Issue Date: 01.06.2020 Revision Date: 01.07.2021

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product Name: Anti Bovine Podoplanin, Monoclonal Antibody (PMab-44)

Company: ZENOGEN PHARMA CO., LTD.

1-1 Tairanoue, Sasagawa, Asaka-machi, Koriyama City,

Fukushima 963-0196, Japan

Telephone: +81-24-947-8503 Fax: +81-24-947-8507

SECTION 2: Hazards identification

GHS classification

Classification of substance or mixture

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

Pictograms

Signal Words: none Hazard statement:

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

Precautionary statements-Prevention, Response, Storage and Disposal

Not applicable

SECTION 3: Composition/information on ingredients

Single Substance or Mixture

| Chemical Name | CAS No. | Weight-% | Molecular Weight | ENCS | ISHL No. |
|-----------------------------------|---|-------------|------------------|---------|----------|
| Water | 7732-18-5 | <99 | 18.02 | N/A | N/A |
| Sodium Chloride | 7647-14-5 | <1 | 58.44 | (1)-236 | N/A |
| Disodium Hydrogen | 7558-79-4 | < 0.2 | 141.96 | (1)-497 | N/A |
| Phosphate | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 70.2 | 1.1.70 | (1) 197 | 1,712 |
| Antibody | N/A | < 0.2 | N/A | N/A | N/A |
| Potassium Dihydrogen Phosphate | 7778-77-0 | <0.05 | 136.09 | (1)-452 | N/A |
| Sodium azide | 26628-22-8 | 0.05 | 65.01 | (1)-482 | N/A |
| Potassium Chloride | 7447-40-7 | < 0.05 | 74.55 | (1)-228 | N/A |

Impurities and/or additives: sodium azide (perseption)

SECTION 4: First aid measures

Inhalation: Remove to fresh air. If symptoms persist, call a physician.

Skin contact: Wash off immediately with a soap and plenty of water. If symptoms persist, call a physician.

Eye contact

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rising. Immediate medical attention is required.

Ingestion: Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

SECTION 5: Firefighting measures

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment Unsuitable extinguishing media

No information available

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipment to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for containment and methods and materials for cleaning up

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

Recovery, neutralization

No information available

Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

SECTION 7: Handling and storage

Handling

Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

•Technical measures

Avoid contact with strong oxidizing agents. Use with local exhaust ventilation.

Storage

•Incompatible substances

Strong oxidizing agents

•Safe storage condition

Store away from sunlight in cold (-20°C). Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

Exposure limit

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

•permitted concentration of biological criteria and others.

•Engineering Control

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

Personal protective equipment

- 1. Local exhaustion or protective tools of respiration
- 2. Protection gloves
- 3. Protective clothes
- 4. Safety shower
- 5. Safety goggles
- 6. Facial shield
- 7. Washing eyes machine

SECTION 9: Physical and chemical properties

Form

Appearance liquid

Odor No data available

pH No data available

Melting point/Freezing point No data available

Boiling point, initial boiling point and boiling range No data available

Flash Point No data available

Evaporation rate No data available

Upper/Lower

Upper: No data available Lower: No data available

Vapor pressure No data available Vapor density No data available

Specific Gravity / Relative density No data available

Solubility No data available

SECTION 10: Stability and reactivity

Stability Stable under recommended storage conditions

Reactivity No data available

Conditions to avoid

Extremes of temperature and direct sunlight

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx)

SECTION 11: Toxicological information

Acute toxicity No data available

Skin irritation/corrosion No data available

Serious eye damage/irritation No data available

Respiration or skin sensitization No data available

Reproductive cell mutagenicity No data available

Carcinogenicity No data available

Reproductive toxicity No data available

STOT-single exposure No data available

STOT-(repeated exposure) No data available

Aspiration hazard No data available

SECTION 12: Ecological information

Eco-toxicity No information available

Persistence and Degradability No information available

Bio-accumulative No information available

Mobility in soil No information available

Hazard to the ozone layer No information available

SECTION 13: Disposal considerations

Method to dispose wastes safety and ecologically

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Method to dispose container and packaging properly

Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14: Transport information

International regulation Not regulated

UN number Not applicable

Shipping name (Shipping name registered by UN) Not applicable

UN classification Not applicable

Subsidiary hazard class Not applicable

Packaging group Not applicable

Marine pollutant Not applicable

SECTION 15: Regulatory information

Fire Service Act Not applicable

Poisonous and Deleterious Not applicable

Industrial safety and health law Not applicable

Regulation of PRTR Not applicable

SECTION 16: Other information

Key literature references and sources for data etc.

NITE: National Institute of Technology and Evaluation (JAPAN) http://www.safe.nite.go.jp/japan/db.html

IATA dangerous Goods Regulations

RTECS: Registry of Toxic Effects of Chemical Substances

Disclaimer

Although the information written in this paper is composed by documents, information and data we can obtain at the present, the accuracy and completeness of these information do not be proven as perfect. The information applies for normal handling of this product, if you do handle for special purposes, please handle it based on the suitable method for the purpose.