SAFETY DATA SHEET

Printed：12/09/2015 Revised：12/09/2015

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

1.1 Identification of the substance/preparation

Product name : YesBlot Western Marker I

Product code : WM1000

Recommended use : For research use only. Suitable for use as molecular weight standards for Western blot transferring.

1.2 Company/Undertaking identification

SMOBIO Technology, Inc.

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Tel : +886 3 5799292

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E-mail : support@smobio.com

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

GHS/GLP : Classification to Regulation (EC) No 1272/2008

DSD/DPD : Classification to according to EU Directives 67/548/EC or 1999/45/EC

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
Sodium dodecyl sulfate	1-3 %	205-788-1	51-21-3	Xn;R21/22-36/38, Acute Tox.4;H302/H312
Urea	< 10 %	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 1999/45/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_2), 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℃. No other specific requirements relating to the preparation.

8. Exposure controls/personal protection

8.1 Control parameters

Chemical name	CAS No.	Exposure limits
Glycerol	56-81-5	TWA : 10 mg/m^3
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.

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℃.

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^3.

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:

Inhalation: 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	LD50 Inhalation
Glycerol	12600 mg/kg(Rat)	21900 mg/kg(Rat)	
Sodium dodecyl sulfate	1288 mg/kg(Rat)	580 mg/kg(Rat)	3900 mg/m^3 (Rat)1h

Chronic toxicity：

Product does not present a chronic toxicity hazard 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 of Directives 67/548/EC, 1999/45/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. SMOBIO shall not be held liable for any damage resulting from handling or from contact with the above product.