soap and water  
37/39 Wear suitable gloves and eye/face protection.  
56 Dispose of this material and its container at hazardous or special waste collection point
- **National regulations**
- **Additional classification according to Decree on Hazardous Materials:**  
CERCLA: This product does not contain chemicals having a Reportable Quantity (RQ).  
SARA 311/312: May be subject to reporting.  
313: Not subject to reporting.  
TSCA: This product is exempt under TSCA.
- **Classification according to VbF:** Void
- **Water hazard class:** Generally not hazardous for water.
- **Classification:** Corrosive, Irritant and Harmful.
- **Risk Phrases:** R21-Harmful in contact with skin. R20/21/22-Harmful in contact with skin and if swallowed. R34-Causes Burns. R36/37/38-Irritating to eyes, respiratory system and skin.
- **Hazard Ingredient:** Sulfuric Acid
- **Product use/Sale restrictions:** For research use only, read instructions for use before using the product.
- **HSCC Code:** 3822 00 00

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### **16 Other information**

**Risk Phrases:** R21-Harmful in contact with skin.

R20/21/22-Harmful in contact with skin and if swallowed.

R34-Causes Burns

R36/37/38-Irritating to eyes, respiratory system and skin.

**The information on this Material Safety Data Sheet is based on the following references:**

-Directive 1999/45/EC Of The European Parliament And Of The Council of 31 May, 1999

-U.S. Occupational Safety and Health Administration Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, R&D Systems does not assume any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**-Recommended uses and restrictions:** Follow instructions provided with product.

· **Department issuing MSDS:** RA/QA

· **Contact:** RA/QA

**-Revision:** 0

