SAFETY DATA SHEET
Replication-Defective Recombinant Adeno-Associated Viral (rAAV) Vectors

1. IDENTIFICATION

Product Name	Replication-Defective Recombinant Adeno-Associated Viral (rAAV) Vectors
Recommended use of the chemical and restrictions on use	
Identified uses	For research use only
Restrictions on use	Use as directed
Company Identification	Addgene 490 Arsenal Way, Suite 100 Watertown, MA 02472
Customer Information Number	(617) 225-9000 help@addgene.org
Emergency Telephone Number	
CHEMTREC Number	USA: (800) 424-9300 EU: (202) 483-7616
Issue Date	June 20, 2016
Supersedes Date	This is the first issue.

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)

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 1 guidelines. 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 1 guidelines.
Disposal
Dispose of contents/container in accordance with manufacturer's instructions. (See Section 13 of this SDS.)
Other Hazards
Replication-defective recombinant adeno-associated viral (rAAV) vectors are not known to cause disease in humans or animals.
rAAV will enter mammalian cells and can remain in episomal form in non-dividing cells. In the presence of adenovirus (or other helper viruses) and wild-type AAV the rAAV can integrate into host cell chromosome and be shed from host. Therefore, caution should be used when using rAAV vectors in combination with helper viruses and wild-type AAV.

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	CAS Number	Concentration
Virus particle	N.A.	<1.0%

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 1 guidelines. 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.

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

Physical State	Liquid
Color	Colorless
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.

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

Germ Cell Mutagenicity
This product has a very low probability of integrating into the host genome. This integration is not-random.

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.

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.