



SAFETY DATA SHEET

Semliki Forest Reporter Virus Particles

Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifiers

Product Name : SEMLIKI FOREST (SFV) REPORTER VIRUS PARTICLES
Brand : Integral Molecular, Inc.
Catalog numbers : RVP-1106, RVP-1106G, RVP-1106L

1.2. Identification of the biological product or preparation

Biological Product : Replication-defective, Alphavirus pseudotyped lentivirus

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

Recommended use : For research use only
Uses advised against : Not to be used in humans or food animals

1.4. Details of the supplier of the safety data sheet

Company : Integral Molecular, Inc.
25 N. 38th Street, Suite 800
Philadelphia, PA 19104
Telephone : +1 215-966-6061

1.5. Emergency telephone number

Telephone : +1 215-966-6061

1.6. Issue date

: July 15, 2025

2. HAZARDS IDENTIFICATION

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

2.1 Pathogenicity

Lentivirus-derived non-replicating vectors derived from HIV-1 do not encode the viral proteins or genome required for viral replication. Replication-defective lentiviral vectors are not known to cause any diseases in humans or animals. However, they can integrate into the cell genome and thus pose some risk of insertional mutagenesis.

Semliki forest reporter virus particles have broad cell tropism because of the viral envelope surface protein that mediates fusion, and its putative receptor/s are likely ubiquitously expressed across host species and cell types.

Semliki forest reporter virus particles are derived from a second-generation 3 plasmid system that requires 3 recombination events to generate replication competent lentivirus.

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Gag and pol genes are together on the same plasmid as tat and rev. The HIV-1 accessory genes vif, vpr, vpu, nef are absent. The HIV-1 envelope gene is also absent. The genome packaged into the virus does not encode viral proteins.

2.2 Classification of the substance or mixture

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.

2.3 Biohazard Classification

As per guidelines recommended by the NIH, replication-incompetent lentiviral particles are to be handled as Risk Group-Level 2 (RGL2) (https://osp.od.nih.gov/wp-content/uploads/Lenti_Containment_Guidance.pdf)

2.4 Hazards not otherwise classified (HNOC) or not covered by GHS

Handle as if capable of transmitting infectious agents. 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.

2.5 Precautionary Statements

- 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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Biological Product

Virus name: Recombinant Semliki Forest Pseudotyped Lentiviral Reporter Viruses
Type: Lentiviral vector
Promoter: CMV
Replicative: No
LTR: HIV delta-U3 (deletion) self-inactivating, truncated 5' LTR from HIV-1

4. FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move person into fresh air. If not breathing, give artificial respiration and obtain medical attention.

Ingestion

If swallowed, rinse mouth with water. Do not induce vomiting. Immediately get medical advice/attention.

Skin contact

Wash immediately with plenty of soap and water. If skin irritation occurs, get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eye contact

Rinse cautiously with water at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if soreness or redness persists. Contact lenses are not recommended when handling viral vectors.

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

No information available.

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

Treat symptomatically.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Substance is non-flammable. Use extinguishing agent suitable for surrounding fire.

5.2. Special hazards arising from the substance or mixture

None known.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus and full protective gear if necessary.

6. ACCIDENTAL RELEASE MEASURES

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- 6.1. Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.
- 6.2. Environmental precautions**
Should not be released into the environment.
- 6.3. Methods and materials for containment and cleaning up**
Keep in suitable closed containers for disposal. Clean up and decontaminate all materials for disposal, as well as contaminated surfaces, with an effective decontamination method such as autoclaving, incineration, or chemical disinfection such as chlorine bleach.
- 6.4. Reference to other sections** Refer to protective measures in Sections 8 and 13.
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7. HANDLING AND STORAGE

- 7.1. Precautions for safe handling** Handle in accordance with good industrial hygiene and safety practices. Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. This product should be handled at a biosafety level 2 or enhanced biosafety level 2 (BSL2) as required by OSHA Bloodborne Pathogen Rule (29 CFR 1910.1030).
- 7.2. Conditions for safe storage, including any incompatibilities**
Keep container tightly closed. Store at -80°C.
Storage class (TRGS 510): Infectious substances.
Store locked up in accordance with biosafety level 2 or enhanced biosafety level 2 containment requirements.
- 7.3. Specific end use(s)**
See Section 1.3.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2. Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Collective protection

BLS-2 containment and BSC-2 biosafety cabinet-2.

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Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Body Protection

Laboratory coat.

Respiratory protection

Respiratory protection is not required. If there is a risk of exposure or insufficient ventilation, wear suitable respiratory equipment that has been tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Clear/pink
Form	Liquid
Odor	No data available
Odor Threshold	No data available
pH	No data available
Melting point/range	No data available
Boiling point/range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Explosion limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Water solubility	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

- 9.2. Other safety information**
No data available.
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10. STABILITY AND REACTIVITY

- 10.1. Reactivity**
No data available.
- 10.2. Chemical stability**
Stable under recommended storage conditions.
- 10.3. Possibility of hazardous reactions**
No data available.
- 10.4. Conditions to avoid**
No data available.
- 10.5. Incompatible materials**
No data available.
- 10.6. Hazardous decomposition products**
No data available. In the event of fire, see section 5.
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11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity
No data available.

Skin corrosion/irritation
No data available.

Serious eye damage/eye irritation
No data available.

Respiratory or skin sensitization
No data available.

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

Carcinogenicity

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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.

Reproductive toxicity

No data available.

Specific target organ toxicity - single exposure

No data available.

Specific target organ toxicity - repeated exposure

No data available.

Aspiration hazard

No data available.

Additional Information

RTECS: Not available.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

No data available.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment is not required.

12.6. Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1. Disposal methods

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

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- 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.
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14. TRANSPORT INFORMATION

Product ships on DRY ICE.

UN Number: 1845

Class: 9

Proper Shipping Name: CARBON DIOXIDE, SOLID

REPORTER VIRUS PARTICLES are exempt from the 3373 categorization in accordance with Section 2.6.3.2.3.3 of UN transportation regulations.

UN Number: 3245

Class: 9

Proper Shipping Name: GENETICALLY MODIFIED ORGANISMS

Marine pollutant: No

Poison Inhalation Hazard: No

15. REGULATORY INFORMATION

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

None applicable.

15.2. Chemical safety assessment

A Chemical Safety Assessment (CSA) has not been conducted.

15.3. Classification

Biohazard Biosafety level BSL-2.

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16. OTHER INFORMATION

Disclaimer

The above information is believed to be correct but does not claim to be all inclusive and should only be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The information herein does not represent any guarantee of the properties of the product. Integral Molecular shall not be held liable for any damage resulting from handling or from contact with the above product.

Safety Data Sheet Preparation

Integral Molecular, Inc.
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