



# MATERIAL SAFETY DATA SHEET

Company	ELPIS-Biotech. Inc.
Address	123-12 Jeonglim-dong, Seo-gu, Daejeon, Korea
Emergency Telephone NO	+82-42-581-8448
Fax	+82-42-581-8449
e-mail address	<a href="mailto:elpis@elpisbio.com">elpis@elpisbio.com</a>

## SECTION 1. CHEMICAL INFORMATION

Product name	Broad-range Pre-stained Markers (unstain)
Cat. No.	EBM-1034

Protein in buffer solution; buffer solution. Volume of product package: 500ul.

**Product Use** : Laboratory Reagent. For R&D use only. Not for drug, household or other uses.

### Manufacturer/ Supplier information

Supply company : ELPIS-Biotech. Inc.

Address : 123-12 Jeonglim-dong, Seo-gu, Daejeon, Korea

Information service or emergency call : +82-42-581-8448 (042-581-8448, Korea)

Department in charge : Research Department

## SECTION 2. HAZARDOUS IDENTIFICATION



### Primary routes of entry

Skin or eye contact from splashes. Inhalation of the vapor at room temperature is unlikely.

**Ingestion** Sodium dodecyl sulfate(SDS): Large doses may cause gastrointestinal distress, nausea and diarrhea.

**Skin contact** May cause irritation

**Eye contact** Irritating

**Evidence for reproductive toxicity, carcinogenicity and mutagenicity** No data available

### SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization : Mixtures

Description : Mixture of the substances listed below with nonhazardous additions.

#### Buffer's Components in Water:

Reagent	CAS#	Concentration, %
Tris-HCl	77-86-1	≤ 1
Sodium chloride	7647-14-5	≤ 0.2
Dithiothreitol (DTT)	3483-12-03	≤ 1
Glycerol	56-81-5	≤ 50
EDTA	6381-92-6	≤ 0.1
Sodium dodecyl sulfate (SDS)	151-21-3	≤ 2
Bromophenol blue	62625-28-9	≤ 0.01

### SECTION 4. FIRST AID MEASURES

#### After skin contact

Wash skin with water and soap and rinse thoroughly. Remove contaminated clothing. Get medical attention if irritating occurs.

#### After eye contact

Rinse opened eyes for several minutes under running water. Get medical attention if eyes become irritating.

#### After swallowing (ingestion)

Rinse mouth. Drink plenty of water. Get medical attention if irritating or symptoms occur

### SECTION 5. FIRE FIGHTING MEASURES

#### Extinguishing media

Water spray

Carbon dioxide, dry chemical powder or appropriate foam.

#### Special firefighting procedures

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

#### Unusual fire and explosions hazards

Emit toxic fumes under fire conditions

Prevent contact with skin and eyes.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions

Not required.

#### Environmental precautions

Do not allow entering sewers, surfaces or ground water.

#### Measures for cleaning / collecting

Collect spilled liquid with liquid-binding material or inert absorbent and place it in container for disposal. Wash spill site after material pickup is complete.

## SECTION 7. HANDLING AND STORAGE

### Handling

No special measures necessary. Good laboratory technique should be used when handling.

### Storage

No special measures necessary. Store at -20°C.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION □

### Exposure limits Eye protection Skin protection

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

Hygiene measures Breathing equipment

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Liquid.
<b>Color</b>	Bule
<b>Odor</b>	Odorless.
<b>Flash point</b>	> 392 F, > 200° C
<b>Explosive properties</b>	No data available.
<b>Vapor pressure</b>	< 1 MMHG @ 20°C

## SECTION 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable.
<b>Hazardous polymerization</b>	Will not occur
<b>Materials to Avoid</b>	Strong oxidizing agents, strong bases.
<b>Hazardous Decomposition Products:</b>	Carbon Monoxide, Carbon Dioxide
<b>Protect from heat</b>	

## SECTION 11. TOXICOLOGICAL INFORMATION

<b>Eye Contact:</b>	Irritating to eyes
<b>Skin Contact</b>	Irritating to skin.
<b>Multiple Routes</b>	May be harmful by inhalation, ingestion, or skin absorption
	Materials may be irritating to mucous membranes and upper respiratory tract.
	Preparations may cause allergic reactions in certain sensitive individuals.

## SECTION 12. ECOLOGICAL INFORMATION

Data not yet available

## SECTION 13. DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service to dispose of this material.

Observe all federal, state and local environmental regulations

Dissolve or mix the material with a combustable solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

## **SECTION 14. TRANSPORT INFORMATION**

Contact ELPIS Biotech, Inc. Company for Transportation Information.

## **SECTION 15. REGULATORY INFORMATION**

Korea regulatory information : None of the ingredients listed.

Reviews, standards and Regulations:

ACGIH TLV-TWA 10 MG/M3 DTLVS\* TLV/BEI, 1999

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATIONOR RE-REGISTER FEREAC 54, 7740, 1989. MSHA STANDARD: NUISANCE PARTICULATES (MIST)

Indication of danger : Not hazardous

R -phrase(s) : No information available

S -phrase(s) : No information available

International inventories

## **SECTION 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.

ELPIS Biotech Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Date of preparation of the first version : 2010. 12. 10.

Revised frequency and Date of preparation of the latest version : 2013. 06. 04. (2nd version)