

SAFETY DATA SHEET

SureGuide gRNA Control Kit - 20 Reactions, Part Number 5190-7718

Section 1. Identification

Product identifier : SureGuide gRNA Control Kit - 20 Reactions, Part Number 5190-7718

Part no. (chemical kit) : 5190-7718

Part no. : Control DNA Target 5190-7536
Control gRNA 5190-7539

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : ☒ Analytical reagent.
☒ Control DNA Target 2 x 0.02 ml (20 µl 50 ng/ µl)
Control gRNA 0.01 ml (10 µl 1 µM)

Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture

Not classified.

GHS label elements

Signal word	: Control DNA Target Control gRNA	No signal word. No signal word.
Hazard statements	: Control DNA Target Control gRNA	No known significant effects or critical hazards. No known significant effects or critical hazards.
<u>Precautionary statements</u>		
Prevention	: Control DNA Target Control gRNA	Not applicable. Not applicable.
Response	: Control DNA Target Control gRNA	Not applicable. Not applicable.
Storage	: Control DNA Target Control gRNA	Not applicable. Not applicable.
Disposal	: Control DNA Target Control gRNA	Not applicable. Not applicable.
Supplemental label elements	: Control DNA Target Control gRNA	None known. None known.
Other hazards which do not result in classification	: Control DNA Target Control gRNA	None known. None known.


Section 3. Composition/information on ingredients

Substance/mixture : Control DNA Target Mixture
Control gRNA Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact	: Control DNA Target	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Control gRNA	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Control DNA Target	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Control gRNA	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: Control DNA Target	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Control gRNA	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:  Control DNA Target	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Control gRNA	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Control DNA Target Control gRNA	No known significant effects or critical hazards. No known significant effects or critical hazards.
Inhalation	: Control DNA Target Control gRNA	No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: Control DNA Target Control gRNA	No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: Control DNA Target Control gRNA	No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Control DNA Target Control gRNA	No specific data. No specific data.
Inhalation	: Control DNA Target Control gRNA	No specific data. No specific data.

Section 4. First-aid measures

Skin contact	: Control DNA Target Control gRNA	No specific data. No specific data.
Ingestion	: Control DNA Target Control gRNA	No specific data. No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	: Control DNA Target Control gRNA	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Control DNA Target Control gRNA	No specific treatment. No specific treatment.
Protection of first-aiders	: Control DNA Target Control gRNA	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	: Control DNA Target Control gRNA	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Control DNA Target Control gRNA	None known. None known.
Specific hazards arising from the chemical	: Control DNA Target Control gRNA	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: Control DNA Target Control gRNA	No specific data. No specific data.
Special protective actions for fire-fighters	: Control DNA Target Control gRNA	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Control DNA Target Control gRNA	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Control DNA Target	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
	Control gRNA	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders	: Control DNA Target	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Control gRNA	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Control DNA Target	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Control gRNA	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Methods for cleaning up	: Control DNA Target	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	Control gRNA	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Control DNA Target	Put on appropriate personal protective equipment (see Section 8).
	Control gRNA	Put on appropriate personal protective equipment (see Section 8).

Section 7. Handling and storage

Advice on general occupational hygiene

: Control DNA Target

Control gRNA

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Control DNA Target

Control gRNA

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.






Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	: Control DNA Target	Liquid.
	Control gRNA	Liquid.
Color	: Control DNA Target	Not available.
	Control gRNA	Not available.
Odor	: Control DNA Target	Not available.
	Control gRNA	Not available.
Odor threshold	: Control DNA Target	Not available.
	Control gRNA	Not available.
pH	: Control DNA Target	8
	Control gRNA	7
Melting point/freezing point	: Control DNA Target	0°C (32°F)
	Control gRNA	0°C (32°F)
Boiling point, initial boiling point, and boiling range	: Control DNA Target	100°C (212°F)
	Control gRNA	100°C (212°F)
Flash point	: Control DNA Target	Not available.
	Control gRNA	Not available.
Evaporation rate	: Control DNA Target	Not available.
	Control gRNA	Not available.
Flammability	: Control DNA Target	Not applicable.
	Control gRNA	Not applicable.
Lower and upper explosion limit/flammability limit	: Control DNA Target	Not available.
	Control gRNA	Not available.
Vapor pressure	:	

Section 9. Physical and chemical properties and safety characteristics

	Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
		mm Hg	kPa	Method	mm Hg	kPa	Method
	 Control DNA Target						
	water	17.5	2.3	-	92.258	12.3	-
	Control gRNA						
	water	17.5	2.3	-	92.258	12.3	-
Relative vapor density	: Control DNA Target	Not available.					
	: Control gRNA	Not available.					
Relative density	: Control DNA Target	Not available.					
	: Control gRNA	Not available.					
Solubility(ies)	: Media	Result					
	 Control DNA Target	Soluble					
	water						
	Control gRNA	Soluble					
	water						
Partition coefficient: n-octanol/water	:  Control DNA Target	Not applicable.					
	: Control gRNA	Not applicable.					
Auto-ignition temperature	:  Not available.						
Decomposition temperature	: Control DNA Target	Not available.					
	: Control gRNA	Not available.					
Viscosity	: Control DNA Target	Not available.					
	: Control gRNA	Not available.					
<u>Particle characteristics</u>							
Median particle size	:  Control DNA Target	Not applicable.					
	: Control gRNA	Not applicable.					

Section 10. Stability and reactivity

Reactivity	: Control DNA Target	No specific test data related to reactivity available for this product or its ingredients.
	: Control gRNA	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: Control DNA Target	The product is stable.
	: Control gRNA	The product is stable.
Possibility of hazardous reactions	: Control DNA Target	Under normal conditions of storage and use, hazardous reactions will not occur.
	: Control gRNA	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Control DNA Target	No specific data.
	: Control gRNA	No specific data.
Incompatible materials	: Control DNA Target	May react or be incompatible with oxidizing materials.
	: Control gRNA	May react or be incompatible with oxidizing materials.

Section 10. Stability and reactivity

Hazardous decomposition products : Control DNA Target

Control gRNA

Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Control DNA Target
Control gRNA

Not available.

Not available.

Potential acute health effects

Eye contact : Control DNA Target
Control gRNA

No known significant effects or critical hazards.
No known significant effects or critical hazards.

Inhalation : Control DNA Target
Control gRNA

No known significant effects or critical hazards.
No known significant effects or critical hazards.

Skin contact : Control DNA Target
Control gRNA

No known significant effects or critical hazards.
No known significant effects or critical hazards.

Ingestion : Control DNA Target
Control gRNA

No known significant effects or critical hazards.
No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Control DNA Target
Control gRNA

No specific data.
No specific data.

Section 11. Toxicological information

Inhalation	: Control DNA Target Control gRNA	No specific data. No specific data.
Skin contact	: Control DNA Target Control gRNA	No specific data. No specific data.
Ingestion	: Control DNA Target Control gRNA	No specific data. No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: Control DNA Target Control gRNA	No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: Control DNA Target Control gRNA	No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Control DNA Target Control gRNA	No known significant effects or critical hazards. No known significant effects or critical hazards.
Reproductive toxicity	: <input checked="" type="checkbox"/> Control DNA Target Control gRNA	No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

N/A

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. 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 local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

TDG / IMDG / IATA : Not regulated.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Canada : Not determined.

United States : All components are active or exempted.

Section 16. Other information

History

Date of issue/Date of revision : 06/30/2023

Date of previous issue : 06/16/2020

Version : 5

Section 16. Other information

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 HPR = Hazardous Products Regulations
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
Not classified.	

📌 Indicates information that has changed from previously issued version.

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