



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 2020/2008

Revision Date 06-Dec-2023

Revision Number 5

EGHS / English

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Code(s)** Various-Lentiviral particle format

**Product Name** SMARTvectorLentiviral shRNA, SMARTvector InducibleLentiviral shRNA, shMIMICLentiviral microRNA, shMIMICInducible Lentiviral microRNA, GIPZ Lentiviral shRNA, Decode, Precision LentiORF, Edit-R Lentiviral Cas9, Lentiviral dCas9-VPR, Edit-R Lentiviral sgRNA, CRISPRa Lentiviral sgRNA, Edit-R All-in-one Lentiviral sgRNA, CRISPRi Lentiviral Blast-dCas9, CRISPRi Lentiviral sgRNA, FGS CRISPRko

**Chemical name**

**Reach Number** A registration number is not required for this substance.

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

**Recommended Use** For research use only.

**Uses advised against** No information available.

### 1.3. Details of the supplier of the safety data sheet

**Supplier Name** Dharmacon Inc.  
Horizon Discovery Ltd.

**Supplier Address** 2650 Crescent Drive Suite 100  
Lafayette, CO 80026

**Supplier Phone Number** Tel: 303-604-9499  
Fax: 303-604-9680

**Supplier Email** technical@horizondiscovery.com

For further information, please contact.

### 1.4. Emergency telephone number

Emergency telephone

Chemtrec International 1-703-741-5970

Emergency telephone §45 - (EC)1272/2008	
Europe	112

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification of substance according to Regulation (EC) No 1272/2008 (CLP)

Not a hazardous substance or mixture.

### 2.2. Label elements

#### Label elements according to Regulation (EC) No 1272/2008 (CLP)

Not a hazardous substance or mixture.

### 2.3. Other hazards

Each viral particle stock contains a pure recombinant, replication-defective lentivirus population. Lentiviral vectors are considered GMO's. The viral particles are classified as Risk Group 2 by the World Health Organization (WHO) and Biosafety Level 2 (BL2) or Enhanced BL2 (depending on the circumstances) by the U.S. Centers for Disease Control (CDC) Office of Health and Safety.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

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

Chemical name	EC No	CAS-No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Reg. No.
Lentiviral Particles*	-	XXX-XX-X	1-99%	No data available	No data available
DMEM**	-	N/A	1-99%	No data available	No data available

\* Any concentration shown as a range is to protect confidentiality or is due to process variation.

\*\*All components need not be disclosed according to applicable regulations due to non-hazardous classification status.

### Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Chemical name	CAS-No	SVHC candidates
DMEM	N/A	-
Lentiviral Particles	XXX-XX-X	-

## SECTION 4: First aid measures

#### **4.1. Description of first aid measures**

<b>Inhalation</b>	Remove to fresh air. Administer oxygen if breathing is difficult. Get medical attention immediately if symptoms occur.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	DO NOT induce vomiting. Get medical attention.

#### **4.2. Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

### **Section 5: FIRE FIGHTING MEASURES**

#### **5.1. Extinguishing media**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** No information available.

#### **5.2. Special hazards arising from the substance or mixture**

##### **Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

#### **5.3. Advice for firefighters**

##### **Special protective equipment for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation.

**For emergency responders** Use personal protection recommended in Section 8.

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## **6.2. Environmental precautions**

**Environmental precautions** Should not be released into the environment. See Section 12 for additional Ecological Information.

## **6.3. Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

## **6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

# **SECTION 7: Handling and storage**

## **7.1. Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. This material should be handled at the biosafety level 2 (BSL2) as required by OSHA Bloodborne Pathogen Rule (29 CFR 1910.1030.7).

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## **7.2. Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed. Keep at -80°C.

## **7.3. Specific end use(s)**

**Risk Management Methods (RMM)** The information required is contained in this Material Safety Data Sheet.

# **Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

## **8.1. Control parameters**

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

**Derived No Effect Level (DNEL)** No information available

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**Predicted No Effect Concentration (PNEC)** No information available

## 8.2. Exposure controls

### **Engineering Controls**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

### **Personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand Protection** Protective gloves.

**Skin and body protection** Wear suitable protective clothing.

**Environmental exposure controls** No information available.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**Physical state** Liquid  
**Colour** Yellow  
**Odour** Data not relevant for safe use

<u>Property</u>	<u>Values</u>	<u>Remarks Method</u>
<b>Melting / freezing point</b>	Data not relevant for safe use	None known
<b>Boiling point / boiling range</b>	Data not relevant for safe use	None known
<b>Flammability</b>	Data not relevant for safe use	None known
<b>Lower and Upper Exposure Limit</b>	Data not relevant for safe use	None known
<b>Flash Point</b>	Data not relevant for safe use	None known
<b>Auto-ignition Temperature</b>	Data not relevant for safe use	None known
<b>Flammability Limit in Air</b>	Data not relevant for safe use	None known
<b>Decomposition Temperature</b>	Data not relevant for safe use	None known
<b>pH</b>	Data not relevant for safe use	None known
<b>Kinematic viscosity</b>	Data not relevant for safe use	None known
<b>Solubility</b>	Data not relevant for safe use	None known
<b>Partition coefficient: n-octanol/water</b>	Data not relevant for safe use	None known
<b>Vapour pressure</b>	Data not relevant for safe use	None known
<b>Density / Relative Density</b>	Data not relevant for safe use	None known
<b>Relative vapour density</b>	Data not relevant for safe use	None known
<b>Decomposition temperature</b>	Data not relevant for safe use	None known
<b>Particle characteristics</b>	Data not relevant for safe use	None known

### 9.2. Other information

**Softening Point** Data not relevant for safe use  
**Molecular Weight** Data not relevant for safe use  
**VOC Content (%)** Data not relevant for safe use

Liquid Density	Data not relevant for safe use
Bulk Density	Data not relevant for safe use
Particle Size	Data not relevant for safe use
Particle Size Distribution	Data not relevant for safe use

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Stable under normal conditions.

#### Explosion Data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

### 10.3. Possibility of hazardous reactions

**Possibility of Hazardous Reactions** None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

### 10.4. Conditions to avoid

Excessive heat.

### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

None under normal use conditions.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Test data is not available for the complete mixture.

#### **Classification procedure**

The method for classification of the mixture is based on ingredients of the mixture.

#### **Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

#### **Information on toxicological effects**

**Symptoms** No information available.

#### **Numerical measures of toxicity**

**Acute Toxicity** Shall not be classified as acutely toxic.

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

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive Toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

#### **11.2. Endocrine disrupting properties**

This product does not contain known or suspected endocrine disruptors.

## **SECTION 12: Ecological information**

#### **12.1. Ecotoxicity**

No information available.

#### **12.2. Persistence and degradability**

No information available.

#### **12.3. Bioaccumulative potential**

No information available.

#### **12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

No information available.

**12.6. Endocrine disrupting properties**

This product does not contain known or suspected endocrine disruptors.

**12.7 Other adverse effects**

Data not available.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

<b>Waste from residues/unused products</b>	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	No information available.

**SECTION 14: Transport information**

**IMDG**

<b>14.1 UN Number</b>	Not regulated
<b>14.2 Proper Shipping Name</b>	Not regulated
<b>14.3 Hazard Class</b>	Not regulated
<b>14.4 Packing group</b>	Not regulated
<b>14.5 Marine Pollutant</b>	Not applicable
<b>14.6 Special Provisions</b>	None
<b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	Not applicable

**RID**

<b>14.1 UN-No.</b>	Not regulated
<b>14.2 Proper Shipping Name</b>	Not regulated
<b>14.3 Hazard Class</b>	Not regulated
<b>14.4 Packing Group</b>	Not regulated
<b>14.5 Environmental hazard</b>	Not applicable
<b>14.6 Special Provisions</b>	None

**ADR**

<b>14.1 UN-No.</b>	UN3245
<b>14.2 Proper Shipping Name</b>	Genetically Modified Micro-Organism
<b>14.3 Hazard Class</b>	9
<b>14.4 Packing Group</b>	III
<b>14.5 Environmental hazard</b>	Not applicable



#### IATA

14.1 UN Number	UN3245
14.2 Proper Shipping Name	GMMO
14.3 Hazard Class	9
Subsidiary class	III
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

### SECTION 15: Regulatory information

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

##### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

##### Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV). This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

##### Persistent Organic Pollutants

Not applicable.

##### Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable.

##### International Inventories

TSCA	Contact supplier for inventory compliance status.
DSL/NDL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AICS	Contact supplier for inventory compliance status.

##### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

### 15.2. Chemical safety assessment

No information available.

## SECTION 16: Other information

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Legend

SVHC: Substances of Very High Concern for Authorization:

#### Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	-	Skin designation

### Key literature references and sources for data

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)

Revision Date 06-Dec-2023

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 2020/2008.

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

## Data for Regulatory Rules