

# Material Safety Data Sheet

---

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Recombinant Human IL-2 (Carrier-free) ..... Cat.No. 21-8029-U010 ..... Size 10 ug  
Catalog Number: 21-8029-U010  
Brand: Tonbo Biosciences  
Supplier: Tonbo Biosciences  
4940 Carroll Canyon Road  
San Diego, CA 92121-1735  
USA  
Telephone: +1 (855) 848-6626 toll-free  
Fax: +1 (858) 888-7301  
Emergency Phone: +1 (858) 888-7300  
Preparation Information: Tonbo Biosciences Product Safety  
+1 (855) 848-6626 toll-free

---

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

#### OSHA Hazards

No known OSHA hazards.

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

#### HMIS Classification

<b>Health Hazard:</b>	0
<b>Flammability:</b>	0
<b>Physical Hazards:</b>	0

#### NFPA Rating

<b>Health Hazard:</b>	0
<b>Fire:</b>	0
<b>Reactivity Hazard:</b>	0

#### Potential Health Effects

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.
<b>Ingestion</b>	May be harmful if swallowed.

# Material Safety Data Sheet

---

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Lyophilized recombinant human IL-2. No ingredients are hazardous or the concentration of all chemicals are below the regulatory threshold limits according to OSHA criteria.

---

## 4. FIRST AID MEASURES

### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen and consult a physician.

### In case of skin contact

Wash off immediately with soap and plenty of water, remove any contaminated clothing, and consult a physician.

### In case of eye contact

Flush eyes with water for at least 15 minutes and consult a physician.

### If swallowed

Rinse mouth with water and consult a physician immediately.

---

## 5. FIREFIGHTING MEASURES

### Conditions of flammability

Not flammable or combustible.

### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Special protective equipment for firefighters

Wear self contained breathing apparatus and protective clothing for fire fighting.

### Hazardous combustion products

No data available

---

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Avoid breathing vapors, mist or gas.

### Environmental precautions

No special environmental precautions required.

### Methods and materials for containment and cleaning up

Use a damp mop or sponge to clean up spill and surrounding area. Keep in suitable, closed containers for disposal.

# Material Safety Data Sheet

---

## 7. HANDLING AND STORAGE

### Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Avoid contact with eyes, skin, and clothing.

Recommended storage temperature: -20°C

---

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### Personal protective equipment

#### Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin and body protection

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

General laboratory hygiene practice including washing thoroughly after handling and washing contaminated clothing before reuse.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form

solid

Color

no data available

# Material Safety Data Sheet

## Safety data

pH	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

---

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

no data available

### Conditions to avoid

Strong oxidizers.

### Materials to avoid

Strong oxidizers.

### Hazardous decomposition products

Other decomposition products - no data available

# Material Safety Data Sheet

---

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Oral LD50

#### Inhalation LC50

no data available

#### Dermal LD50

#### Other information on acute toxicity

no data available

#### Skin corrosion/irritation

no data available

#### Serious eye damage/eye irritation

Eyes: no data available

#### Respiratory or skin sensitization

no data available

#### Germ cell mutagenicity

no data available

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

#### Reproductive toxicity

no data available

#### Teratogenicity

no data available

#### Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

#### Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

#### Aspiration hazard

no data available

# Material Safety Data Sheet

## Potential health effects

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.

## Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## Synergistic effects

no data available

## Additional Information

RTECS: Not available

---

## 12. ECOLOGICAL INFORMATION

### Toxicity

no data available

### Persistence and degradability

no data available

### Bioaccumulative potential

no data available

### Mobility in soil

no data available

### PBT and vPvB assessment

no data available

### Other adverse effects

no data available

---

## 13. DISPOSAL CONSIDERATIONS

### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dispose of product in accordance with federal, state and local regulations.

### Contaminated packaging

Dispose of as unused product in accordance with federal, state and local regulations.

# Material Safety Data Sheet

---

## 14. TRANSPORT INFORMATION

**DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

---

## 15. REGULATORY INFORMATION

**OSHA Hazards**

No known OSHA hazards

**SARA 302 Components**

No components are subject to reporting levels established by SARA Title III, Section 302:

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

No SARA Hazards

**Reportable Quantity**    lowest RQ > 999999 lbs  
   lowest RQ > 999999 lbs

**Massachusetts Right To Know Components**

Recombinant human IL-2

**Pennsylvania Right To Know**

Recombinant human IL-2

# Material Safety Data Sheet

## New Jersey Right To Know Components

	CAS-No.	Revision Date
Water	7732-18-5	
Sodium azide	26628-22-8	2007-07-01

## California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

---

## 16. OTHER INFORMATION

### Further information

Copyright 2013 Tonbo Biosciences. License granted to make unlimited paper copies for internal use only.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Tonbo Biosciences and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.tonbobio.com](http://www.tonbobio.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale. This product is for R&D use only: not for drug, household, or other uses.