



SAFETY DATA SHEET (SDS)

Krishzyme PNGase-F (glycerol-free), recombinant Krishzyme PNGase-F, recombinant Krishzyme Swift PNGase-F, Recombinant

This Safety Data Sheet applies to Krishzyme PNGase-F (glycerol-free), recombinant; Krishzyme PNGase-F, recombinant and Krishzyme Swift PNGase-F, recombinant supplied by Krishgen Biosystems Private Limited. It covers the deglycosylation enzyme as supplied. The product is a liquid / lyophilized recombinant enzyme preparation that does not contain hazardous preservatives or hazardous components above classification thresholds.

SECTION 1: Identification

Product Name: Krishzyme PNGase-F (glycerol-free), recombinant; Krishzyme PNGase-F, recombinant;
Product Type: and Krishzyme Swift PNGase-F,
Recombinant Recombinant enzyme preparation (Peptide-N4-(N-acetyl- β -glucosaminyl) asparagine amidase, PNGase F; EC 3.5.1.52), lyophilized, produced in *E. coli*.
Recommended Use: Enzymatic release of N-linked glycans from glycoproteins (deglycosylation) for glycan and glycoprotein analysis.
Restrictions on use: For Research Use Only (RUO), for *in vitro* use only. Not for diagnostic, therapeutic or *in vivo* use.

Supplier/Manufacturer: Krishgen Biosystems Private Limited

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SECTION 2: Hazard(s) Identification

GHS Classification: Not classified as hazardous according to GHS criteria (EU CLP Regulation (EC) No. 1272/2008; OSHA HazCom 2012).

Label Elements: None

Signal Word: None

Hazard Pictograms: None required

Hazard Statements: None required

Other Hazards:

- Product contains a recombinant protein (enzyme).
- Possibility of allergic response arising from prolonged and/or repeated exposure in sensitive individuals.
- Avoid inhalation of powder when opening the vial and reconstituting.
- Not for ingestion or injection. Avoid contact with skin, eyes and mucous membranes.

SECTION 3: Composition/Information on Ingredients

Mixture Description: Lyophilized recombinant enzyme. After reconstitution with distilled water, the product is a solution in 20 mM Tris-HCl, 50 mM NaCl, pH 7.5.

Components:

- Peptide-N-Glycosidase F (PNGase F), recombinant, *E. coli*-expressed (CAS No. 83534-39-1):
Proprietary concentration; non-hazardous.
- Tris-HCl (CAS No. 1185-53-1): 20 mM after reconstitution; non-hazardous at supplied concentration.
- Sodium chloride (CAS No. 7647-14-5): 50 mM after reconstitution; non-hazardous at supplied concentration.

No components are present that are classified as hazardous at or above the applicable GHS concentration thresholds.



SECTION 4: First-Aid Measures

General Advice:	Remove from exposure. If in doubt, seek medical advice. Show this SDS to medical personnel if required.
Inhalation:	Move to a well-ventilated area and clear nose and throat. Seek medical advice if symptoms persist.
Skin Contact:	Wash with soap and water. Remove contaminated clothing.
Eye Contact:	Irrigate with plenty of water for several minutes. Remove contact lenses if present and easy to do.
Ingestion:	Rinse mouth and drink plenty of water. Do NOT induce vomiting. Seek medical attention.
Important Symptoms/Effects: Possible allergic response on prolonged or repeated exposure in sensitive individuals.	

SECTION 5: Fire-Fighting Measures

Suitable Extinguishing Media:	Water spray, dry chemical powder or appropriate foam according to surrounding fire conditions.
Specific Hazards:	Product is not combustible.
Hazardous Combustion Products:	May produce carbon oxides and nitrogen oxides if involved in a fire.
Protective Equipment for Firefighters:	Standard protective equipment and self-contained breathing apparatus if necessary.

SECTION 6: Accidental Release Measures

Personal Precautions:	Wear laboratory gloves, lab coat and safety spectacles. Avoid raising dust from spilled powder.
Environmental Precautions:	Avoid large-scale release into the environment.
Methods for Cleanup:	Wipe up spilled powder with a damp absorbent pad, or absorb reconstituted solution with inert material (paper towels, absorbent pads). Wash spill site with copious amounts of water.

SECTION 7: Handling and Storage

Handling:	Handle in accordance with Good Laboratory Practice. Do not eat, drink, or smoke while handling. Do not pipette by mouth.
Storage:	Lyophilized product is stable at room temperature. After reconstitution, store at 4°C to -20°C. Avoid multiple freeze-thaw cycles.
Incompatible Materials:	Strong oxidizing agents.

SECTION 8: Exposure Controls/Personal Protection

Control Parameters:	No occupational exposure limits established for this product.
Engineering Controls:	Standard laboratory ventilation.

Personal Protective Equipment:

- Eye protection: Safety spectacles
- Skin protection: Protective gloves and laboratory coat
- Respiratory protection: Not normally required under standard laboratory conditions
- Hygiene Measures: Wash hands thoroughly after handling.

SECTION 9: Physical and Chemical Properties

Appearance:	Dry white powder (lyophilized). Clear, colourless solution after reconstitution.
Odor:	Odorless.
pH:	7.5 (after reconstitution).
Melting/Freezing Point:	Not determined.
Boiling Point:	Not applicable (powder); ~100°C after reconstitution (aqueous).
Flash Point:	Not applicable.
Flammability:	Not combustible.
Solubility:	Soluble in water.



SECTION 10: Stability and Reactivity

Reactivity:	No hazardous reactions expected under normal conditions.
Chemical Stability:	Stable when stored as recommended.
Possibility of Hazardous Reactions:	None known.
Conditions to Avoid:	Repeated freeze-thaw cycles of reconstituted product, excessive heat, contamination.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decomposition Products:	None expected under normal conditions.

SECTION 11: Toxicological Information

Likely routes of exposure:	Inhalation (powder), skin contact, eye contact, ingestion.
Acute toxicity:	Not classified as toxic. Toxicological properties have not been fully investigated.
Skin corrosion/irritation:	Not classified.
Serious eye damage/irritation:	Not classified.
Sensitization:	Possibility of allergic response from prolonged and/or repeated exposure in sensitive individuals.
Carcinogenicity, mutagenicity, reproductive toxicity:	Not investigated. No components classified at supplied concentrations.

SECTION 12: Ecological Information

Ecotoxicity:	Data not available. Not expected to be hazardous to the environment in small laboratory quantities.
Persistence and Degradability:	Not determined; protein component is expected to be biodegradable.
Bioaccumulative Potential:	Not expected.
Mobility in Soil:	Not determined.
Other Adverse Effects:	None known.

SECTION 13: Disposal Considerations

No special requirements. Dispose of unused product and contaminated materials according to local laboratory and biomedical waste regulations. Material used with biological samples should be disposed of as biomedical waste.

SECTION 14: Transport Information

UN Number:	Not regulated.
UN Proper Shipping Name:	Not applicable.
Transport Hazard Class(es):	Not applicable.
Packing Group:	Not applicable.
Environmental Hazards:	Not applicable.
Special Precautions:	Ship as per recommended temperature. Ensure containers are tightly closed and protected from breakage during transport.

SECTION 15: Regulatory Information

This SDS is prepared in accordance with EU REACH Annex II (Regulation (EU) 2020/878), EU CLP (EC No. 1272/2008), US OSHA HazCom 2012, Japan JIS Z 7253:2019 and Korean K-OSHA GHS requirements. Product is not classified as hazardous and is intended for laboratory research use only (RUO). Users must ensure compliance with local, regional, and national regulations.

(Declaration for Japan & South Korea)

Japan – METI (GHS / ISHL / PRTR): Classification is based on the GHS criteria adopted in JIS Z 7253:2019. Components are not listed as Class I or Class II designated substances under the Japanese PRTR Law at the supplied concentrations, and are not listed under the Poisonous and Deleterious Substances Control Act (PDSCL). Local workplace labelling and handling must follow employer-specific ISHL obligations.



South Korea – MoEL / K-OSHA (K-REACH / GHS): Classification follows Korean GHS criteria aligned with the UN GHS system. This product is supplied as a mixture for laboratory research use; components are present below registration or notification thresholds, or qualify for exemptions applicable to R&D / laboratory reagents. Importers are responsible for confirming substance registration status under K-REACH where applicable.

SECTION 16: Other Information

Revision: 1.0

Revision date: 14th Oct 2026

Prepared by: Quality Assurance – Krishgen Biosystems Private Limited

Disclaimer: The information provided in this SDS is based on current knowledge and is intended as guidance for safe handling, storage, and disposal. It does not claim to be all-inclusive. Final determination of the suitability of any material is the sole responsibility of the user. Krishgen Biosystems Private Limited makes no warranty, expressed or implied, and assumes no liability for damage resulting from handling or contact with the product or from its misuse.

Abbreviations and Acronyms

- CAS: Chemical Abstracts Service.
- GHS: Globally Harmonized System.
- K-OSHA GHS: Korea Occupational Safety and Health Agency.
- K-REACH: Act on the Registration and Evaluation of Chemicals (Korea).
- MoEL: Ministry of Employment and Labor (Korea).
- PDSCL: Poisonous and Deleterious Substances Control Act.
- ISHL: Industrial Safety and Health Law.
- PNGase F: Peptide-N-Glycosidase F.
- RUO: Research Use Only.

References

1. EU REACH Annex II (Regulation (EU) 2020/878), EU CLP (EC No. 1272/2008), US OSHA HazCom 2012, Japan JIS Z 7253:2019.
2. Korean K-OSHA GHS.
3. Occupational Safety and Health Act (OSHA), Republic of Korea.
4. K-REACH (Act on the Registration and Evaluation of Chemicals).
5. MoEL Notice on Classification and Labelling of Chemicals.