

Safety Data Sheet



Product Name: Purified CRISPR-Cas9 Protein

Version: 1.0

Revision Date: 01/08/2020

Section 1: Identification of the substance and of the company/undertaking

Identification of the substance

Product name: Purified CRISPR-Cas9 Protein

Related product codes (SKU):

04-1100

04-1500

04-2100

04-2500

Company/Undertaking Identification

TriAltus Bioscience

1500 1st Ave N

Box 92

Birmingham, AL 35203

1-205-453-8242

For research use only. Not for diagnostic or therapeutic use.

Section 2: Hazards Identification

2.1 Classification of the substance or mixture

Signal Word

None

Hazard Pictograms

None

Environmental Hazards

No information available.

Hazard Statements

H315 – Causes skin irritation

H319 – Causes serious eye irritation

H335 – May cause respiratory irritation

Precautionary Statements

Prevention

P202 – Do not handle until all safety precautions have been read and understood

P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P264 – Wash hands thoroughly after handling

P270 – Do not eat, drink or smoke when using this product

P280 – Wear protective gloves/protective clothing/eye protection/face protection

P281 – Use personal protective equipment as required

Response

P308 + P313 – If exposed or concerned: Get medical advice/attention

P302 + P352 – If on skin: wash with soap and water

P362 + P364 – Take off all contaminated clothing and wash it before reuse

P332 + P313 – If skin irritation occurs, get medical advice/attention

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 – If eye irritation persists, get medical advice/attention

Storage

P403 + P235 – Store in a well-ventilated place. Keep cool.

Disposal

P501 – Dispose of contents/container to an approved waste disposal plant

2.3 Other Hazards

The chemical, physical, and toxicological properties of Purified CRISPR-Cas9 Protein has not yet been thoroughly investigated. TriAltus recommends treating these products with care that is due to unknown chemicals.

Principle Routes of Exposure/Potential Health Effects

Eyes	May cause eye irritation with susceptible persons
Skin	May cause skin irritation in susceptible persons
Inhalation	May cause irritation of respiratory tract
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

Section 3: Composition/Information on Ingredients

3.1 Chemical characterization: Mixtures

Component	CAS-No	EINECS-No.	%	Classification
Tris	77-86-1	201-064-4	0.12	H315; H319; H335
Sodium Chloride	7647-14-5	231-598-3	1.46	
Glycerol	56-81-5	200-289-5	50	H315; H319; H335

Handle all chemicals with caution.

Section 4: First Aid Measures

4.1 Description of first aid measures

- Inhalation:** Provide fresh air. If feeling unwell, consult a physician.
- Skin Contact:** Wash off immediately with plenty of soap and water. If skin irritation occurs, consult a physician.
- Eye Contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- Ingestion:** Rinse mouth and drink water if conscious. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Irritations

4.3 Indications of any immediate medical attention and special treatment needed

No relevant information available.

Section 5: Firefighting Measures

5.1 Extinguishing media

- Suitable extinguishing media:** Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.
- Unsuitable extinguishing media:** No information available.

5.2 Special hazards arising from the substance or mixture

The chemical, physical, and toxicological properties of Purified CRISPR-Cas9 Protein have not yet been thoroughly investigated. TriAltus recommends treating these products with care that is due to unknown chemicals.

5.3 Advice for fire-fighters

Standard procedure for chemical fires.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Use personal protection equipment. Avoid dust formation. Avoid breathing vapors, mist, gas, or dust. See Section 8 for more detail.

6.2 Environmental Precautions

Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material.

6.4 Reference to other sections

See Section 8 for more information.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Use personal protective equipment as required. Keep containers, equipment, and workplace clean.

7.2 Conditions for safe storage, including any incompatibilities

Storage rooms and containers:	No special requirements.
Incompatible substances or mixtures:	Keep away from food and drink.
Consideration of other advice:	Keep containers tightly closed in a dry and well-ventilated place.
Recommended storage temperature:	-80°C

7.3 Specific end use(s)

Use as laboratory reagent. Scientific research and development.

Section 8: Exposure controls/personal protection

8.1 Exposure controls

Personal Protective Equipment	The usual precautions for handling chemicals should be observed. Avoid contact with eyes and skin. Wash hands before breaks and after work.
Respiratory protection	In case of insufficient ventilation, use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Hand protection	Wear suitable gloves.
Eye protection	Use safety goggles with side protection.
Skin and Body protection	Wear suitable protective clothing.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.
Environmental Exposure Controls	No environmental precautions required.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Form:	Liquid
Appearance:	Clear
Odor:	Odorless
Melting point:	No data available
Freezing point:	No data available
Flash point:	No data available
Evaporation rate:	No data available

Upper/lower explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	No data available
Water solubility:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

9.2 Other safety information

No further relevant information available.

Section 10: Stability and Reactivity

10.1 Reactivity

No known.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reaction has not been reported.

10.4 Conditions to avoid

Avoid close proximity to sources of ignition.

10.5 Incompatible Materials

No data available.

10.6 Hazardous Decomposition Products

No data available.

Section 11: Toxicological Information

11.1 Information of toxicological effects

Acute Toxicity

Product Information

No acute toxicity information is available for this product

Toxicologically Synergistic Products

No information available

Irritation

Tris (0.12%) may cause irritation to skin and eyes, but the concentration not sufficient for classification.

Respiratory or skin sensitization

No component is classified as a respiratory or skin sensitizer.

STOT – Single exposure

Tris (0.12%) may cause respiratory irritation, but the concentration does not warrant classification of the mixture.

STOT – Repeated exposure

The concentrations do not warrant classification of the mixture.

Principal Routes of Exposure/Potential Health Effects

Eyes	May cause eye irritation with susceptible persons.
Skin	May cause skin irritation in susceptible persons.
Inhalation	May cause irritation of respiratory tract.
Ingestion	No information available.
Carcinogenic effects	No information available.
Mutagenic effects	No information available.
Reproductive Toxicity	No information available.
Aspiration Hazard	No information available.
Developmental Effects	No information available.
Teratogenicity	No information available.

Section 12: Ecological Information

12.1 Toxicity

No relevant information available.

12.2 Persistence and Degradability

No relevant information available.

12.3 Bioaccumulative Potential

No relevant information available.

12.4 Mobility in Soil

No relevant information available.

12.5 Results of PBT- and vPvB-assessment

No relevant information available.

12.6 Other Adverse Effects

No relevant information available.

Section 13: Disposal Considerations

13.1 Waste Treatment Methods

Recommendation for product:

The disposal is regionally differently regulated, therefore dispose of in accordance with local regulations.

Contaminated packaging:
Dispose of as unused product.

Section 14: Transport Information

IATA

14.1 UN number	Not applicable.
14.2 UN proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	Not applicable.
14.6 Special precautions for user	No relevant information available.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No relevant information available.

Section 15: Regulatory Information

15.1 Safety, health, and environmental regulation specific for the substance or mixture

National regulations:

No relevant information available.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture.

Section 16: Other Information

The above information is based on our present-day knowledge. The information should not be taken as being all inclusive and is meant to be used only as a guide. It does not represent a legally valid contractual relationship. All materials and mixtures may present unknown hazards and should be used with caution.

End of SDS