

## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY INFORMATION

#### 1.1 Catalog Number

PD1-HM101-UL

#### 1.2 Product Name

Human PD-1/PDCD1 Protein, Ultra Low Endotoxin

#### 1.3 Supplier / Manufacturer

KactusBio Inc.

Tel: 1 (617) 665-7333

Fax: 1 (617) 665-7333

#### 1.4 Application of the substance of mixture

For Research Use Only.

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.1 Ingredients

This product does not contain any hazardous substances and carcinogens.

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

##### 4.1.1 Eye contact

Flush with copious amounts of water for at least 15 minutes. Consult a doctor if necessary.

##### 4.1.2 Skin contact

Immediately rinse with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor if necessary.

##### 4.1.3 Inhalation

Immediately remove to fresh air and monitor breathing. Consult a doctor if breathing becomes difficult.

**4.1.4 Ingestion**

Rinse mouth and drink plenty of water if swallowed. Do not induce vomiting without professional guidance. Get immediate medical attention.

**4.2 Most important symptoms and effects, both acute and delayed**

Not Applicable.

**5. FIRE FIGHTING MEASURES****5.1 Suitable extinguishing media**

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

**5.2 Unsuitable extinguishing media**

No information available.

**5.3 Precautions for fire-fighters**

Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

**6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions**

Use personal protective equipment and implement appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

**6.2 Methods for clean up**

Take up mechanically, placing in appropriate containers for disposal. Ventilate area and wash site after material is picked up.

**7. HANDLING AND STORAGE****7.1 Precautions for safe handling**

Avoid inhalation, contact with eyes, skin and clothing. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

**7.2 Storage**

Store in properly place and labelled containers. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Combined with the product data sheet to get more information.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****8.1 Control parameters**

Contains no substances with occupational exposure limit values.

## 8.2 Engineering Controls

Ensure adequate ventilation, especially in confined areas.

## 8.3 Personal precautions

### 8.3.1 Eye Protection

Wear appropriate safety glasses.

### 8.3.2 Skin and Body Protection

Wear appropriate protective clothing and gloves that cannot be penetrated by chemicals or oil.

## 9. CHEMICAL AND PHYSICAL PROPERTIES

### Information on basic physical and chemical properties

**Appearance**

Lyophilized powder or liquid

**Evaporation Rate**

No data available

**Melting / freezing point**

No data available

**Vapor Pressure**

No data available

**Boiling Point / Range**

No data available

**Vapor Density**

No data available

**Flash point**

No data available

**Oxidizing properties**

No data available

**Flammability**

No data available

**Explosive properties**

No data available

**Autoignition Temperature**

No data available

**Viscosity**

No data available

**Decomposition Temperature**

No data available

**Water Solubility**

No data available

## 10. STABILITY AND REACTIVITY

### 10.1 Stability

Stable under recommended storage conditions.

### 10.2 Conditions to avoid

No data available.

**10.3 Hazardous polymerization**

No harmful polymerization reaction occurs.

**10.4 Hazardous decomposition**

No data available.

**10.5 Incompatible materials**

No data available.

**10.6 Possibility of hazardous reactions**

No data available.

**11. TOXICOLOGICAL INFORMATION****11.1 Possible acute toxicity****11.1.1 Eye**

May be irritant to susceptible persons.

**11.1.2 Skin and Body**

No data available.

**11.1.3 Inhalation**

May be harmful if inhaled.

**11.1.4 Ingestion**

May be harmful if swallowed.

**11.2 Possible chronic toxicity**

No data available.

**12. ECOLOGICAL INFORMATION****12.1 Ecotoxicity**

No data available.

**12.2 Persistence and degradability**

No data available.

**12.3 Bioaccumulative potential**

No data available.

**13. DISPOSAL INFORMATION**

Dispose of this product and its container or liner in accordance with approved disposal technique

and local regulations as required.

#### **14. TRANSPORTATION INFORMATION**

##### **IATA DGR / IMDG Code**

Non-hazardous for transport.

#### **15. REGULATORY INFORMATION**

No information.

#### **16. OTHER INFORMATION**

##### **16.1 Disclaimer**

Not for human use.

##### **16.2 Further Information**

The information shall not be taken as being all inclusive and is to be used only as a guide, it may not apply to all people or situations. The SDS does not represent any guarantee of the properties of the product and constitute an express or implied warranty. All materials and mixtures may present unknown hazards and should be used with caution.

**End of Safety Data Sheet**