

Recombinant NLS-SpCas9-NLS (Cas9) Nuclease Solution

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules And Regulations According To The Hazardous Products Regulation (February 11, 2015).
Date of Issue: 08/19/2022 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Name: Recombinant NLS-SpCas9-NLS (Cas9) Nuclease Solution
Product Code: PD1019

1.2. Recommended use of the chemical and restrictions on use

Identified Uses: For research use only.
Restricted Uses: Not intended for direct *in vivo* use or for direct clinical use as a drug, therapeutic, biologic or medical device.

1.3. Name, Address, and Telephone of the Responsible Party

Akron BioProducts LLC
6353 W Rogers Circle, Suite 2
Boca Raton, FL 33487
561-750-6120
www.akronbiotech.com
Email: info@akronbiotech.com

1.4. Emergency Telephone Number

Emergency Number: 561-750-6120

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Not a hazardous substance or mixture.

2.2. Label Elements

Not a hazardous substance or mixture.

2.3. Other Hazards

Not a hazardous substance or mixture.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No data available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable.

3.2. Mixture

This product contains no substances which are considered to be hazardous to health at their given concentrations.

Chemical Name	Common name and synonyms	Product Identifier (CAS-No)
Recombinant <i>Streptococcus pyogenes</i> Cas9 Nuclease	Cas9 Protein, SpCas9 endonuclease	N/A
Glycerol	N/A	56-81-5
Tris(hydroxymethyl)aminomethane hydrochloride	Tris Buffer	1185-53-1
Sodium Chloride	NaCl	7647-14-5
Ethylenediamine Tetraacetic Acid	EDTA, 3,6-Diazaoctanedioic acid	600-00-4

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SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice if necessary.

Skin Contact:

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Seek medical advice. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Obtain medical attention immediately.

Ingestion:

Wash out mouth with water provided person is conscious. Seek medical advice.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Not applicable.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Not applicable.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: No data available.

5.2. Special Hazards Arising From the Substance or Mixture

No data available.

5.3. Advice for Firefighters

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. See Section 8 for more detail.

6.2. Environmental Precautions

No special environmental precautions required.

6.3. Methods and Materials for Containment and Cleaning Up

Soak up liquid components with inert absorbent material.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Use appropriate personal protective equipment (PPE). Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and safety shower in work area. Wear protective gloves and clean body covering clothing.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Keep container tightly closed in a dry, well-ventilated place and at a temperature of -80°C.

7.3. Specific End Use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

The product contains no substances with occupational exposure limit values from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

8.2. Exposure Controls

Appropriate Engineering Controls:

No special engineering controls are anticipated to be required.

Personal Protective Equipment (PPE):

Hand Protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection:

Use face shield, chemical goggles or safety glasses tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin and Body Protection:

The type of protective equipment must be selected according to the concentration, amount of the hazardous substance at the specific workplace and appropriate risk assessment.

Respiratory Protection:

Respiratory protection is not required. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls:

No special environmental controls are anticipated to be required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Appearance	:	Clear to colorless liquid
Odor	:	Not available
Odor threshold	:	Not available
pH	:	Not available
Melting point/freezing point	:	Not available
Boiling point/boiling range	:	Not available
Flash point	:	Not available
Evaporation rate	:	Not available
Flammability (solid, gas)	:	Not available
Lower flammable limit	:	Not available
Upper flammable limit	:	Not available
Vapor pressure	:	Not available
Relative vapor density at 20°C	:	Not available
Relative density	:	Not available
Solubility	:	Not available
Partition coefficient: N-Octanol/Water	:	Not available
Auto-ignition temperature	:	Not available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Not applicable.

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10.2. Chemical Stability:

Stable under recommended handling and storage conditions (see Section 7).

10.3. Possibility of Hazardous Reactions:

No data available.

10.4. Conditions to Avoid:

Heat, flames, ignition sources and incompatibles.

10.5. Incompatible Materials:

Strong oxidizers.

10.6. Hazardous Decomposition Products:

Burning may produce carbon monoxide, carbon dioxide, and/or sulfur oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Ecotoxicity

No data available.

12.2. Persistence and Degradability

No data available.

12.3. Bioaccumulative Potential

No data available.

12.4. Mobility in Soil

No data available.

12.5. Other Adverse Effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Treatment of waste per local authority regulations. Empty containers may retain product residues. Avoid disposal of material into untreated sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional, national and local authority requirements.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1 Not classified as dangerous in the meaning of transport regulations.

UN number	: No data available
UN proper shipping name	: Not Regulated
Transport hazard class	: No data available
Packing group	: No data available
Environment Hazards	: No data available
Special precautions for user	: No data available
Transport in bulk	: No data available

SECTION 15: REGULATORY INFORMATION

SARA 302 Components

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Not applicable.

SARA 313 Components

Not applicable.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	:	No
Chronic Health Hazard	:	No
Fire Hazard	:	No
Sudden Release of Pressure Hazard	:	No
Reactive Hazard	:	No

State Right-to-Know Components

This product does not contain any chemical components subject to the State Right-to-Know Act.

California Prop. 65 Components

This product does not contain any chemical components subject to Proposition 65.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 8/19/2022

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR).

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Akron Biotechnology, LLC shall not be held liable for any damage resulting from handling or from contact with the above product.

NA GHS SDS 2015 (Can, US, Mex)