

www.smobio.com

Material Safety Data Sheet

(The format of the MSDS complies with Commission Directive 2001/58/EC as amended.)

1. IDENTIFICATION OF THE PREPARATION/SUBSTANCE AND OF THE COMPANY

Preparation Name: ExcelBand All Blue Protein Marker – buffered aqueous solution. Catalogue numbers of the product: PM1500 / PM1600 / PM1700

Use of the preparation:

For laboratory use. Suitable for use as molecular weight standards for SDS-PAGE electrophoresis.

Company identification:

SMOBiO, Inc. Center of Innovative Incubator for National Tsing Hua University 101, Sec. 2, Kuang-Fu Road, Hsinchu, 30013, Taiwan, R. O. C. Tel: +886 3 5720972 Fax: +886 3 5720916 e-mail: support@smobio.com

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredients:

Water	> 50 % (v/v)	EC#231-791-2	CAS#7732-18-5
Glycerol	12-32 % (v/v)	EC#200-289-5	CAS#56-81-5
Sodium Dodecyl Sulfate	1-3 %	EC#205-788-1	CAS#151-21-3
Urea	<23 %	EC#200-315-5	CAS#57-13-6
Tris- Phosphate	1-2 %	EC#230-260-2	CAS#6992-39-8

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.

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

3. HAZARDS IDENTIFICATION

The preparation is not classified as dangerous according to Directive 1999/45/EC or Directive 67/548/EC, and is not labelled with danger symbols or indications of danger.

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.

4. FIRST-AID MEASURES

Ingestion:

If swallowed, rinse mouth and throat thoroughly with water. Consult a doctor in event of any complaints.

Inhalation:

If inhaled, remove victim from area of exposure. If symptoms of irritation or respiratory allergy occur, consult a doctor.

Skin contact:

If symptoms of irritation after prolonged exposure occur, consult a doctor.

Eye contact:

In case of contact, wash out opened eyes with plenty of water for several minutes. Consult a doctor in event of any complaints.

5. FIRE-FIGHTING MEASURES

The preparation cannot cause fire.

Suitable extinguishing agents:

Water spray, Carbon Dioxide, dry chemical powder or appropriate foam.

Not suitable extinguishing agents:

None.

Special exposure hazards from decomposition products:

Not thoroughly investigated.

Protective equipment:

Wear self-contained breathing apparatus and protective clothing. 6. ACCIDENTAL RELEASE MEASURES

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.

Environmental precautions:

No special measures required.

Methods for cleaning up:

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

Additional information:

No dangerous substances are released.

7. HANDLING AND STORAGE

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.

Storage:

Store at - 20°C.

No other specific requirements relating to the preparation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that need to be monitored at the workplace.

General protective and hygienic measures:

The usual precautionary measures are the same as for chemicals handling.

Engineering measures:

No specific requirements relating to the preparation.

Personal protection:

Respiratory protection: No special measures required.

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

Eye protection: No need to wear glasses (goggles) when ordinary operations with the preparation. Safety glasses are recommended during certain operations when aerosol formation is possible.

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

9. 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/cm³.

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.

10. STABILITY AND REACTIVITY

Stability:

Stable under storage conditions (see Section 7).

Conditions to avoid:

No conditions which may cause dangerous reactions.

Possibility of hazardous reactions:

No dangerous reactions known.

Materials to avoid:

Strong oxidizing agents, strong bases.

Hazardous decomposition products:

No dangerous decomposition products known.

Hazardous polymerization:

Will not occur.

11. TOXICOLOGICAL INFORMATION

Routes of exposure:

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

Ingestion: Repeated ingestion or excessive dosage may be irritating.

Skin and eye contact: Prolonged contact may cause irritation.

Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12. ECOLOGICAL INFORMATION

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.

Persistence and degradability:

The preparation is readily biodegradable.

Bioaccumulative potential:

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

Other adverse effects:

Not applicable.

13. DISPOSAL CONSIDERATIONS

The disposal of the product does not present a danger.

No special disposal methods required, except to be in accordance with current local environmental regulations.

14. TRANSPORT INFORMATION

Special precautions:

Not applicable.

Proper shipping name:

Not dangerous goods according to transport regulations.

Transport regulations:

No additional transport regulations are known to the supplier.

IMDG: Non-hazardous for sea freight.

ADR: Non-hazardous for road transport.

RID: Non-hazardous for rail transport.

ICAO/IATA: Non-hazardous for air transport.

Other information:

The preparation may be stored in ice during the transportation.

15. 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 88/379/ECC, 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.