

SAFETY DATA SHEET

1. PRODUCT AND COMPANY INFORMATION

1.1 Catalog Number

PD1-HM401B-UL

1.2 Product Name

Biotinylated 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