

---

**1. IDENTIFICATION**

---

<b>Product Name</b>	Replication-Defective Lentiviral Vectors
<b>Recommended use of the chemical and restrictions on use</b>	
<b>Identified uses</b>	For research use only
<b>Restrictions on use</b>	Use as directed
<b>Company Identification</b>	Addgene 75 Sidney Street, Suite 550A Cambridge, MA 02139 (617) 225-9000 help@addgene.org
<b>Customer Information Number</b>	
<b>Emergency Telephone Number</b>	
<b>CHEMTREC Number</b>	USA: (800) 424-9300 EU: (202) 483-7616
<b>Issue Date</b>	June 20, 2016
<b>Supersedes Date</b>	This is the first issue.
<i>Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)</i>	

---

**2. HAZARD IDENTIFICATION**

---

**Hazard Classification**

This product CANNOT be classified in accordance with the Globally Harmonized System of Classification and Labelling (GHS) as it is a biological material and is outside the scope of this system. The toxicological properties of this material have not been fully investigated.

As with any chemical product of unknown toxicity, take precautions to prevent contact with eye, skin and mucous membranes. Use good industrial hygiene practices to prevent accidental exposure. Product should only be handled by technically qualified individuals who are educated in handling chemicals of unknown toxicity.

**This product should be handled as a biohazardous material under Biosafety Level 2/Enhanced Biosafety Level 2 Containment. Contact your local institutional biosafety office for accurate regional information.**

**Label Elements**

Hazard Symbols

Not applicable

Signal Word: Not applicable

**Hazard Statements**

None

**Precautionary Statements****Prevention**

Obtain special instructions before use.

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

Do not get in eyes, on skin, or on clothing.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves, eye protection, face protection, and protective clothing.

Contaminated clothing must not be allowed out of the workplace.

---

**2. HAZARD IDENTIFICATION**

---

**Response**

If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.

If swallowed: Immediately call a poison center or doctor. Do NOT induce vomiting.

**Storage**

Store locked up.

Store in accordance with Biosafety Level 2/Enhanced Biosafety Level 2 Containment requirements.

**Disposal**

Dispose of contents/container in accordance with manufacturer's instructions. (See Section 13 of this SDS.)

**Other Hazards**

Replication-defective lentiviral vectors are not known to cause disease in humans or animals. However, lentiviruses can integrate into the host cell genome and may pose some risk of insertional mutagenesis.

**Specific Concentration Limits**

The values listed below represent the percentages of ingredients of unknown toxicity.

Acute oral toxicity <5%

Acute dermal toxicity <5%

Acute inhalation toxicity <5%

Acute aquatic toxicity <5%

---

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

---

This product is a mixture.

**Component**

Virus particle

**CAS Number**

N.A.

**Concentration**

<0.1%

---

**4. FIRST- AID MEASURES**

---

**Description of necessary first-aid measures****Eyes**

Immediately flood the eye with plenty of water, also under the eyelids, for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

**Skin**

Wash affected area with plenty of soap and water. Seek medical attention if symptoms persist.

**Ingestion**

Do not induce vomiting. Obtain medical attention immediately. Never give anything by mouth to an unconscious or convulsing person.

**Inhalation**

Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention if symptoms occur.

---

**4. FIRST- AID MEASURES**

---

**Most important symptoms/effects, acute and delayed**

Aside from the information found under description of necessary first aid measures (above) and Indication of immediate medical attention and special treatment needed, no additional symptoms and effects are anticipated.

**Indication of immediate medical attention and special treatment needed****Notes to Physicians**

Treat symptomatically.

---

**5. FIRE - FIGHTING MEASURES**

---

**Suitable (and unsuitable) Extinguishing Media**

Use foam, dry chemical or carbon dioxide. Use water spray for surroundings and containers.

**Specific hazards arising from the chemical**

None known.

**Special Protective Actions for Fire-Fighters**

Wear full protective clothing and self-contained breathing apparatus.

---

**6. ACCIDENTAL RELEASE MEASURES**

---

**Personal precautions, protective equipment and emergency procedures**

Wear appropriate protective clothing.

**Environmental Precautions**

Prevent the material from entering drains or watercourses.

**Methods and materials for containment and cleaning up**

Contain spill and decontaminate the area using a disinfectant such as chlorine bleach (10% f.c.), Wescodyne, or detergent-based disinfectant.

---

**7. HANDLING AND STORAGE**

---

**Precautions for safe handling**

Handle as a biohazardous material under Biosafety Level 2/Enhanced Biosafety Level 2 Containment. Wear appropriate protective equipment when handling. Do not eat or drink while handling this material. Avoid contact with eyes, skin and clothing.

**Conditions for safe storage**

Store at -80°C to maintain product integrity. Storage area should be: cool - dry - well ventilated - out of direct sunlight - away from sources of ignition(heat, sparks, flames, pilot lights) - away from incompatible materials (see Section 10).

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

---

**Control parameters**

Exposure limits are listed below, if they exist.

**Virus Particle**

None established.

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

---

**Appropriate engineering controls**

Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.

**Individual protection measures****Respiratory Protection**

Wear respiratory protection if there is a risk of exposure. A NIOSH approved full face respirator may be worn. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

**Skin Protection**

Gloves

**Eye/Face Protection**

Safety glasses

**Body Protection**

Laboratory coat

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

---

**Appearance**

<b>Physical State</b>	Liquid
<b>Color</b>	Translucent red or tan-colored

**Odor**

None

**Odor Threshold**

Not applicable

**pH**

7.4

**Specific Gravity**

No data available

**Boiling Range/Point (°C/F)**

~100/212

**Melting Range/Point (°C/F)**

~0/32

**Flash Point (PMCC) (°C/F)**

Not flammable

**Vapor Pressure**

No data available

**Evaporation Rate (BuAc=1)**

No data available

**Solubility in Water**

Complete

**Vapor Density (Air = 1)**

No data available

**VOC (g/l)**

No data available

**Partition coefficient (n-octanol/water)**

No data available

**Viscosity**

No data available

**Auto-ignition Temperature**

No data available

**Decomposition Temperature**

No data available

**Upper explosive limit**

No data available

**Lower explosive limit**

No data available

**Flammability (solid, gas)**

Not applicable

---

**10. STABILITY AND REACTIVITY**

---

**Reactivity**

No known reactivity.

**Chemical Stability**

Stable under normal conditions.

---

**10. STABILITY AND REACTIVITY**

---

**Possibility of hazardous reactions**

Hazardous polymerization will not occur.

**Conditions to Avoid**

Heat – high temperatures

**Incompatible Materials**

None known

**Hazardous Decomposition Products**

None known

---

**11. TOXICOLOGICAL INFORMATION**

---

**Acute Toxicity**

No data available.

**Specific Target Organ Toxicity (STOT) – single exposure**

No data available.

**Specific Target Organ Toxicity (STOT) – repeat exposure**

No data available.

**Serious Eye damage/Irritation**

No data available.

**Skin Corrosion/Irritation**

No data available.

**Respiratory or Skin Sensitization**

No data available.

**Carcinogenicity**

Lentiviruses can integrate into the host cell genome and may pose some risk of oncogenic insertional mutagenesis.

This product has not been evaluated in animal carcinogenicity studies and is not listed on the NTP, IARC or OSHA database.

**Germ Cell Mutagenicity**

Lentiviruses can integrate into the host cell genome and may pose some risk of insertional mutagenesis.

**Reproductive Toxicity**

No data available.

**Aspiration Hazard**

Available data indicates this product is not expected to be an aspiration hazard.

---

**12. ECOLOGICAL INFORMATION**

---

**Ecotoxicity**

No relevant studies identified.

---

**12. ECOLOGICAL INFORMATION**

---

**Mobility in soil**

No relevant studies identified.

**Persistence/Degradability**

No relevant studies identified.

**Bioaccumulative Potential**

No relevant studies identified.

**Other adverse effects**

No relevant studies identified.

---

**13. DISPOSAL CONSIDERATIONS**

---

**Disposal Methods**

Dispose of viral stocks by autoclaving at 121°C for 30-45 minutes.

Dispose of infected liquid cultures by decontamination with chlorine bleach (10% f.c.) for 10 minutes and then dispose of in sink.

Dispose of infected animal carcasses or tissues by incineration

Dispose of in accordance with all applicable local and national regulations.

---

**14. TRANSPORT INFORMATION**

---

Contact supplier for transport information.

---

**15. REGULATORY INFORMATION**

---

**United States TSCA Inventory**

This product contains ingredients that have not been verified for listing on the US EPA Toxic Substance Control Act Chemical Substance Inventory. Therefore, this product is restricted to research and development purposes only.

**Canada DSL Inventory**

All components of this product have not been verified for inclusion on the Domestic Substance List (DSL).

**SARA Title III Sect. 311/312 Categorization**

Acute (Immediate)

**SARA Title III Sect. 313**

This product contains the following chemicals that are listed in Section 313 at or above de minimis concentrations: None

**California Proposition 65**

This product does not contain any chemicals which the State of California has found to cause cancer, birth defects or other reproductive harm.

---

**16. OTHER INFORMATION**

---

**Legend**

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service

ECHA: European Chemicals Agency

IARC: International Agency for Research on Cancer

LD50: Lethal Dose 50%

N/A: Denotes no applicable information found or available

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

SDS: Safety Data Sheet

STEL: Short Term Exposure Limit

TLV: Threshold Limit Value

Revision Date: June 20, 2016

Supersedes Date: This is the first issue.

Changes made: Not applicable.

**Information Source and References**

This SDS is prepared by Hazard Communication Specialists based on information provided by internal company references.

**Prepared By:** EnviroNet LLC.

The information and recommendations presented in this SDS are based on sources believed to be accurate. Addgene assumes no liability for the accuracy or completeness of this information. It is the user's responsibility to determine the suitability of the material for their particular purposes. In particular, we make NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, with respect to such information, and we assume no liability resulting from its use. Users should ensure that any use or disposal of the material is in accordance with applicable Federal, State, and local laws and regulations.

---