

# SAFETY DATA SHEET



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## 1. Identification of the substance/mixture and of the company/undertaking

### 1.1 Identification of the substance/preparation

**Product name** : TRI-color Pre-stained Protein Marker

**Product code** : BYPL500 / BYPL600 / BYPL700

**Recommended use** : For research use only. Suitable for use as molecular weight standards for SDS-PAGE electrophoresis.

### 1.2 Company/Undertaking identification

BYLABS, Inc.

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## 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.

# SAFETY DATA SHEET



Printed : 10/27/2025

Revised : 10/26/2025

## 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
Sodium dodecyl sulfate	1-3 %	205-788-1	51-21-3	Xn;R21/22-36/38, Acute Tox.4;H302/H312
Urea	< 25 %	200-315-5	57-13-6	Not classified
Tris-phosphate	1-2 %	230-260-2	6992-39-8	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

# SAFETY DATA SHEET



Printed : 10/27/2025

Revised : 10/26/2025

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>
Sodium dodecyl sulfate	151-21-3	No data available
Urea	57-13-6	No data available
Tris-phosphate	6992-39-8	No data available

### **8.2 Exposure controls**

**Engineering measures :** Ensure adequate ventilation, especially in confined areas.

# SAFETY DATA SHEET



Printed : 10/27/2025

Revised : 10/26/2025

## 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**: Blue.

**Odor**: Odorless or weak.

**pH-value at 25°C**: 7.5.

**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

# SAFETY DATA SHEET



Printed : 10/27/2025

Revised : 10/26/2025

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.

<u>Chemical name</u>	<u>LD50 Oral</u>	<u>LD50 Dermal</u>	<u>LD50 Inhalation</u>
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Glycerol	12600 mg/kg(Rat)	21900 mg/kg(Rat)	
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Sodium dodecyl sulfate	1288 mg/kg(Rat)	580 mg/kg(Rat)	3900 mg/m <sup>3</sup> (Rat)1h
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#### **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.

# SAFETY DATA SHEET



Printed : 10/27/2025

Revised : 10/26/2025

**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.

# SAFETY DATA SHEET



Printed : 10/27/2025

Revised : 10/26/2025

## 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 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

### 16.1 Full text of R-phrases referred to under sections 3

R21 : Harmful in contact with skin.

R22 : Harmful if swallowed.

R36 : Irritating to eyes.

R38 : Irritating to skin.

### 16.2 Full text of physical and health hazards referred to under sections 3

H302 : Harmful if swallowed.

H312 : Harmful in contact with skin.

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