

**1. Identification of the substance/mixture and of the company/undertaking****1.1 Identification of the substance/preparation**

**Product name :** ExcelBand™ Super Range DNA Ladder (50 bp-25 kb)

**Product code :** DM5100

**Recommended use :** For laboratory use. Suitable for use as molecular weight standards for agarose gel electrophoresis.

**1.2 Company/Undertaking identification**

SMOBIO Technology, Inc.

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**1.3 Emergency telephone number**

**Emergency telephone :** +886 3 5799292(09.00-18.00 TST)

**2. Hazards identification****2.1 Classification of the substance or mixture**

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS) Classification to Regulation (EC) No 1272/2008

**2.2 Label elements**

**Symbol(s) :** Void

**Signal Word :** Not dangerous

**2.3 Other information**

**Hazards deriving from physical-chemical properties :** The data available do not support any physical or chemical hazard.

**Human health hazards :** Inappropriate handling may cause formation of aerosols.

Inhalation of aerosols may cause allergic type reactions in sensitized individuals.

Prolonged skin contact may cause minor irritation.

\*Caution: Avoid inhalation, ingestion, and skin contacts.

**Environmental hazards :** The data available do not support any environmental hazard.

### 3. Composition/information on ingredient

#### 3.1 Ingredients

| Chemical name | Concentration | EC No.    | CAS No. | Classification |
|---------------|---------------|-----------|---------|----------------|
| Glycerol      | 10-25 %       | 200-289-5 | 56-81-5 | Not classified |

#### 3.2 Other components

Components not listed here are not dangerous or their concentrations do not exceed the limits specified in the EU directive 1272/2008/EC.

#### 3.3 Additional information

For the wording of the listed risk phrases refer to section 16.

### 4. First aid measures

#### 4.1 General information

No special measures required.

#### 4.2 Description of first aid measures

**In case of ingestion :** If swallowed, rinse mouth and throat thoroughly with water.

Consult a doctor in event of any complaints.

**In case of inhalation :** If inhaled, remove victim from area of exposure. If symptoms of irritation or respiratory allergy occur, consult a doctor.

**In case of skin contact :** Generally, the product does not irritate the skin. If symptoms of irritation after prolonged exposure occur, consult a doctor.

**In case of eye contact :** Wash out opened eyes with plenty of water for several minutes. Consult a doctor in event of any complaints.

### 5. Fire fighting measures

#### 5.1 Suitable extinguishing agents

Water spray, Carbon dioxide (CO<sub>2</sub>), dry chemical powder or appropriate foam.

#### 5.2 Not suitable extinguishing agents

None.

#### 5.3 Special exposure hazards from decomposition products

Not thoroughly investigated.

#### 5.4 Protective equipment

Wear self-contained breathing apparatus and protective clothing.

## 6. Accidental release measures

### 6.1 Personal precautions

Wear appropriate gloves (see Section 8), safety glasses to clean small releases/spillage.  
In case of vapor/aerosol formation, wear suitable respiratory protection means. Ventilate the area.

### 6.2 Environmental precautions

No special measures required.

### 6.3 Methods for cleaning up

Absorb spillages with liquid-binding material. Ventilate and wash the area after the spillage is completely removed.

### 6.4 Additional information

No dangerous substances are released.

## 7. Handling and storage

### 7.1 Handling

No further requirements. Use appropriate personal protection measures (see Section 8). Avoid any contact with the liquid. Avoid the formation of aerosols. Ventilate area.

### 7.2 Storage

Store at - 20°C. No other specific requirements relating to the preparation.

## 8. Exposure controls/personal protection

### 8.1 Control parameters

| <u>Chemical name</u> | <u>CAS No.</u> | <u>Exposure limits</u>     |
|----------------------|----------------|----------------------------|
| Glycerol             | 56-81-5        | TWA : 10 mg/m <sup>3</sup> |

### 8.2 Exposure controls

Engineering measures : No specific requirements relating to the preparation.

### 8.3 Personal protection

Respiratory protection : No special measures required.

Hand protection : Wear rubber gloves. No special requirements to rubber.

Eye protection : Safety glasses (goggles) are recommended during ordinary operations with the preparation.

Skin protection : The usual precautionary measures accepted in research laboratories, e.g. protective clothes (gowns). No specific requirements.

**9. Physical and chemical properties****9.1 Information on basic physical and chemical properties**

**Appearance:** Liquid.

**Color:** Dark green.

**Odor:** Odorless.

**pH-value at 25°C:** 8.0.

**Boiling point:** 100°C.

**Flash Point:** Not applicable.

**Flammability / autoflammability:** The preparation is not flammable/self-igniting.

**Explosive properties:** The preparation does not possess explosive properties.

**Oxidizing properties:** Not applicable.

**Vapor pressure:** Not applicable.

**Relative density at 20°C:** ~1 g/cm<sup>3</sup>.

**Solubility in/miscibility with water:** Fully miscible.

**Fat solubility:** Not applicable.

**Vapor density:** Not applicable.

**Evaporation rate:** Not applicable.

**Conductivity:** Not applicable.

**Viscosity:** Not viscous.

**9.2 Other information**

No further relevant information available.

**10. Stability and reactivity****10.1 Stability**

Stable under storage conditions (see section 7).

**10.2 Reactivity**

No information available.

**10.3 Possibility of hazardous reactions**

No dangerous reactions known.

**10.4 Conditions to avoid**

No conditions which may cause dangerous reactions.

**10.5 Incompatible materials**

No in particular.

**10.6 Hazardous decomposition products**

No dangerous decomposition products known.

**11. Toxicological information****11.1 Information on toxicology effects****Acute toxicity:**

Not hazardous.

**Inhalation:**

Inhalation of aerosols may cause allergic type reactions in sensitized individuals.

**Ingestion:**

Repeated ingestion or excessive dosage may cause irritation of the gastrointestinal tract.

**Skin and eye contact:**

Generally, the product does not irritate the skin and eyes. Prolonged skin or eye contact may cause minor irritation.

**Chemical name****LD50 Oral****LD50 Dermal**

Glycerol

12600 mg/kg(Rat)

21900 mg/kg(Rat)

**Chronic toxicity:**

Product does not present a chronic toxicity hazard based on known or supplied information.

**Carcinogenic effects:**

Product does not present a carcinogenic effects based on known or supplied information.

**Mutagenic effects:**

Product does not present a c mutagenic effects based on known or supplied information.

**Reproductive toxicity:**

Product does not present a reproductive toxicity hazard based on known or supplied information.

**Sensitization:**

Product does not present a sensitization hazard based on known or supplied information

**Target organ effects:.**

Product does not present a target organ effects based on known or supplied information.

**12. Ecological information****12.1 Ecotoxicity**

The preparation is considered not dangerous to the environment with respect to mobility, persistence and degradability, bioaccumulation, aquatic toxicity and other data relating to ecotoxicity.

**12.2 Persistence and degradability**

The preparation is readily biodegradable.

**12.3 Bioaccumulative potential**

It is considered that the preparation does not accumulate in biota, and does not pass through the food chain.

**12.4 Other adverse effects**

Not applicable.

**13. Disposal consideration**
**13.1 Waste treatment methods**

**Waste from residues / unused products:** Dispose of in accordance with local regulation.

**Contaminated packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. Transport information**

**IMDG/IMO:** Non-hazardous for sea freight.

**RID:** Non-hazardous for rail transport.

**ARD:** Non-hazardous for road transport.

**ICAO/IATA:** Non-hazardous for air transport.

**15. Regulatory information**
**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

No information available.

**15.2 Chemical safety assessment**

No information available.

**15.3 Regulatory information**

**US :**

**Labelling according to US Regulations:** Caution: Avoid contact and inhalation.

**US Regulatory information:** SARA LISTED: No.

**EU :**

**Labelling according to EU Guidelines:** The preparation is not dangerous within the meaning

Printed : 6/26/2025

Revised : 06/26/2025

of Directives 1272/2008/EC, and is not labelled with danger symbols or indications of danger.

**Canada :**

**WHMIS classification:** This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

**DSL:** No.

**NDSL:** No.

#### 16. Other information

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SMOBIO shall not be held liable for any damage resulting from handling or from contact with the above product.