

MATERIAL SAFETY DATA SHEET
OSHA Hazard Communication (Rule 29 CFR 1910 1200)

SECTION I: MANUFACTURER AND PRODUCT

Manufacturer:

Life Sciences Advanced Technologies Inc.
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Product name: AMV Reverse Transcriptase or
RNA-Dependent DNA Polymerase (E.C. 2.7.7.7)

Cat No: AMV 007, RTHSA 35, BRT/TRT products (AMV RT in Trehalose)

Components:

Non-hazardous components: 46.77%
Glycerol 50% (v/v) Potassium Phosphate 3% (w/v)
Triton X-100 0.2% (v/v) Dithiothreitol 0.03% (w/v)
Alternatively, trehalose in place of glycerol in BRT/TRT products 38% (w/v)

SECTION II: HAZARDOUS INGREDIENTS

Exposure limit for the product mixture as a whole -	No information available
Hazardous Chemical Name - Reverse Transcriptase	No toxicity data available
Glycerol	LD ₅₀ (oral) in mice 26g/kg LK ₅₀ (oral) in rat 12.6g/kg
Dithiothreitol	LD ₅₀ (ipr) 169mg/kg
Potassium Phosphate	No Hazard or Toxicity known
Triton X-100	LD ₅₀ (oral) in rat 1.8 g/kg
Trehalose in TRT products	Irritant, no known toxicity

SECTION III: PHYSICAL DATA

Boiling Point °C	n.a.	Vapor Pressure mm Hg	n.a.
Vapor Density, Air = 1	n.a.	Solubility in Water	Soluble
Specific Gravity, Water = 1	1.129	Evaporation Rate	n.a.
Appearance and odor	Clear solution in 50% glycerol		

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method)	n.a.
Extinguishing Media	CO ₂ , dry powder, alcohol or polyfoam
Special Fire Fighting Procedure	Wear self-contained breathing apparatus and protective clothing
Flammable Limits Le 1% Ue 1%	n.a.

SECTION V: HEALTH HAZARD DATA

Health hazard of the chemical mixture as a whole: No information available. The toxicity of associated components is described in Section II. Although the toxicity of reverse transcriptase has not been documented the known function of the enzyme (that of synthesis of cDNA) is such that due care should be taken to prevent ingestion or skin contact. Remote pipeting, the wearing of gloves, goggles, and other protective clothing are therefore advised. Effect of Exposure - Allergic response is possible. Emergency and First-Aid Procedures - Call a physician, describe details of exposure. Should eye or skin contact occur, wash with water for 5 minutes.

SECTION VI: REACTIVITY DATA

Stable	at -70°C and -20°C	Unstable	n.a.
Condition to avoid	Heat, acids, bases	Material to avoid	n.a.
Oxidizing agents	Glycerol can explode when in contact with nitric, sulfuric, hydrofluoric, or perchloric acids, peroxides, potassium permanganate, perchlorates and sodium hydroxide.		
Polymerization	None known.		

SECTION VII: SPILL OR LEAK PROCEDURES

Spill	Wear protective clothing. Ventilate the area of the spill. Collect material by absorption with vermiculite or paper and hold for waste disposal. Then wash site with water.
Waste Disposal	Incinerate in a furnace having local environmental regulations permit. Dispose by means that comply with local, state and federal regulations.

SECTION VIII: SPECIAL PROTECTION INFORMATION

Respiratory Protection	Self-contained breathing apparatus for fires.
Ventilation	General room ventilation is satisfactory. Local ventilation when necessary.
Protective Gloves	Impervious, chemical resistant gloves.
Eye Protection	Safety glasses with side shields or goggles.
Other Protective Equipment	Safety shower, eyewash and respiratory equipment. Safety pipet device. Suitable protective clothing.

SECTION IX: TRANSPORT INFORMATION

U.S. DOT	This substance is considered to be non-hazardous for transport
IATA:	Non-hazardous for air transport

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