

# Material Safety Data Sheet

## M-MLV Reverse Transcriptase

ACC# 92199

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** M-MLV Reverse Transcriptase

**Catalog Numbers:** BP32081, BP32081S, BP32085

**Synonyms:** None Known.

**Company Identification:**

Fisher Scientific

1 Reagent Lane

Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
Not available	M-MLV Reverse Transcriptase	50.0	unlisted
56-81-5	Glycerol	50.0	200-289-5

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: Not available.

**Caution!** May cause eye, skin, and respiratory tract irritation. Good laboratory procedures are recommended when handling this compound. Hygroscopic (absorbs moisture from the air). This is expected to be a low hazard for usual industrial handling.

**Target Organs:** No data found.

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** May cause irritation of the digestive tract. Low hazard for usual industrial handling.

**Inhalation:** May cause respiratory tract irritation. Low hazard for usual industrial handling.

**Chronic:** May cause kidney injury.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.

**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water. Get medical aid if irritation or symptoms occur.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use agent most appropriate to extinguish fire. Cool containers with flooding quantities of water until well after fire is out. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** Not available

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 0; Instability: 0

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Wash hands before eating. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture. Store at -20°C.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
M-MLV Reverse Transcriptase	none listed	none listed	none listed
Glycerol	10 mg/m3 TWA	none listed	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)

**OSHA Vacated PELs:** M-MLV Reverse Transcriptase: No OSHA Vacated PELs are listed for this chemical. Glycerol: 10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** Not available.

**Odor:** Not available.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:** Not available.

**Decomposition Temperature:** Not available.

**Solubility:** Not available.

**Specific Gravity/Density:** Not available.

**Molecular Formula:** Not available.

**Molecular Weight:** Not available.

## Section 10 - Stability and Reactivity

**Chemical Stability:** Material is heat sensitive and may decompose at elevated temperatures.

**Conditions to Avoid:** Incompatible materials, excess heat, exposure to moist air or water.

**Incompatibilities with Other Materials:** Oxidizing agents, lead oxide, nitric acid, sulfuric acid, none reported, hydrogen peroxides, potassium permanganate, calcium hypochlorite, perchloric acid, moisture.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 56-81-5: MA8050000

**LD50/LC50:**

CAS# 56-81-5:

Draize test, rabbit, eye: 126 mg Mild;

Draize test, rabbit, eye: 500 mg/24H Mild;

Draize test, rabbit, skin: 500 mg/24H Mild;

Inhalation, rat: LC50 = >570 mg/m3/1H;

Oral, mouse: LD50 = 4090 mg/kg;

Oral, rabbit: LD50 = 27 gm/kg;

Oral, rat: LD50 = 12600 mg/kg;

Skin, rabbit: LD50 = >10 gm/kg;

**Carcinogenicity:**

CAS# 56-81-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** No information found

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	CARBON DIOXIDE, SOLID USED FOR DIAGNOSTIC OR TREATMENT PURPOSE	No information available.
<b>Hazard Class:</b>	9	
<b>UN Number:</b>		
<b>Packing Group:</b>	III	

## Section 15 - Regulatory Information

### US FEDERAL

**TSCA**

M-MLV Reverse Transcriptase is not listed on the TSCA inventory. It is for research and development use only.

CAS# 56-81-5 is listed on the TSCA inventory.

**Health & Safety Reporting List**

None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**

None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**

None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**

None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**

None of the chemicals in this product have a TPQ.

**SARA Codes**

CAS # 56-81-5: delayed.

**Section 313** No chemicals are reportable under Section 313.

**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 56-81-5 can be found on the following state right to know lists: Pennsylvania, Minnesota, Massachusetts.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations****European Labeling in Accordance with EC Directives****Hazard Symbols:**

Not available.

**Risk Phrases:****Safety Phrases:**

- S 37 Wear suitable gloves.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S 28A After contact with skin, wash immediately with plenty of water

**WGK (Water Danger/Protection)**

CAS# 56-81-5: 0

**Canada - DSL/NDSL**

CAS# 56-81-5 is listed on Canada's DSL List.

**Canada - WHMIS**

WHMIS: Not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

**Section 16 - Additional Information**

**MSDS Creation Date:** 12/04/2001

**Revision #2 Date:** 10/05/2004

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