

# SAFETY DATA SHEET (SDS)



**Product Name:** RevIT™ GMP AAV Enhancer

**Product Number:** MIR 8200-GMP

This kit contains the following components. The required Safety Data Sheets for identified hazardous components are appended.

- RevIT™ GMP AAV Enhancer

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## SECTION 1. IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product Identifier:

1.1.1. **Product Name:** RevIT™ GMP AAV Enhancer

1.1.2. **Product Code:** MIR 8200-GMP, Part of MIR 8210-GMP

1.1.3. **CAS No.:** Not applicable.

### 1.2. Relevant Identified Uses of the Mixture and Uses Advised Against:

1.2.1. **Identified Uses:** For research use and further manufacturing.

1.2.2. **Uses Advised Against:** Not for administration into humans.

### 1.3. Details of the Supplier of the SDS:

1.3.1. **Company:** Mirus Bio LLC

1.3.2. **Address:** 5602 Research Park Blvd, Suite 210, Madison, WI 53719, USA

1.3.3. **Telephone No.:** 888.530.0801 (Toll Free within the U.S.) or +1.608.441.2852

1.3.4. **Fax:** +1.608.441.2849

1.3.5. **Email:** [info@mirusbio.com](mailto:info@mirusbio.com)

### 1.4. Emergency Telephone No.:

1.4.1. US and Canada: +1.800.633.8253

1.4.2. International: +1.801.629.0667

## SECTION 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture:

US CFR 1910.1200

Flammable liquids (Category 4), H227

### 2.2. Label Elements:

2.2.1. **Product Name:**

RevIT™ GMP AAV Enhancer

2.2.2. **Hazard Pictogram(s):**

None

2.2.3. **Signal Word(s):**

Warning

2.2.4. **Hazard Statement(s):**

H227: Combustible liquid.

2.2.5. **Precautionary Statement(s):**

P210: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P370+P378: In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.

P403+P235: Store in a well-ventilated place. Keep cool.

P501: Dispose of contents in accordance with local, state, or national legislation.

2.3. **Other Hazards:** None known.

2.4. **Additional Information:** None.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****3.1. Substances:**

Not applicable.

**3.2. Mixtures:**

Hazardous Ingredient(s)	CAS No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
Dimethyl sulfoxide	67-68-5	>99%	Flam. Liq. 4 H227	None

**SECTION 4. FIRST AID MEASURES****4.1. Description of First Aid Measures:****4.1.1. Inhalation:** Treat symptomatically. Move to fresh air.**4.1.2. Skin Contact:** Take off all contaminated clothing immediately. Rinse skin with water.**4.1.3. Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a poison center and/or doctor.**4.1.4. Ingestion:** Rinse mouth with water. Treat symptomatically. Consult physician.**4.2. Most Important Symptoms and Effects, Both Acute and Delayed:**

None known.

**4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed:**

Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES****5.1. Extinguishing Media:****5.1.1. Suitable Extinguishing Media:**

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

**5.1.2. Unsuitable Extinguishing Media:**

None known.

**5.2. Specific Hazards Arising from the Mixture:**

Carbon and sulfur oxides.

**5.3. Advice for Firefighters:**

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Use water spray to cool unopened containers.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****6.1. Personal Precautions, Protective Equipment and Emergency Procedures:**

Provide adequate ventilation. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Wear suitable protective clothing, gloves, and eye/face protection.

**6.2. Environmental Precautions:**

This material and its container must be disposed of in a safe way.

**6.3. Methods and Materials for Containment and Cleaning Up:**

Adsorb spillages onto sand, earth, or any suitable adsorbent material. Transfer to a container for disposal. Containers must not be punctured or destroyed by burning, even when empty.

**SECTION 7. HANDLING AND STORAGE****7.1. Precautions for Safe Handling:**

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting/equipment. Use non-sparking tools. Take action to prevent static discharges. Wear compatible protective gloves/protective clothing/eye protection/face protection. Wash hands after working with substance.

**7.2. Conditions for Safe Storage, Including Any Incompatibilities:**

Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Hygroscopic. Storage class (TRGS 510): 10: Combustible liquids.

**7.2.1. Storage Temperature:** -10 to -30°C, protected from light.

**7.2.2. Storage Life:** Stable under specified storage conditions.

**7.3. Specific End Use(s):** For research use and further manufacturing.**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control Parameters:****8.1.1. Occupational Exposure Limits:**

Dimethyl sulfoxide (67-68-5)		
USA OSHA	OSHA PEL (TWA) (ppm)	250 ppm

**8.2. Exposure Controls:****8.2.1. Appropriate Engineering Controls:**

Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Ensure adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present.

**8.2.2. Personal Protective Equipment:**

**8.2.2.1. Eye Protection:** Use equipment for eye protection tested and approved under appropriate government standards such as EN 166(EU). Safety glasses.

**8.2.2.2. Skin Protection:** Protective clothing and gloves.

**8.2.2.3. Respiratory Protection:** Normally no personal respiratory protection is necessary.

**8.2.2.4. Thermal Hazards:** None known.

**8.3. Environmental Exposure Controls:**

Avoid release to the environment.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on Basic Physical and Chemical Properties:**

**9.1.1. Appearance** Liquid  
Color: clear, colorless to slightly yellow.

**9.1.2. Odor:** No data available.

**9.1.3. Odor Threshold:** No data available.

**9.1.4. pH:** No data available.

**9.1.5. Melting Point/freezing Point:** No data available.

**9.1.6. Initial Boiling Point and Boiling Range:** No data available.

**9.1.7. Flash Point:** No data available.

**9.1.8. Evaporation Rate:** No data available.

**9.1.9. Flammability (Solid, Gas):** No data available.

**9.1.10. Upper/lower Flammability or Explosive Limits:**

Upper explosion limit: No data available.

Lower explosion limit: No data available.

**9.1.11. Vapor Pressure:** No data available.

**9.1.12. Vapor Density:** No data available.

**9.1.13. Density:** No data available.

**9.1.14. Relative Density:** No data available.

**9.1.15. Solubility(ies):** Completely miscible; alcohol soluble; diethyl ether soluble.

**9.1.16. Partition Coefficient:** No data available.

**9.1.17. Auto-ignition Temperature:** No data available.

**9.1.18. Decomposition Temperature:** No data available.

**9.1.19. Viscosity:** No data available.

**9.1.20. Explosive Properties:** No data available.

**9.1.21. Oxidizing Properties:** No data available.

**9.2. Other Information:** None.

## SECTION 10. STABILITY AND REACTIVITY

**10.1. Reactivity:** None anticipated.

**10.2. Chemical Stability:** Stable under recommended storage conditions.

**10.3. Possibility of Hazardous Reactions:** No hazardous reactions known if used for its intended purpose.

**10.4. Conditions to Avoid:** Avoid heat, flames, sparks, or other means of ignition.

**10.5. Incompatible Materials:** Acid chlorides, phosphorus halides, strong acids, strong oxidizing agents, strong reducing agents.

**10.6. Hazardous Decomposition Products:** Carbon and sulfur oxides under fire conditions.

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects:

**11.1.1. Acute Toxicity – Ingestion:** Dimethyl sulfoxide, LD50, 28,300 mg/kg (rat)

**11.1.2. Acute Toxicity – Skin Contact:** Dimethyl sulfoxide, LD50, 40,000 mg/kg (rat)

**11.1.3. Acute Toxicity – Inhalation:** Dimethyl sulfoxide, LD50, 5.33 mg/L, 4 hr (rat)

**11.1.4. Skin Corrosion/Irritation:** Dimethyl sulfoxide, Calculation method (Rabbit, OECD Test Guideline 404): Causes slight irritation (4 hr).

**11.1.5. Serious Eye Damage Irritation:**

Dimethyl sulfoxide, Calculation method (Rabbit, OECD Test Guideline 405): Causes slight irritation (24 hr).

**11.1.6. Skin Sensitization Data:** Not classified.

**11.1.7. Respiratory Sensitization Data:** Not classified.

**11.1.8. Germ Cell Mutagenicity:** Not classified.

### 11.1.9. Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**11.1.10. Reproductive Toxicity:** Not classified.

11.1.11. **Lactation:** Not classified.

11.1.12. **Specific Target Organ Toxicity - Single Exposure:** Not classified.

11.1.13. **Specific Target Organ Toxicity - Repeated Exposure:** Not classified.

11.1.14. **Aspiration Hazard:** Not classified.

11.2. **Additional Information:** None.

## SECTION 12. ECOLOGICAL INFORMATION

### 12.1. Ecotoxicity (Aquatic and Terrestrial, Where Available):

Toxicity to fish - Dimethyl sulfoxide

LC50 - Pimephales promelas (fathead minnow) - 34,000 mg/l - 96 h

LC50 - Oncorhynchus mykiss (rainbow trout) - 35,000 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates - Dimethyl sulfoxide

EC50 - Daphnia magna (Water flea) - 24,600 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae - Dimethyl sulfoxide

EC50 - Pseudokirchneriella subcapitata (green algae) - 17,000 mg/l - 72 h (OECD Test Guideline 201)

### 12.2. Persistence and Degradation:

Dimethyl sulfoxide

Aerobic - Exposure time 28 d

Result: 31 % - Not readily biodegradable. (OECD Test Guideline 301D)

12.3. **Bioaccumulative potential:** No data available.

12.4. **Mobility in Soil:** No data available.

12.5. **Other Adverse Effects:** No data available.

## SECTION 13. DISPOSAL CONSIDERATIONS

13.1. **Waste Treatment Methods:** Remove waste in accordance with local and/or national regulations. Offer surplus and non-recyclable solutions to a licensed disposal company.

13.2. To minimize exposure, refer to Section 8 (Exposure Controls/Personal Protection) of the SDS.

## SECTION 14. TRANSPORT INFORMATION

14.1. **UN Number:** None

14.2. **UN Proper Shipping Name:** Combustible liquid, n.o.s. (Dimethyl sulfoxide)

14.3. **Transport Hazard Class(es):** None

14.4. **Packing Group, If Applicable:** None

14.5. **Environmental Hazards:** Not classified as a marine pollutant.

14.6. **Guidance on Transport in Bulk (According to Annex II of MARPOL 73/783 and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code (IBC Code)):** None.

14.7. **Other Special Precautions Related to Transport:** Not regulated for transport in this quantity. According to 49 CFR 173.150(f)(1), this material should be reclassified as NA1993, Combustible Liquid, n.o.s. if it is shipped in bulk (>119 gallons per container).

## SECTION 15. REGULATORY INFORMATION

### 15.1. Safety, Health and Environmental Regulations Specific for the Product in Question:

#### **SARA 302/313 Components**

SARA 302: This material is not subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

#### **SARA 311/312 Hazards**

Fire hazard. Chronic health hazard.

#### **California Prop. 65 Components**

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

#### **Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain HAPs.

#### **WHMIS Hazard Class**

B3 Flammable and combustible material, combustible liquid

## SECTION 16. OTHER INFORMATION

**16.1. Revision Date:** 29 MAY 2024

**16.2. Reason for Revision:** New SDS document.

**16.3. Additional Information:** None.

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