Issue Date: 16/12/2016
Revision Date: 01/04/2025

SAFETY DATA SHEET

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

Product Name: HSC-BANKER GMP grade

Product Code: 13929

Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Research reagents

Restrictions on use: Use for purposes other than those recommended is prohibited.

Details of the supplier of the safety data sheet

Company: ZENOGEN PHARMA CO., LTD.
1-1 Tairanoue, Sasagawa, Asaka-machi, Koriyama City,
Fukushima 963-0196, Japan

Department in charge: Pharmaceutical&technology Business Division

Telephone: +81-24-947-8503

Fax: +81-24-947-8507

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:

Signal word Warning

Hazard 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.

First aid: IF exposed or concerned, get medical attention.

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

Specific hazards: Wash contaminated areas thoroughly after handling.
Do not breathe mist/vapours.

SECTION 3: Composition/information on ingredients

Uniform product or mixture: Mixture

Product composition:

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

Note: Including others and pH adjusters

Hazardous ingredients: No hazardous or harmful ingredients that fall under Poisonous and Deleterious Substances Control Law, Industrial Safety and Health Law, or PRTR.
Applicable ingredient corresponding to the GHS classification and the health hazards symbol: Dimethyl sulfoxide

SECTION 4: First aid measures

General measures: If exposed or concerned, get medical attention.

If inhaled: If breathed in, move person into fresh air. Keep calm and warm. Consult a physician immediately.

In case of skin (or hair) contact: Wash with plenty of water and soap.
If skin irritation or rash occurs, get medical advice or treatment.

In case of eye contact: Immediately flush eyes with running water. Consult a physician immediately.

If swallowed: If conscious, give one to two glasses of water or milk. Never give anything by mouth to an unconscious person.

SECTION 5: Firefighting measures

Extinguishing media: Suitable extinguishing agent

Use 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

Unique extinguishing method:
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.

Special protective equipment and precautions 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, protective equipment and emergency procedures:

Do not allow anyone other than those involved to approach.

Provide adequate ventilation until collection is complete.

Environmental precautions: Prevent spilled material from entering sewers, drains and low-lying areas.

Methods and material for containment and cleaning up:

Fire is strictly prohibited. Absorb the leaked liquid with a waste cloth, dust, cloth and collect it in an empty container, and then wash it away with a large amount of water.

Always wear protective glasses when working.

Do not work downwind.

SECTION 7: Handling and storage

Handling

Technical countermeasures（Handler exposure protection）:

Do not inhale dust/fume/gas/mist.

Wear proper protective equipment to avoid inhalation and prevent contact with eyes, skin, and clothing.

Storage:

Conditions for safe storage: 2～8 ℃

SECTION 8: Exposure controls/personal protection

Control parameters

Control concentration and concentration standard value: Not configured

Permissive concentration

Japan Society for Occupational Health: Not configured

ACGIH: Not configured

Exposure Prevention

Facility control: Ensure adequate ventilation, especially in confined areas.

Protective equipment

Respiratory protection: Wear respirators as appropriate.

Hand protection: Wear protective gloves as appropriate.

Eye protection: Wear safety glasses as appropriate.

Skin and Body protection: Wear protective clothing as appropriate.

Hygiene measures: Wash contaminated areas thoroughly after handling.
Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Form: Liquid

Color: Clear and colorless

Odor: Slight characteristic odor

Odor threshold: No data available

Melting/Freezing point: No data available

Boiling/Initial boiling point: No data available

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: 7.0～9.2 (20℃)

Dynamic viscosity: No data available

Viscosity (coefficient of viscosity): No data available

Solubility

water: No data available

solvent: No data available

Octanol/water partition coefficient: No data available

Vapor pressure: No data available

Vapor density: 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

Particle characteristics: No data available

Critical temperature: No data available

Evaporation rate: No data available

Volatile organic compounds: No data available

Other data: No data available

SECTION 10: Stability and reactivity

Reactivity: No data available

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

[Component data]

[NITE-CHRIP]

(Dimethyl sulfoxide)

Oral LD50: rat LD50=14500mg/kg (NITE)

Skin LD50: rat LD50=40000 mg/kg (NITE)

Inhalation LD50: mist: rat LC50: > 5330mg/m^3 (4 hours) (NITE)

Local effects:

Skin corrosive / irritation: No data available

Serious eyes damage / Eyes irritation: No data available

Respiratory organs sensitization / Skin 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);

[Product]

Category 2, May cause damage to organs

[Component data]

[NITE-CHRIP]

(Dimethyl sulfoxide)

Category 2, Respiratory (NITE)

Specific target organ toxicity (repeat); No data available

Aspiration hazard: No data available

SECTION 12: Ecological information

Eco toxicity

[Component data]

Aquatic environmental toxicity (acute)

[NITE-CHRIP]

(Dimethyl sulfoxide)

Crustacean EC50: EC50=6830 mg/L/24hr (NITE)

Solubility in water (Dimethyl sulfoxide): Mixing (ICSC, 2000)

Persistence/Degradability: No data available

Biological concentration

[NITE-CHRIP]

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

Mobility in soil: No data available

Hazardous to the ozone layer: No data available

SECTION 13: Disposal considerations

Information for safe and environmentally desirable disposal/recycling of chemicals contaminated container and packaging

Waste treatment methods

Avoid release to the environment

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

SECTION 14: Transport information

UN number: Not applicable

UN classification: Not applicable

Marine pollutant: Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code: Not applicable

Ship Safety Law: Not applicable

Civil Aeronautics Law: 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: Not applicable

Ordinance on Prevention of Organic Solvent Poisoning: Not applicable

Chemicals causing skin problems (Section 594-2): Dimethyl sulfoxide

PRTR: Not applicable

Fire Service Law: Not applicable

Specified Chemical Substances, monitoring chemicals, Priority Assessment Chemical Substances based on the Japan JCSCL Japanese Chemical Substances Control Law: Not applicable

Pharmaceuticals and Medical Devices Law: Not applicable

Applicable Laws and Regulation:

Pharmaceutical and Medical Device Act: Not applicable

SECTION 16: Other information

References

Globally Harmonized System of classification and labeling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 23th edit., 2023 UN

IMDG Code, 2020 Edition (Incorporating Amendment 40-20)

IATA Dangerous Goods Regulations 64th edit (2023)

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2025 TLVs and BEIs. (ACGIH)

Notification 0111, Article No. 1 of the Director of Chemical Substances Division, Safety and Health Department, Labor Standards Bureau, Ministry of Health, Labor and Welfare, Japan, 11, Jan. 2022.

Supplier's data/information

Responsibilities

This description is based on materials and information data available at this time, and may be revised according to new knowledge. The precautions are intended for normal handling, and in the case of special handling, please use after implementing sufficient safety measures. The calculation basis for the GHS classifications described here is the current data published in Japan (NITE 2023).