

Material Safety Data Sheet
Version No.: 0(Rev. date : 2021-07-12)**Sniper Cas9 protein**

1. Product and Company Information

- A. Product Name : Sniper Cas9 protein
- B. Recommended Use : For Research Use Only
- C. Supply Information :
- Company : Bioneer
 - Address : 8-11 Munpyeongseo-ro, Daedeok-gu, Daejeon 34302, Republic of Korea
 - Emergency telephone number : +82-42-930-8777

2. Product and Company Information

- A. Risk-Hazard Classification : Acute toxicity classification : Class 4
- B. Caution Items Including Preventative measures
- Pictogram : No Information
 - Signal word : No Information
 - Hazard statement(s) : No Information
 - Precautionary statements
 - Prevention : No Information
 - Response : No Information
 - Storage : No Information
 - Disposal : No Information
- C. Other Risks-Hazards Not Included in Risk-Hazard Classification (NFPA) : No information.

3. Composition/Information on ingredient

Chemical name	Synonyms	CAS No.	Weight(%)
Glycerine	Glycerol	56-81-5	30-60
Sodium Chloride		7647-14-5	1-5

Tris-HCl	1185-53-1	0.1-1
Dithiothreitol	3483-12-3	<0.1
Ethylenediamine tetra	60-00-4	<0.1

4. First Aid Measure

- A. Upon Eye contact : Rinse thoroughly with plenty of water for at least 20 minutes.
 - B. Upon Skin Contact : Rinse thoroughly with plenty of water for at least 20 minutes.
 - C. Upon Inhalation: Seek medical attention if exposure or contact is suspected.
 - D. Upon Ingestion : Seek medical attention if exposure or contact is suspected.
 - E. The most important acute and delayed symptoms/effects : No information.
 - F. Notes to Physician : No Information..
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5. Fire-fighting Measures

- A. Proper(Improper) Extinguishing Material : To extinguish fire related to this material, use alcohol foam , dioxide or water spraying.
 - B. Specific Hazards from Chemicals : No Information.
 - C. Firefighting Protection and Precautions : Rescuers must wear appropriate protection.
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6. Accidental Release Measures

- A. Personal precautions : Immediately wipe spills and follow prevention measures.
 - B. Environmental precautions : Prevent introduction into waterways, sewers, basements and sealed spaces.
 - C. Methods and materials for containment and cleaning up : Absorb liquids and clean contaminated area with detergent and water.
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7. Handling and Storage

- A. Handling Precautions : Be aware of conditions and chemicals to avoid.
 - B. Storage Precautions : Keep -20 °C.
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8. Exposure Controls / Personal Protection

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- A. Chemical Exposure Standards, Biological Exposure Standards Etc. : No information.
- B. Proper Physical Management : No Information.
- C. Personal Protection
- Respiratory Protection : wear respiratory mask approved by KOSHA(Korea Occupation Safety Health Agency)
 - Eye Protection : wear Chemical Safety protective goggle or glasses approved by KOSHA(Korea Occupation Safety Health Agency)
 - Hand Protection : wear Chemical Safety gloves approved by KOSHA(Korea Occupation Safety Health Agency)
 - Body Protection : wear protective clothes approved by KOSHA(Korea Occupation Safety Health Agency)
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9. Physical and Chemical Properties

- A. Appearance : Liquid, transparentness
- B. Odor : None.
- C. Odor threshold : No Information
- D. pH : No Information
- E. Melting point/Freezing point : No Information
- F. Initial boiling point/range : No Information
- G. Flash point : No Information
- H. Evaporation rate : No Information
- I. Flammability(Solid, Liquid) : No Information
- J. Flammability Limits upper/lower : No Information
- K. Vapor pressure : No Information
- L. Solubility : No Information
- M. Vapor density : No Information
- N. Viscosity : No Information
- O. n octanol/water partition coefficient : No Information
- P. Autoignition temperature : No Information
- Q. Decomposition temperature : No Information
- R. Specific gravity : No Information
- S. Molecular weight : No Information
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10. Stability and Reactivity

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- A. Stability : Stable under recommended storage conditions.
 - B. Possibility of harmful response : No Information.
 - C. Conditions to avoid (electric discharge, impact, vibration etc) : Ignition source of Heat, spark, flame
 - D. Material to avoid : Combustible materials.
 - E. Hazardous Decomposition Products : No Information.
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11. Toxicological Information

- A. Probable Exposure Path
 - Respiratory : can be harmful if inhaled.
 - Ingestion : can be harmful if swallowed.
 - Eye/Skin : Harmful in contact with skin. Can be caused skin irritation.
 - B. Health Hazard Information
 - Acute Toxicity : No Information.
 - Skin corrosive or irritant : can be caused skin irritation.
 - Serious eye damage or irritant : can be caused eye irritation.
 - Respiratory Hypersensitivity : No Information.
 - Skin Hypersensitivity : No Information.
 - Carcinogenic Properties : No Information.
 - Reproductive Cell Mutation Properties : No Information.
 - Reproductive Toxicity : No Information
 - Target Organ Toxicity (Single Exposure) : No Information
 - Target Organ Toxicity (Repeat Exposure) : No Information
 - Inhalation Toxicity : No Information
 - C. Numerical measures of toxicity(Acute toxicity estimates etc) : No Information
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12. Ecological Information

- A. Biological Toxicity : No Information
 - B. Persistency and Degradability : No Information
 - C. Bioconcentration : No Information
 - D. Soil Mobility : No Information
 - E. Other Toxic Effects : No Information
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13. Disposal Considerations

- A. Waste disposal method : Dispose of material in accordance with formally disposal company.
 - B. Disposal Considerations : Dispose contents and vessel in accordance with regulation by the waste disposal law.
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14. Transport Information

- A. Not regulated in the meaning of transport regulations.

IMDG: Non-hazardous for sea freight.

ADR: Non-hazardous for road transport.

RID: Non-hazardous for rail transport.

ICAO/IATA: Non-hazardous for air transport.

- B. UN Number: Not applicable
 - C. UN Proper Shipping Name: Not applicable
 - D. Transport hazard class: Not applicable
 - E. Packing group: Not applicable
 - F. Marine pollutant: Not applicable
 - G. The special vehicle Safety measures: Not applicable
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15. Regulatory Information

This safety datasheet compiles with the requirements of Regulation (EC) No. 1272/2008

- A. Regulation by Industrial safety and health act: Not applicable
 - B. Regulation by chemicals control act: Not applicable
 - C. Regulation by Safety control of dangerous substance act: Not applicable
 - D. Regulation by the waste control act: Not applicable
 - E. Regulation by other domestic and foreign regulatory: Not information available
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16. Other References

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Company Policy or Disclaimer: Bioneer Corporation makes no warranty or representation to its completeness, accuracy or currency. This material is intended for use by persons with pertinent technical skills and at their discretion and risk. It is the responsibility of the user to determine the product's suitability for its intended use, the product's safe use, and the product's proper disposal. Disposal of hazardous material may be subject to federal, state or local laws or regulations.
