

SAFETY DATA SHEET

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

Product Name: STEM-CELLBANKER GMP grade
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
Product Code: 11922 (20 ml) / 11924 (100 ml)

SECTION 2: Hazards identification

GHS classification and label elements, including precautionary statements:

GHS classification:

Health hazards Specific target organ toxicity (single exposure): Category 2

GHS label elements:

Pictograms



Signal word

Warning

Toxicological information

May cause damage to organs

Precautionary statements

Prevention:

Do not breathe dust/fume/mist.

Wash contaminated area thoroughly after handling.

Do not eat, drink or smoke when using this product.

Response:

IF exposed or concerned: Get medical advice or attention.

Disposal:

Dispose of contents/container in accordance with local and national regulations.

SECTION 3: Composition/information on ingredients

Uniform product or mixture: Mixture

Intended Use: Cell cryopreservation solution

Product composition:

Ingredients	CAS №	EINECS №	RTECS #	Amount (%)
Dimethyl sulfoxide	67-68-5	200-664-3	PV6210000	10%
Inorganic salts	-	-	-	≤ 10%

Hazardous ingredients: Applicable ingredient corresponding to the GHS classification and the health hazards symbol: Dimethyl sulfoxide

SECTION 4: First aid measures

- If inhaled:** If breathed in, move person into fresh air. Keep calm and warm. Consult a physician immediately.
- In case of skin contact:** Wash off with soap and plenty of water. Remove contaminated clothes. Consult a physician if area becomes inflamed.
- In case of eye contact:** Immediately flush eyes with running water for several minutes (remove contact lenses if easily possible). Consult a physician immediately.
- If swallowed:** Rinse mouth thoroughly with water and have person drink one to two glasses of water or milk. Consult a physician immediately. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

SECTION 5: Firefighting measures

- Extinguishing media:** Fire-extinguishing powder, carbon dioxide, foam (alcohol foam), water
- Special hazards arising from the substance or mixture:** May give off irritating or toxic fumes (or gasses) in fires. During firefighting, wear proper protective equipment to avoid smoke inhalation.
- Advice for firefighters:** Extinguish with extinguishing media, cutting off the source of the fire. Promptly move all movable containers to a safe location. Cool non-movable containers by spraying mist around the area.
- Protection for firefighters:** Perform firefighting activities upwind, avoiding the inhalation of hazardous gasses.
Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

- Personal precautions:** If indoors, ventilate adequately until disposal is complete. Rope off location around area of release to prevent access by unauthorized personnel.
- Environmental precautions:** Do not let product enter drains. Ensure that contaminated waste water is not released into the environment before being properly treated.
- Methods for cleaning up:** Keep away from fire. Mop up spilled liquid with rags, towels, or earth,

collect in an empty container, and wash away with plenty of water.
Be sure to wear protective equipment when working. Work upwind.

SECTION 7: Handling and storage

Precautions for safe handling: Wear proper protective equipment to avoid inhalation and prevent contact with eyes, skin, and clothing.

Conditions for safe storage: Store at 2 to 8 or below -20 °C.

Safety handling precautions: Obtain instruction before use.

SECTION 8: Exposure controls/personal protection

Control parameters

Control concentration: No data available

Permissive concentration

Japan Society for Occupational Health: Not established

ACGIH TLV(S): Not established

OSHA PEL: Not established

Exposure Prevention

Facility control: Install local ventilation.

Protective equipment

Respiratory protection: Respiratory protective mask

Hand protection: Protective gloves

Eye protection: Protective eyewear

Skin and Body protection: Protective clothing

SECTION 9: Physical and chemical properties

Form:	Liquid
Color:	Clear, colorless liquid
Odor:	Slight characteristic odor
Odor Threshold:	No data available
Melting/Freezing point:	No data available
Boiling/Initial boiling point:	Not applicable
Boiling range:	No data available
Flammability:	No data available
Explosive limits (Lower/Upper):	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available

Decomposition temperature: No data available
Self-accelerating decomposition temperature: No data available **pH:** 7.0-9.0 (20°C)
Dynamic viscosity: No data available
Viscosity (coefficient of viscosity): No data available
Solubility:
 [water] Dissolves in water
 [other solvent] No data available
Octanol/water partition coefficient: No data available
Vapor pressure: No data available
Vapor density: No data available
Volatile organic compounds: No data available
Evaporation rate: No data available
Density/Relative density: No data available
Relative gas density (air=1): No data available
Relative density of the vapor/air-mixture at 20°C (air = 1): No data available
Critical temperature: No data available
Particle characteristics: No data available
Other data: No data available

SECTION 10: Stability and reactivity

Reactivity: No data available
Chemical stability: Stable under recommended storage and usage conditions.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity (Dimethyl sulfoxide):

Oral LD50: LD50 Oral-Rat-14,500 mg/kg

Dermal LD50: LD50 Dermal-Rat-40,000 mg/kg

Inhalation LD50: LD50 Inhalation-Rat->5,330 mg/m³ (5.33 mg/L)

(Risk Assessment vol. 13, Ministry of the Environment, Government of Japan, 2015)

Local effects: No data available
Sensitization: No data available
Germ cell mutagenicity: No data available
Carcinogenicity: No data available
Teratogenicity: No data available
Reproductive toxicity: No data available

Specific target organ toxicity (single exposure): Category 2, Respiratory (SIDS, 2008)

Specific target organ toxicity (repeat exposure): No data available

Aspiration hazard: No data available

SECTION 12: Ecological information

Ecotoxicity

Aquatic toxicity (Dimethyl sulfoxide):

Crustacean EC50: EC50=6830 mg/L/24hr

(Risk Assessment vol. 13, Ministry of the Environment, Government of Japan, 2015)

Solubility in water:

(Dimethyl sulfoxide)

Mixing (ICSC, 2000)

Persistence/Degradability: No data available

Bioaccumulation:

(Dimethyl sulfoxide)

log Pow=-1.35 (calculated) (ICSC, 2000)

Mobility in soil: No data available

Ozone depleting substances: No data available

SECTION 13: Disposal considerations

Waste treatment

Dispose according to local public and other applicable regulations.

SECTION 14: Transport information

UN number: Not applicable

UN classification: Not applicable

SECTION 15: Regulatory information

Safety, health and environmental regulations or laws specific to the product

Poisonous and Deleterious Substances Control Law: Not applicable

Industrial Safety and Health Law: Products not applicable as organic solvents

Law for promotion of Chemical Management (Pollutant Release and Transfer Register Law):
Not applicable

Fire Service Law: Not applicable

Ship Safety Law (Regulations for the Carriage and Storage of Dangerous Goods in Ship):

Not applicable

Civil Aeronautics Law:

Not applicable

SECTION 16: Other information

References

Globally Harmonized System of classification and labeling of chemicals, (7th revised edition, 2017), UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN
Classification, labeling and packaging of substances and mixtures (Table3 ECNO6182012)
2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2020 TLVs and BEIs. (ACGIH)
<http://monographs.iarc.fr/ENG/Classification/index.php>
JIS Z 7252 (2019)
JIS Z 7253 (2019)
2019 Recommendation for allowable concentrations (Japan Society for Occupational Health)
Supplier's data/information

Responsibilities

This data sheet was prepared based on the present state of our knowledge, and the information may be supplemented or revised if newer information becomes available.

This data sheet was prepared for the purpose of providing information and does not guarantee with regarding to the descriptions.