

Material Safety Data Sheet

Version No.: 1.0(Rev. date : 2025-12-09)

SpCas9 dead (D10A/H840A) protein

1. Product and company identification

- A. Product Name: SpCas9 dead (D10A/H840A) protein
- B. Recommended Use: For research and development use only.
Not for pharmaceutical, household, or any other uses.
- C. Supply Information
- Company: BIONEER
 - Address: BIONEER Global Center 71, Techno 2-ro, Yuseong-gu, Daejeon, 34013, Republic of Korea
 - Emergency telephone number: +82-1588-9788

2. Hazards identification

- A. Classification of the substance of mixture
GHS Classification
Not a hazardous substance or mixture.
- B. Label elements
- Hazard pictograms: N/A
 - Signal word: N/A
 - Hazard statements: N/A
 - Precautionary statements: N/A
- C. Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.
Hazards – Other hazards which do not result in classification – Hazard Risk
Not applicable

3. Composition/information on ingredients

Component	Synonyms	CAS. No.	Concentration(%)
Glycerine	Glycerol	56-81-5	30-60
Sodium Chloride	Sodium Chloride	7647-14-5	1-5
Tris-HCl		1185-53-1	0.1-1
Dithiothreitol	DTT	3483-12-3	<0.1

Ethylenediamine tetra

60-00-4

<0.1

4. First aid measures

A. Description of first aid measures

a. In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

b. In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

c. If inhaled

Remove person to fresh air and keep comfortable for breathing.

d. If swallowed

Call a poison center or a doctor if you feel unwell.

e. Other medical advice or treatment

Treat symptomatically.

B. Most important symptoms and effects, both acute and delayed

irritant effects

C. Indication of any immediate medical attention and special treatment needed

No information available.

5. Fire-fighting measures

A. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, dry powder, foam, carbon dioxide.

Unsuitable extinguishing media: No data available

B. Special hazards arising from the substance or mixture

No data available

C. Special protective equipment and precautions for fire-fighters

Protection during firefighting:

Do not attempt to take action without suitable protective equipment.

Self-contained breathing apparatus.

Complete protective clothing.

6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures

Ventilate spillage area.

Do not attempt to take action without suitable protective equipment.

Dispose of materials or solid residues at an authorized site.

B. Environmental precautions and protective procedures

Avoid release to the environment.

C. Methods and material for containment and cleaning up

Take up liquid spill into absorbent material.

7. Handling and storage

A. Precautions for safe handling

Precautions for safe handling

Ensure good ventilation of the work station.

Wear personal protective equipment.

Hygiene measures

Do not eat, drink or smoke when using this product.

Always wash hands after handling the product.

B. Conditions for safe storage

Storage conditions

Store in a well-ventilated place.

Refrigerated storage at -20 °C.

Do not use frost-free (auto-defrost) refrigerators for storage.

8. Exposure controls / personal protection

A. Occupational Exposure Limits

No data available

B. Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Environmental exposure controls: Avoid release to the environment.

C. Personal protection equipment

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment

Eye protection: Safety glasses

Hand protection: Protective gloves

Skin and body protection: Wear suitable protective clothing

9. Physical and chemical properties

- A. Appearance : Liquid, transparentness
- B. Odor : None
- C. Odor Threshold : No data available.
- D. pH : : No data available.
- E. Melting point : No data available.
- F. Initial boiling point : No data available.
- G. Flash point : No data available.
- H. Evaporation rate : No data available.
- I. Flammability : No data available.
- G. Lower explosion limit/Upper explosion limit : No data available.
- K. Vapor pressure : No data available.
- L. Water solubility : No data available.
- M. Relative vapor density : No data available.
- N. Density : No data available.
- O. Partition coefficient: n-octanol/water : No data available.
- P. Autoignition temperature : No data available.
- Q. Decomposition temperature : No data available.
- R. Viscosity : No data available.
- S. Molecular weight : No data available.

10. Stability and Reactivity

- A. Chemical stability and Possibility of hazardous reactions
 - The product is non-reactive under normal conditions of use, storage and transport.
 - Stable under normal conditions.
 - No dangerous reactions known under normal conditions of use.
 - B. Conditions to avoid: Ignition source of Heat, spark, flame
 - C. Incompatible materials : Combustible materials.
 - D. Hazardous decomposition products: No information available
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11. Toxicological information

A. Information on exposure routes

No data available

B. Health hazards

– mixture

Acute toxicity (oral): Not classified

Acute toxicity (dermal): Not classified

Acute toxicity (inhalation): Not classified

C. Further information: No data available

12. Ecological information

A. Exotoxicity :Not classified; hazardous constituents are present below the concentration limits.

B. Persistence and degradability :No data available

C. Bioaccumulative potential :No data available

D. Mobility in soil :No data available

E. Other adverse effects

Ozone: No data available

Other adverse effects: No additional information available

13. Disposal considerations

A. Disposal method

Dispose of contents/container in accordance with licensed collector's sorting instructions.

B. Disposal precaution

Dispose contents and vessel in accordance with regulation by the waste disposal law.

14. Transport information

UN RTDG	ADR	IMDG	IATA
A. UN number			
Not regulated for transport			
B. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
C. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
D. Packaging group			
Not applicable	Not applicable	Not applicable	Not applicable
E. Marine pollutant			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

F. Special precautions for user: No data available

15. Regulatory information

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

16. Other information

- A. List of references : Ministry of environment of KOREA, MSDS(Sima-Aldrich, Bioneer)
- B. Date of issue/revision
 - First issue date: 2023-09-01
 - Last revision date: 2025-12-09
- C. Version: 1

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