

SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision Date 10-May-2022
 Version 1

Section 1: PRODUCT AND COMPANY IDENTIFICATION

| | |
|---------------------|----------------------------------|
| Product name | Bovine insulin standard solution |
| Product code | ASIN-018, FFWK : 635-13523 |

| | |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manufacturer | FUJIFILM Wako Shibayagi Corporation 1062-1, Ishihara, Shibukawa, Gunma, Japan Telephone number: +81-279-25-0279 Fax number: +81-279-23-0313 |
| Supplier | FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-2029 |
| Emergency telephone number | +81-279-25-0279 |
| Recommended uses and restrictions on use | For research use only |

Section 2: HAZARDS IDENTIFICATION

GHS classification**Classification of the substance or mixture**

Skin sensitization Category 1

Pictograms

Signal word Warning

Hazard statements

H317 - May cause an allergic skin reaction

Precautionary statements-(Prevention)

- Avoid breathing dust/fume/gas/mist/vapors/spray
- Contaminated work clothing should not be allowed out of the workplace
- Protective gloves

Precautionary statements-(Response)

- IF ON SKIN: Wash with plenty of soap and water
- If skin irritation or rash occurs: Get medical advice/attention
- Wash contaminated clothing before reuse.

Precautionary statements-(Storage)

- Not applicable

Precautionary statements-(Disposal)

- Dispose of contents/container to an approved waste disposal plant.

Others**Other hazards** Not available**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS****Single Substance or Mixture** mixtures

| Chemical Name | Weight-% | Molecular weight | ENCS | ISHL No. | CAS RN |
|----------------------------------|----------|------------------|------|----------|--------|
| Bovine insulin standard solution | - | N/A | N/A | N/A | N/A |

Impurities and/or Additives : Not applicable
Hazardous Component Polyoxyethylene (20) Sorbitan Monolaurate <1 %
 2-Methyl-2H-isothiazol-3-one <0.2 %

Section 4: FIRST AID MEASURES**Inhalation**

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

Skin contact

Wash off immediately with 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 rinsing. 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.

Protection of first-aiders

Use personal protective equipment as required.

Section 5: FIRE FIGHTING MEASURES**Suitable extinguishing media**Water spray (fog), Carbon dioxide (CO₂), Foam, Extinguishing powder, Sand**Unsuitable extinguishing media**

No information available

Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Special extinguishing method

No information available

Special protective actions for fire-fighters

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

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 equipments 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 contaminant 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**Technical measures**

Use with local exhaust ventilation.

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. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

Safety handling precautions

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Storage**Safe storage conditions**

Storage conditions Store away from sunlight in a cool (2°C~8°C) well-ventilated dry place.

Safe packaging material No information available

Incompatible substances No information available

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

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.

Exposure limits

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

Personal protective equipment

Respiratory protection Protective mask

Hand protection Protection gloves

Eye protection protective eyeglasses or chemical safety goggles

Skin and body protection Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form

Appearance

Liquid

Odor

No data available

Melting point/freezing point

No data available

Boiling point, initial boiling point and boiling range

No data available

Flammability

No data available

Evaporation rate:

No data available

Flammability (solid, gas):

No data available

Upper/lower flammability or explosive limits

| | |
|--------------------------------------------------|-------------------|
| Upper : | No data available |
| Lower : | No data available |
| Flash point | No data available |
| Auto-ignition temperature: | No data available |
| Decomposition temperature: | No data available |
| pH | No data available |
| Viscosity (coefficient of viscosity) | No data available |
| Dynamic viscosity | No data available |
| Solubilities | No data available |
| n-Octanol/water partition coefficient: (log Pow) | No data available |
| Vapour pressure | No data available |
| Specific Gravity / Relative density | No data available |
| Vapour density | No data available |
| Particle characteristics | No data available |

Section 10: STABILITY AND REACTIVITY

Stability

| | |
|--------------------|----------------------------------------------|
| Reactivity | No data available |
| Chemical stability | Stable under recommended storage conditions. |

Hazardous reactions

None under normal processing

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 (NO_x), Phosphorus oxide

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-----------------------------------------|----------------------------------------|--------------------|---------------------|
| Poly (oxyethylene) sorbitan monolaurate | 37000 mg/kg (Rat) 36700 µL/kg (Rat) | N/A | N/A |
| 2-Methyl-2H-isothiazol-3-one | 120 mg/kg (Rat) | 200 mg/kg (Rabbit) | 0.11 mg/L (Rat) 4 h |

| | |
|-----------------------------------|-------------------|
| Skin irritation/corrosion | No data available |
| Serious eye damage/ irritation | No data available |
| Respiratory 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

Ecotoxicity

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|---------------|----------------------|------|-----------|
| | | | |

| | | | |
|------------------------------|-----|-------------------------------------------------|-------------------------------------------|
| 2-Methyl-2H-isothiazol-3-one | N/A | LC50: <i>Oncorhynchus mykiss</i> 0.07 mg/L, 96h | EC50: <i>Daphnia magna</i> 0.18 mg/L, 48h |
|------------------------------|-----|-------------------------------------------------|-------------------------------------------|

| | |
|--------------------------------------|--------------------------|
| Other data | No data available |
| Persistence and degradability | No information available |
| Bioaccumulative potential | No information available |
| Mobility in soil | No information available |
| Hazard to the ozone layer | No information available |
| Mobility | |

Section 13: DISPOSAL CONSIDERATIONS

Waste from residues

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

Contaminated container and contaminated packaging

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

Section 14: TRANSPORT INFORMATION

| | |
|--------------------------------------------------------------------------|--------------------------|
| ADR/RID | Not regulated |
| UN number | - |
| Proper shipping name: | |
| UN classification | |
| Subsidiary hazard class | |
| Packing group | |
| Marine pollutant | Not applicable |
| IMDG | Not regulated |
| UN number | - |
| Proper shipping name: | |
| UN classification | |
| Subsidiary hazard class | |
| Packing group | |
| Marine pollutant (Sea) | Not applicable |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | No information available |
| IATA | Not regulated |
| UN number | - |
| Proper shipping name: | |
| UN classification | |
| Subsidiary hazard class | |
| Packing group | |
| Environmentally Hazardous Substance | Not applicable |

Section 15: REGULATORY INFORMATION

International Inventories

| | |
|---------------|---|
| EINECS/ELINCS | - |
| TSCA | - |

Japanese regulations

| | |
|------------------|----------------|
| Fire Service Act | Not applicable |
|------------------|----------------|

| | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Poisonous and Deleterious Substances Control Law | Not applicable |
| Industrial Safety and Health Act | Not applicable |
| Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc | Priority Assessment Chemical Substances (Law Article 2, Para.5) |
| Regulations for the carriage and storage of dangerous goods in ship | Not applicable |
| Civil Aeronautics Law | Not applicable |
| Pollutant Release and Transfer Register Law | 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
 Japan Industrial Safety and Health Association GHS Model SDS
 Dictionary of Synthetic Organic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.
 etc

Disclaimer

This SDS is according to JIS Z 7253: 2019. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. GHS Classification is according to JIS Z7252(2019). *JIS: Japanese Industrial Standards

End of Safety Data Sheet