SAFETY DATA SHEET (SDS)

Recombinant Adeno-Associated Virus (rAAV) Vectors

For Research Use Only (RUO)

Revision date: 2026-02-04

Product category	Recombinant AAV vectors (various serotypes, promoters, transgenes)
Product identifier	Recombinant adeno-associated virus (rAAV); replication-defective

SECTION 1 - IDENTIFICATION

1.1 Product identifier: Recombinant adeno-associated virus (rAAV) vectors (various serotypes and genome constructs).

1.2 Recommended use: Gene delivery vector for laboratory research. Uses advised against: Human or veterinary use; clinical or diagnostic use unless explicitly authorized and accompanied by product-specific documentation.

1.3 Supplier: Biohippo Inc. | Email: support@biohippo.com | Website: ebiohippo.com

1.4 Emergency phone: For medical emergencies, contact local emergency services. For product information, contact the supplier using the details above during business hours.

SECTION 2 - HAZARD(S) IDENTIFICATION

2.1 Classification (OSHA HazCom 2012 / GHS): Not classified as a hazardous chemical.

2.2 GHS label elements: No pictogram. No signal word. No hazard statements.

2.3 Other hazards (biological): This product contains replication-defective recombinant AAV particles. Wild-type AAV is not known to cause disease in humans; however, recombinant vectors may present biological risk depending on the transgene, promoter, and intended use.

- Follow your institutional biosafety committee (IBC) guidance and applicable regulations.
- Many institutions handle replication-defective rAAV encoding non-toxic, non-tumorigenic genes at Biosafety Level 1 (BSL-1). BSL-2 practices may be required for certain transgenes (e.g., oncogenes, toxins, immunomodulators), for work in animals, or where aerosol generation is likely.
- Avoid inhalation of aerosols and avoid contact with eyes, mucous membranes, broken skin, and sharps injuries.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance/mixture: Mixture (biological material in aqueous buffer).

3.2 Components (typical): Recombinant AAV capsid proteins and vector genome (single-stranded or self-complementary DNA), suspended in buffer (e.g., PBS, saline, or Tris-based buffers). Formulation may include stabilizers (e.g., salts, sugars, glycerol) depending on product/lot.

No components are present at concentrations requiring hazard disclosure as a chemical under GHS/OSHA in typical rAAV formulations. See product label/COA for lot-specific formulation information.

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

- Inhalation: Not expected to pose an inhalation hazard under normal handling. If aerosol exposure is suspected, move to fresh air and seek medical advice if symptoms develop.
- Skin contact: Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse.
- Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing and seek medical advice if irritation persists.
- Ingestion: Rinse mouth with water. Do not induce vomiting. Seek medical attention if symptoms occur or if large amounts are ingested.
- Needlestick/sharps exposure: Encourage bleeding at the wound site, wash with soap and water, and seek medical evaluation following institutional exposure procedures.

4.2 Most important symptoms/effects

No specific symptoms are expected from incidental exposure. Effects, if any, may depend on the transgene and exposure route.

4.3 Indication of immediate medical attention

Treat symptomatically. Provide this SDS to healthcare personnel if medical attention is required.

SECTION 5 - FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media: Use media appropriate for surrounding fire (water spray, foam, CO2, or dry chemical).

5.2 Specific hazards: Product is an aqueous biological suspension and is not expected to be flammable. Packaging materials may burn.

5.3 Protective equipment: Firefighters should wear standard protective equipment and self-contained breathing apparatus when necessary.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

- Restrict access to the area. Avoid generating aerosols.
- Wear appropriate PPE (gloves, lab coat, eye/face protection). Use a biological safety cabinet (BSC) if aerosolization is possible.

6.2 Containment and cleanup

- Absorb spill with paper towels or absorbent material.

- Decontaminate using freshly prepared bleach solution (e.g., 10% household bleach; approximately 0.5-1% sodium hypochlorite) or another EPA-registered disinfectant effective for non-enveloped viruses. Allow at least 10 minutes contact time (up to 30 minutes per institutional practice).
- Collect contaminated absorbent and dispose of as biohazardous waste.
- Alcohols (e.g., 70% ethanol/isopropanol) are generally less effective against non-enveloped viruses such as AAV; if used, apply only after appropriate primary disinfection (e.g., bleach) to remove residue.

6.3 Environmental precautions

Prevent release to drains and the environment where practicable. Follow institutional and local requirements for biological materials.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling

- Handle according to BSL practices appropriate for the vector design and your IBC approval.
- Perform manipulations that may generate aerosols (pipetting, vortexing, sonication, centrifugation) in a certified BSC or with appropriate containment.
- Do not eat, drink, smoke, or apply cosmetics in the laboratory. Wash hands after handling.
- Avoid repeated freeze-thaw cycles. Aliquot upon first thaw when feasible.

7.2 Storage conditions

- Long-term storage: -80°C (recommended).
- Short-term storage: 2-8°C for limited periods as appropriate for your protocol; consult product label/COA when available.
- Ship and transport on dry ice or cold packs as appropriate.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits: None established for recombinant AAV vectors. Treat as a biological agent.

8.2 Engineering controls

- Use a certified biological safety cabinet for procedures with splash or aerosol potential.
- Use sealed centrifuge rotors or safety cups; open in a BSC after centrifugation.

8.3 Personal protective equipment (PPE)

- Gloves: Nitrile or equivalent; change when contaminated and remove before leaving the lab.
- Eye protection: Safety glasses or goggles; face shield if splash risk.
- Body protection: Lab coat or disposable gown; closed-toe shoes; long pants.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Clear to slightly opalescent liquid suspension
- Odor: Odorless
- pH: Typically near neutral (varies by buffer)
- Boiling point / freezing point: Not determined (aqueous solution)

- Flammability: Not flammable
- Solubility: Miscible with water
- Other: Non-enveloped virus particles (approx. 20-26 nm)

SECTION 10 - STABILITY AND REACTIVITY

- Reactivity: Not expected to be reactive under normal conditions.
- Chemical stability: Stable when stored frozen as recommended. Activity may decrease with repeated freeze-thaw cycles.
- Incompatible materials: Strong oxidizers, strong acids/bases (may damage biological material).
- Hazardous decomposition products: None expected.

SECTION 11 - TOXICOLOGICAL INFORMATION

No chemical toxicology data are available for this mixture. Recombinant AAV is not known to cause disease in healthy humans; however, exposure may present risks depending on the transgene and the recipient cell/organism.

- Likely routes of exposure: Skin/eye contact, accidental ingestion, inhalation of aerosols, sharps injury.
- Acute effects: Not expected from incidental exposure; potential irritation from buffer components is possible.
- Delayed effects: Theoretical risk of gene transfer depending on vector design and exposure route.

SECTION 12 - ECOLOGICAL INFORMATION

Ecological data are not available for this product. Avoid release to the environment. Recombinant viral vectors should be handled and disposed of as biohazardous material per institutional requirements.

SECTION 13 - DISPOSAL CONSIDERATIONS

- Decontaminate liquid waste with bleach (10% household bleach; allow adequate contact time per institutional practice) before disposal, or use an approved disinfectant effective for non-enveloped viruses.
- Autoclave solid waste at 121°C for 30-45 minutes (or per institutional cycle) prior to disposal when appropriate.
- Dispose of sharps in approved sharps containers.
- Follow federal, state, and local regulations and institutional biosafety procedures.

SECTION 14 - TRANSPORT INFORMATION

Not regulated as a hazardous material for transport under US DOT/IATA/IMDG when supplied as replication-defective recombinant AAV for research use. Requirements may vary by jurisdiction and by vector construct. Ship with appropriate temperature control (e.g., dry ice) as applicable.

SECTION 15 - REGULATORY INFORMATION

Chemical inventory status: Not applicable (biological material). This product is not classified as hazardous under OSHA HazCom 2012 (29 CFR 1910.1200). Biosafety requirements are determined by local regulations and institutional biosafety policies.

SECTION 16 - OTHER INFORMATION

- Prepared for Biohippo rAAV products (general). For lot-specific information (titer, formulation, impurities), refer to the product label and Certificate of Analysis (COA) when available.
- This document is provided for information and guidance for laboratory safety. It does not replace institutional training, IBC review, or local regulations.