

# SAFETY DATA SHEET (SDS)



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**Product Name:** RevIT™ AAV Enhancer

**Product Number:** MIR 8000, MIR 8006

**Revision Date:** JUL 20 2023

**Print Date:** SEP 28 2023

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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™ AAV Enhancer**1.1.2.Product Code:** MIR 8000, MIR 8006, Part of MIR 8007 and 8008**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 only.**1.2.2.Uses Advised Against:** Not known.**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™ 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 water spray, dry powder or carbon dioxide to extinguish.

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.**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.**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 protective gloves/protective clothing/eye protection/face protection.

**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 normal conditions.

**7.3. Specific End Use(s):** For research use only.**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:** Tightly fitting safety glasses with side shields.

**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: colorless.

**9.1.2.Odor:** Sulfurous.

**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:** 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:** Calculation method (Rabbit, OECD Test Guideline 404): Causes slight irritation (4 hr).
- 11.1.5. **Serious Eye Damage Irritation:**  
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

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

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

Toxicity to algae

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

### 12.2. **Persistence and Degradation:**

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:** None.

## 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:** 12 JUL 2023

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

**16.3. Additional Information:** None.

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