

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

**Product name :** 1X MOPS-SDS Running Buffer Powder, 1000 mL

**Product code :** BF2000

**Recommended use :** For laboratory use. Reconstitute with 1000 ml water to make 1X running buffer for electrophoresis.

**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](mailto: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**

**Classification according to Regulation (EC) No 1272/2008**

Flammable solids (Category 2), H228

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Specific target organ toxicity - repeated exposure, Inhalation (Category 2), Respiratory Tract, H373

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Long-term (chronic) aquatic hazard (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 Label elements**

**Symbol(s) :** Void

**Signal Word :** Warning

**Hazard statements:**

H302 + H332 Harmful if swallowed or if inhaled.

H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H335 May cause respiratory irritation.  
 H373 May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.  
 H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements:**

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
 P273 Avoid release to the environment.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.  
 P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.  
 P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**2.3 Other information**

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

**Human health hazards :**

Inhalation 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**

<u>Chemical name</u>	<u>Concentration</u>	<u>EC No.</u>	<u>CAS No.</u>	<u>Classification</u>
Sodium dodecyl sulfate	5.6 %	205-788-1	151-21-3	Flam. Sol. 2; Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; STOT SE 3; Aquatic Chronic 3; H228, H302, H315, H318, H332, H335, H412

EDTA	1.7 %	205-358-3	6381-92-6	Acute Tox. 4; STOT RE 2; Aquatic Chronic 3; H332, H373, H412
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### 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

Keep in a dry, cool and well-ventilated place.

## 8. Exposure controls/personal protection

### 8.1 Control parameters

<u>Chemical name</u>	<u>CAS No.</u>	<u>Exposure limits</u>
Sodium dodecyl sulfate	151-21-3	No data available
Tris	77-86-1	No data available
MOPS	1131-61-2	No data available
EDTA	6381-92-6	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:** Powder

**Color:** White

**Odor:** Odorless or weak.

**pH-value at 25°C:** Not applicable.

**Boiling point:** Not applicable.

**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:** Not applicable.

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

**Fat solubility:** Not applicable.

**Vapor density:** Not applicable.

**Evaporation rate:** Not applicable.

**Conductivity:** Not applicable.

**Viscosity:** Not applicable.

### 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.

<u>Chemical name</u>	<u>LD50 Oral</u>	<u>LD50 Dermal</u>	<u>LD50 Inhalation</u>
Tris	5900 mg/kg (Rat)		
Sodium dodecyl sulfate	1288 mg/kg(Rat)	580 mg/kg(Rat)	3900 mg/m <sup>3</sup> (Rat)1h
EDTA	2000 mg/kg (Rat)		
MOPS	316 mg/kg (Quail)		

**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****Chemical name****Ecotoxicity in water (EC50)**

Sodium dodecyl sulfate 117 mg/L, 96h (Pseudokirchneriella subcapitata)

EDTA 41 mg/L, 96h (Lepomis macrochirus)

The other components are 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.

**Other information:** The preparation may be stored in ice during the transportation.

**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 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 H-Statements referred to under sections 2 and 3

H228 Flammable solid.

H302 Harmful if swallowed.

H302 + H332 Harmful if swallowed or if inhaled.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

H412 Harmful to aquatic life with long lasting effects.

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.