





## Saprosin A, Human, Recombinant

Symptoms/injuries:	Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after inhalation:	May cause respiratory irritation.
Symptoms/injuries after skin contact:	May cause skin irritation.
Symptoms/injuries after eye contact:	May cause slight temporary irritation.
Symptoms/injuries after ingestion:	May cause gastrointestinal irritation.
Chronic symptoms:	No data available.

### 4.3 Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray.

### 5.2 Special hazards arising from the substance or mixture

Fire hazard:	Product is not flammable.
Explosion hazard:	Product is not explosive.
Reactivity:	No dangerous reactions known under normal conditions of use.

### 5.3. Advice for firefighters

Firefighting instructions:	Use water spray or fog for cooling exposed containers.
Protection during firefighting:	Exercise caution when fighting any chemical fire.
General measures:	Do not dispose of fire-fighting water in the environment.
Protection during firefighting:	Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

General measures: No specific emergency measures are required other than good. Laboratory hygiene and safety practices.

#### 6.1.1 For non-emergency personnel

Protective equipment: Wear Protective equipment as described in Section 8.

Emergency procedures: Evacuate unnecessary personnel.

#### 6.1.2 For emergency responders

Protective equipment: Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

### 6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

### 6.3 Methods and material for containment and cleaning up

For containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up: Take up liquid spill into inert absorbent material, e.g.: sand, earth, vermiculite. Sweep or shovel spills into appropriate container for disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

### 6.4 Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling:

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.



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### 7.2 Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed in a cool, dry, and well-ventilated place.

### 7.3 Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Glycerol (CAS# 56-81-5):

10 mg/m<sup>3</sup> based on USA. ACGIH Threshold Limit Values (TLV).

### 8.2 Exposure controls

Appropriate engineering controls:

Ensure adequate ventilation, especially in confined areas. Gloves. Protective goggles.

Personal protective equipment:

Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296.

Hand protection:

Suggested glove materials are: Natural rubber ("latex"), Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol Laminate, PVC or vinyl.

Eye protection:

Chemical goggles or safety glasses.

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Skin and body protection:

Wear suitable protective clothing. Wear long sleeves.

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Eye protection:

Skin and body protection:

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties of pure Glycerol. Information on mixture not available.

Physical state:

Viscous Liquid

Color:

Clear, colorless

Odor:

Odorless

Odor Threshold:

No data available

pH:

6.5 (10 g/l as aqueous solution at 25°C)

Relative evaporation rate (butyl acetate=1):

No data available

Melting point:

No data available

Freezing point:

No data available

Boiling point:

No data available

Flash point:

No data available

Auto-ignition temperature:

No data available

Decomposition temperature:

No data available

Flammability (solid, gas):

No data available

Vapor pressure:

No data available

Relative vapor density at 20 °C:

No data available

Relative density:

No data available

Solubility in water:

Soluble

Log Pow:

No data available

Log Kow:

No data available

Viscosity, kinematic:

No data available

Viscosity, dynamic:

No data available

Explosive properties:

No data available

Oxidizing properties:

No data available

Explosive limits:

No data available

### 9.2 Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2 Chemical stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3 Possibility of hazardous reactions

None known.

### 10.4 Conditions to avoid



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None known.

**10.5 Incompatible materials**

Strong oxidizing agents. Strong bases.

**10.6 Hazardous decomposition products**

Thermal decomposition generates: Carbon oxides (CO, CO<sub>2</sub>)

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

Acute toxicity:	No data available
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Respiratory or skin sensitization:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Specific target organ toxicity (single exposure):	No data available
Specific target organ toxicity (repeated exposure):	No data available
Aspiration hazard:	No data available
Symptoms/injuries after inhalation:	No data available
Symptoms/injuries after skin contact:	No data available
Symptoms/injuries after eye contact:	No data available
Symptoms/injuries after ingestion:	No data available
Chronic symptoms:	No data available

**SECTION 12: Ecological information**

**12.1 Toxicity**

No additional information available

**12.2 Persistence and degradability**

Persistence and degradability: Not established

**12.3 Bioaccumulative potential**

No additional information available

**12.4 Mobility in soil**

No additional information available

**12.5 Other adverse effects**

No additional information available

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

Waste treatment methods:	Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.
Waste disposal recommendations:	Dispose in a safe manner in accordance with local/national regulations.

**SECTION 14: Transport information**

In accordance with DOT, IATA, IMO, RID/ADR:

Not hazardous for transport

**Additional information**

Other information: No supplementary information available

**Transport by sea**

No additional information available

**Air transport**

No additional information available



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**SECTION 15: Regulatory information**

<b>15.1 US Federal regulations</b> <b>Glycerol, CAS# 56-81-5</b>	This chemical substance in this product is listed in the EPA (Environmental Protection Agency) TSCA (Toxic Substances C
<b>15.2 International regulations</b> <b>CANADA</b>	CAS# 56-81-5 is listed on Canada's DSL List. No additional information available.
<b>EUROPEAN REGULATIONS</b> European Labeling in accordance with EC Regulations: Hazard Symbols: Risk Phrases: Safety Phrases:	None None 24/25, Avoid contact with skin and eyes.
<b>15.3 US State regulations</b> <b>California Proposition 65</b>	This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm
<b>Glycerol (56-81-5)</b> U.S. - Massachusetts U.S. - New Jersey U.S. - Pennsylvania	Right To Know List Right to Know Hazardous Substance List RTK (Right to Know) List

**SECTION 16: Other information**

Indication of changes: Revision 1.0: New MSDS Created.  
Revision date: 04/19/2019  
Other information: None  
NFPA health hazard: 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.  
NFPA fire hazard: 0 - Materials that will not burn.  
NFPA reactivity: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

**HMIS III Rating**

Health: 0  
Flammability: 0  
Physical: 0

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