SAFETY DATA SHEET (SDS)

Product Name: *Trans*IT-PRO® Transfection Reagent

Product Number: MIR 5740, MIR 5750, MIR 6270

Revision Date: JUL 28 2020

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

1.1. Product Identifier:

1.1.1.Product Name: *Trans*IT-PRO® Transfection Reagent

1.1.2.Product Code: MIR 5720, MIR 5730, MIR 5740, MIR 5750, Part of MIR 5700, 5760, 6225, 6260, and 6270

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

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 2), H225
Eye damage (Category 1), H318

2.2. Label Elements:

2.2.1.Product Name: *Trans*IT-PRO® Transfection Reagent

2.2.2.Hazard Pictogram(s):



2.2.3.Signal Word(s): Danger

2.2.4.Hazard Statement(s):

H225: Highly flammable liquid and vapor.

H318: Causes serious eye damage.

2.2.5.Precautionary Statement(s):

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

P233: Keep container tightly closed.

P240: Ground and bond container and receiving equipment.

P241: Use explosion-proof electrical, ventilating, and lighting equipment.

P242: Use non-sparking tools.

P243: Take action to prevent static discharges.

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

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER/doctor.

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)
Ethanol	64-17-5	80	Flam. Liq. 2 H225 Eye Dam. 1 H318	GHS 02 GHS 05

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:
May cause irritation.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed:
Immediately call a poison center and/or doctor. 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:

Water jet spray.

5.2. Specific Hazards Arising from the Mixture:
Highly flammable liquid and vapor. May decompose in a fire, giving off toxic and irritant vapors.

5.3. Advice for Firefighters:
Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

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:

Store in a well-ventilated place. Keep cool.

7.2.1. Storage Temperature: -20°C.

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:

Ethanol (64-17-5)

USA OSHA	OSHA PEL (TWA) (mg/m³)	1900 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	1000 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: Alcohol

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): Water 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 friction, sparks, or other means of ignition.
10.5. Incompatible Materials: No data available.
10.6. Hazardous Decomposition Products: No data available.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects:

11.1.1. Acute Toxicity – Ingestion: Ethanol, LD50, 3450 mg/kg (mouse)

11.1.2. Acute Toxicity – Skin Contact: Not classified.

11.1.3. Acute Toxicity – Inhalation: Ethanol, LD50, 20,000 ppm/10H (rat)

11.1.4. Skin Corrosion/irritation: Not classified.

11.1.5. Serious Eye Damage Irritation:
Calculation method (Rabbit, OECD Test Guideline 405): Causes serious eye damage.

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: Ethanol, Group I
NTP: Ethanol
OSHA: Ethanol

11.1.10. Reproductive Toxicity:
Reproductive toxicity - Human - female - Oral
Effects on Newborn: Apgar score (human only).
Effects on Newborn: Other neonatal measures or effects.
Effects on Newborn: Drug dependence.

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): Low toxicity to invertebrates, fish, and algae.

12.2. Persistence and Degradation: No data available.

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: 1170

14.2. UN Proper Shipping Name: Ethanol

14.3. Transport Hazard Class(es): Class 3

14.4. Packing Group, If Applicable: Packing Group II

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. Acute 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
B2 Flammable liquid
D2B Toxic material causing other toxic effects

SECTION 16. OTHER INFORMATION

16.1. Revision Date: 30 June 2020
16.2. Reason for Revision: Change in address of supplier.
16.3. Additional Information: None.

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