

**\*\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*\***

MSDS Name: Human 4-1BB Ligand / TNFSF9 (71-254) Protein, His,Flag Tag, active trimer (MALS verified)

**\*\*\*\* SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION \*\*\*\***

MSDS Name: Human 4-1BB Ligand / TNFSF9 (71-254) Protein, His,Flag Tag, active trimer (MALS verified)

Catalog Numbers: 41L-H52D4

Company Identification: ACROBIOSYSTEMS INC

For information, call: +1 800-810-0816

**\*\*\*\* SECTION 2 - HAZARDS IDENTIFICATION \*\*\*\*****EMERGENCY OVERVIEW**

Eye: Potassium chloride can cause eye irritation, including redness, tearing, and possible abrasions.

Skin: Sodium Phosphate is a corrosive material and can cause burns.

Sensitization possible through skin contact and inhalation.

Ingestion: Material can be irritating to mucous membranes and respiratory tract.

Inhalation: Inhalation of high concentrations of dust may cause nasal or lung irritation.

Ingestion of large quantities can produce gastrointestinal irritation and vomiting.

Chronic: N/A

**\*\*\*\* SECTION 3 - COMPOSITION, INFORMATION ON INGREDIENTS \*\*\*\***

The product contains no substances which at their given concentration, are considered to be hazardous to health.

We recommend handling all chemicals with caution.

**\*\*\*\* SECTION 4 - FIRST AID MEASURES \*\*\*\***

Eyes: Rinse opened eye for at least 15 minutes under running water, lifting upper and lower eyelids occasionally.

Seek medical attention.

Skin: Remove contaminated clothing. Immediately wash with plenty of soap and water for at least 15 minutes.

Seek medical attention.

Ingestion: swallowed and patient is conscious, induce vomiting. Seek medical attention immediately.

Inhalation: In case of unconsciousness, place patient on side position for transportation.

If not breathing, give artificial respiration. Supply fresh air or oxygen; seek medical attention immediately.

**\*\*\*\* SECTION 5 - FIRE FIGHTING MEASURES \*\*\*\***

Fight larger fires with water or alcohol resistant foam. Firefighters should wear protective equipment and self-contained breathing apparatus. As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

**\*\*\*\* SECTION 6 - ACCIDENTAL RELEASE MEASURES \*\*\*\***

Personal Precautions Use personal protective equipment.

Methods for Cleaning Up Take up mechanically and collect in suitable container for disposal.

**\*\*\*\* SECTION 7 - HANDLING AND STORAGE \*\*\*\***

Handling: Wear personal protective equipment.

Storage: Keep in properly labelled containers.

**\*\*\*\* SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION \*\*\*\***

Engineering Controls: Ensure adequate ventilation, especially in confined areas

**Personal Protective Equipment**

Respiratory Protection : In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection: Protective gloves.

Eye Protection: Safety glasses with side-shields.

Skin and Body Protection: Lightweight protective clothing.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure: Prevent product from entering drains.

**\*\*\*\* SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES \*\*\*\*****General Information**

Form Solid Lyophilized powder

**Important Health Safety and Environmental Information**

Boiling Point/Range	°C No data available	°F No data available
Melting Point/Range	°C No data available	°F No data available
Flash Point	°C No data available	°F No data available
Autoignition Temperature	°C No data available	°F No data available
Oxidizing Properties	No information available	
Water Solubility	No data available	

**\*\*\*\* SECTION 10 - STABILITY AND REACTIVITY \*\*\*\***

Stability	Stable.
Materials to Avoid	No information available.
Hazardous decomposition products	No information available.
Polymerization	Hazardous polymerisation does not occur.

**\*\*\*\* SECTION 11 - TOXICOLOGICAL INFORMATION \*\*\*\*****Acute Toxicity**Principle Routes of Exposure/  
Potential Health effects

Eyes	May cause eye irritation with susceptible persons.
Skin.	No information available.
Inhalation	May cause irritation of respiratory tract.
Ingestion	May be harmful if swallowed.

**Specific effects (Long Term Effects)**

Carcinogenic e	No information available.
Mutagenic E	No information available.
Reproductive T	No information available.
Sensitization	No information available.

**\*\*\*\* SECTION 12 - ECOLOGICAL INFORMATION \*\*\*\***

Ecotoxicity E	No information available.
Mobility	No information available.
Biodegradation	Inherently biodegradable.
Bioaccumulation	Does not bioaccumulate.

**\*\*\*\* SECTION 13 - DISPOSAL CONSIDERATIONS \*\*\*\***

Dispose of in accordance with local regulations

**\*\*\*\* SECTION 14 - TRANSPORT INFORMATION \*\*\*\***

Transportation information-DOT/IATA/IMDG

Not dangerous goods. Be available for any mode of transportation.

**\*\*\*\* SECTION 15 - REGULATORY INFORMATION \*\*\*\***

This safety datasheet complies with the requirements of Regulation (EC) No. 1272/2008 (CLP/EU-GHS), 29 CFR 1910.1200 (OSHA). Safety, health and environmental regulations/legislation specific for the substance or mixture---no data available  
Chemical Safety Assessment---For this product a chemical safety assessment was not carried out

**\*\*\*\* SECTION 16 - OTHER INFORMATION\*\*\*\***

For research use only

**Reported by:**Company Name : ACROBIOSYSTEMS INC

Date: 05/30/2024