

SAFETY DATA SHEET



SureGuide GeCKO v2.0 Human Exome CRISPR Library, Part Number G7553A

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name	: SureGuide GeCKO v2.0 Human Exome CRISPR Library, Part Number G7553A
Part No. (Kit)	: G7553A
Part No.	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A 5190-9518
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B 5190-9519
	: SureGuide pSGLenti CRISPR Control Plasmid (Human) 5190-9520

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

Identified uses	
Analytical reagent.	
SureGuide pSGLenti GeCKO v2.0 Library HuEx A	4 x 0.025 mL
SureGuide pSGLenti GeCKO v2.0 Library HuEx B	4 x 0.025 mL
SureGuide pSGLenti CRISPR Control Plasmid (Human)	0.025 mL

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Mixture
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Mixture
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

Date of issue/Date of revision : 14/09/2016

SECTION 2: Hazards identification

2.2 Label elements

Signal word	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No signal word.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No signal word.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No signal word.
Hazard statements	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.
<u>Precautionary statements</u>		
Prevention	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not applicable.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not applicable.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not applicable.
Response	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not applicable.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not applicable.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not applicable.
Storage	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not applicable.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not applicable.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not applicable.
Disposal	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not applicable.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not applicable.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not applicable.

SECTION 2: Hazards identification

Supplemental label elements : SureGuide pSGLenti GeCKO v2.0 Library HuEx A Not applicable.
 SureGuide pSGLenti GeCKO v2.0 Library HuEx B Not applicable.
 SureGuide pSGLenti CRISPR Control Plasmid (Human) Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : SureGuide pSGLenti GeCKO v2.0 Library HuEx A Not applicable.
 SureGuide pSGLenti GeCKO v2.0 Library HuEx B Not applicable.
 SureGuide pSGLenti CRISPR Control Plasmid (Human) Not applicable.

Special packaging requirements

Tactile warning of danger : SureGuide pSGLenti GeCKO v2.0 Library HuEx A Not applicable.
 SureGuide pSGLenti GeCKO v2.0 Library HuEx B Not applicable.
 SureGuide pSGLenti CRISPR Control Plasmid (Human) Not applicable.

2.3 Other hazards

Other hazards which do not result in classification : SureGuide pSGLenti GeCKO v2.0 Library HuEx A None known.
 SureGuide pSGLenti GeCKO v2.0 Library HuEx B None known.
 SureGuide pSGLenti CRISPR Control Plasmid (Human) None known.

SECTION 3: Composition/information on ingredients

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

SECTION 4: First aid measures

Eye contact	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A SureGuide pSGLenti GeCKO v2.0 Library HuEx B SureGuide pSGLenti CRISPR Control Plasmid (Human)	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. 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. 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	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A SureGuide pSGLenti GeCKO v2.0 Library HuEx B SureGuide pSGLenti CRISPR Control Plasmid (Human)	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A SureGuide pSGLenti GeCKO v2.0 Library HuEx B SureGuide pSGLenti CRISPR Control Plasmid (Human)	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A SureGuide pSGLenti GeCKO v2.0 Library HuEx B SureGuide pSGLenti CRISPR Control Plasmid (Human)	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
Protection of first-aiders	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A SureGuide pSGLenti GeCKO v2.0 Library HuEx B SureGuide pSGLenti CRISPR Control Plasmid (Human)	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. No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed**Potential acute health effects**

SECTION 4: First aid measures

Eye contact	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.
Inhalation	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.
Skin contact	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.
Ingestion	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No specific data.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No specific data.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No specific data.
Inhalation	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No specific data.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No specific data.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No specific data.
Skin contact	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No specific data.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No specific data.
	: SureGuide pSGLenti	No specific data.

SECTION 4: First aid measures

	CRISPR Control Plasmid (Human)	
Ingestion	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No specific data.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No specific data.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No specific treatment.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No specific treatment.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Use an extinguishing agent suitable for the surrounding fire.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Use an extinguishing agent suitable for the surrounding fire.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	None known.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	None known.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureGuide pSGLenti	In a fire or if heated, a pressure increase will occur and the

SECTION 5: Firefighting measures

	CRISPR Control Plasmid (Human)	container may burst.
Hazardous combustion products	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No specific data.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No specific data.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	No specific data.

5.3 Advice for firefighters

Special precautions for fire-fighters	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	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.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	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.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	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	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	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.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	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.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	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.

SECTION 6: Accidental release measures

For emergency responders	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	If specialised 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".
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	If specialised 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".
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	If specialised 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".
6.2 Environmental precautions	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Avoid dispersal of spilt 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).
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Avoid dispersal of spilt 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).
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Avoid dispersal of spilt 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).
6.3 Methods and material for containment and cleaning up		
Methods for cleaning up	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	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.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	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.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	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.
6.4 Reference to other sections	: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.	

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Put on appropriate personal protective equipment (see Section 8).
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Put on appropriate personal protective equipment (see Section 8).
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Put on appropriate personal protective equipment (see Section 8).

SECTION 7: Handling and storage

Advice on general occupational hygiene	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	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.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	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.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	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.

7.2 Conditions for safe storage, including any incompatibilities

Storage	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	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 unlabelled containers. Use appropriate containment to avoid environmental contamination.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	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 unlabelled containers. Use appropriate containment to avoid environmental contamination.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Industrial applications, Professional applications.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Industrial applications, Professional applications.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Industrial applications, Professional applications.

SECTION 7: Handling and storage

Industrial sector specific solutions	SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not applicable.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not applicable.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not applicable.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limits**

No exposure limit value known.

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

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

Individual protection measures

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.

SECTION 8: Exposure controls/personal protection

- 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.
- 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.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**Appearance

- Physical state** : SureGuide pSGLenti GeCKO v2.0 Library HuEx A Liquid.
SureGuide pSGLenti GeCKO v2.0 Library HuEx B Liquid.
SureGuide pSGLenti CRISPR Control Plasmid (Human) Liquid.
- Colour** : SureGuide pSGLenti GeCKO v2.0 Library HuEx A Not available.
SureGuide pSGLenti GeCKO v2.0 Library HuEx B Not available.
SureGuide pSGLenti CRISPR Control Plasmid (Human) Not available.
- Odour** : SureGuide pSGLenti GeCKO v2.0 Library HuEx A Not available.
SureGuide pSGLenti GeCKO v2.0 Library HuEx B Not available.
SureGuide pSGLenti CRISPR Control Plasmid (Human) Not available.
- Odour threshold** : SureGuide pSGLenti GeCKO v2.0 Library HuEx A Not available.
SureGuide pSGLenti GeCKO v2.0 Library HuEx B Not available.
SureGuide pSGLenti CRISPR Control Plasmid (Human) Not available.
- pH** : SureGuide pSGLenti GeCKO v2.0 Library HuEx A 7
SureGuide pSGLenti GeCKO v2.0 Library HuEx B 7
SureGuide pSGLenti CRISPR Control Plasmid (Human) 7

SECTION 9: Physical and chemical properties

Melting point/freezing point	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	0°C
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	0°C
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	0°C
Initial boiling point and boiling range	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	100°C
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	100°C
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	100°C
Flash point	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not available.
Evaporation rate	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not available.
Flammability (solid, gas)	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not applicable.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not applicable.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not applicable.
Upper/lower flammability or explosive limits	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not available.
Vapour pressure	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	: SureGuide pSGLenti CRISPR Control	Not available.

SECTION 9: Physical and chemical properties

	Plasmid (Human)	
Vapour density	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not available.
Relative density	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not available.
Solubility(ies)	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Easily soluble in the following materials: cold water and hot water.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Easily soluble in the following materials: cold water and hot water.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not available.
Auto-ignition temperature	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not available.
Decomposition temperature	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not available.
Viscosity	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	SureGuide pSGLenti CRISPR Control	Not available.

SECTION 9: Physical and chemical properties

	Plasmid (Human)	
Explosive properties	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not available.
Oxidising properties	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No specific test data related to reactivity available for this product or its ingredients.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No specific test data related to reactivity available for this product or its ingredients.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	The product is stable.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	The product is stable.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	The product is stable.
10.3 Possibility of hazardous reactions	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No specific data.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No specific data.
	SureGuide pSGLenti	No specific data.

SECTION 10: Stability and reactivity

CRISPR Control
Plasmid (Human)

10.5 Incompatible materials	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	May react or be incompatible with oxidising materials.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	May react or be incompatible with oxidising materials.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

Information on likely routes of exposure	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	Not available.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	Not available.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	Not available.

Potential acute health effects

Inhalation	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.
Ingestion	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.

SECTION 11: Toxicological information

Skin contact	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.
Eye contact	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No specific data.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No specific data.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No specific data.
Ingestion	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No specific data.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No specific data.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No specific data.
Skin contact	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No specific data.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No specific data.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No specific data.
Eye contact	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No specific data.
	: SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No specific data.
	: SureGuide pSGLenti CRISPR Control Plasmid (Human)	No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Short term exposure**

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

SECTION 11: Toxicological information**Long term exposure**

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.
Carcinogenicity	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.
Mutagenicity	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.
Teratogenicity	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.
Developmental effects	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.
Fertility effects	: SureGuide pSGLenti GeCKO v2.0 Library HuEx A	No known significant effects or critical hazards.
	SureGuide pSGLenti GeCKO v2.0 Library HuEx B	No known significant effects or critical hazards.
	SureGuide pSGLenti CRISPR Control Plasmid (Human)	No known significant effects or critical hazards.

SECTION 12: Ecological information**12.1 Toxicity**

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

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

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Methods of disposal : The generation of waste should be avoided or minimised 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.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information**Regulatory information**

ADR/RID / IMDG / IATA : Not regulated.

14.6 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.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : SureGuide pSGLenti	Not applicable.
	GeCKO v2.0 Library HuEx A	
	SureGuide pSGLenti	Not applicable.
	GeCKO v2.0 Library HuEx B	
	SureGuide pSGLenti	Not applicable.
	CRISPR Control Plasmid (Human)	

Other EU regulations

Europe inventory : All components are listed or exempted.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

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.

International lists

National inventory

Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Japan	: Japan inventory (ENCS) : All components are listed or exempted. Japan inventory (ISHL) : Not determined.
Malaysia	: Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Turkey	: Not determined.
United States	: All components are listed or exempted.

SECTION 15: Regulatory information

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

 Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

Full text of abbreviated H statements

Not applicable.

Full text of classifications [CLP/GHS]

Not applicable.

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Date of previous issue : No previous validation.

Version : 1

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