

**Material Safety Data Sheet**

Version No.: 2.0(Rev. date : 2023-12-04)

***AccuNanoBead™* Protein L Magnetic NanoBeads**

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**1. Product and Company Information**

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A. Product Name : *AccuNanoBead™* Protein L Magnetic NanoBeads

B. Recommended Use : For Research Use Only

C. Supply Information :

☐ Company : Bioneer Corporation☐ Address : 71, Techno 2-ro, Yuseong-gu, Daejeon, 34013, Republic of Korea☐ Emergency telephone number : +82-42-930-8777

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**2. Hazards Identification**

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A. Risk-Hazard Classification : Specific target organ toxicity (repeat exposure) : Class 2

B. Caution Items Including Preventative measures

☐ Pictogram☐ Signal word : Warning☐ Hazard statement(s) : H373 May cause damage to (specific target organs) under chronic or repeated exposure☐ Precautionary statements :

Prevention : P260 Do not breathe dust/fume/gas/mist/vapours/spray

Response : P314 Get medical advice/attention if you feel unwell.

Storage : No Information

Disposal : P501 Dispose of contents/container to an approved waste disposal plant.

C. Other Risks-Hazards Not Included in Risk-Hazard Classification (NFPA) : No information.

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**3. Composition/Information on Ingredient**

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Chemical name	Synonyms	CAS No.	Weight(%)
FERRIC-FERROUS OXIDE	BLACK IRON OXIDE	1317-61-9	90~100
Silicon Dioxide	SILICA	7631-86-9	0~10
Protein L	Protein L	N/A	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.

#### 5. Fire-fighting Measures

- A. Proper(Improper) Extinguishing Material : Nonflammable product.
- B. Specific Hazards from Chemicals : No Information.
- C. Firefighting Protection and Precautions : Rescuers must wear appropriate protection.

#### 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 ethanol.

#### 7. Handling and Storage

- A. Handling Precautions : Keep container tightly closed, Be aware of conditions and chemicals to avoid.
- B. Storage Precautions : Keep refrigerated.

#### 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

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- A. Appearance : Black powder
- 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) : Nonflammable
- 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 : Strong acids.
  - E. Hazardous Decomposition Products : No Information.
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## 11. Toxicological Information

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- 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

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- 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

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- 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

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- 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

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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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