# *Bromophenol blue loading dye*

# Safety data sheet

Prepared in accordance with Regulation (EC) No. 1907/2006 (REACH)

**Version 1.3 | Created: 14 January 2015 | Revised: 9 May 2016**

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

| | |
|---|---|
| **Product name and description** | Bromophenol blue loading dye |
| **Trade name/Brand** | Not applicable |
| **Synonym (s)** | None |
| **REACH Number** | Not applicable, mixture |
| **CAS Number** | Not applicable, mixture |
| **EC Number** | Not applicable, mixture |
| **Recommended use** | This product is a laboratory preparation for educational use only (See Section 16). It is added to nucleic acid solutions before they are loaded onto an electrophoresis gel. |
| **Uses advised against** | None. |
| **Supplier of the product and of this safety data sheet** | National Centre for Biotechnology Education (NCBE)<br>University of Reading<br>2 Earley Gate<br>Whiteknights<br>READING<br>RG6 6AU<br>United Kingdom<br><br>T: 0118 9873743<br>F: 0118 9750140<br>E: NCBE@reading.ac.uk<br>W: www.ncbe.reading.ac.uk |
| **Manufacturer of the product** | National Centre for Biotechnology Education (NCBE)<br>University of Reading<br>2 Earley Gate<br>Whiteknights<br>READING<br>RG6 6AU<br>United Kingdom<br><br>T: 0118 9873743<br>F: 0118 9750140<br>E: NCBE@reading.ac.uk<br>W: www.ncbe.reading.ac.uk |
| **Emergency telephone number** | 0118 9873743 (NCBE, University of Reading. 08.30–17.00 weekdays only) |

## SECTION 2. Hazards identification

**Classification according to Regulation (EC) No. 1272/2008 [CLP]** Unclassified

**Label elements** None required

**Other hazards** None

## SECTION 3. Composition/information on ingredients

| Name of component (Synonym) [CLP index number] | Weight (%) | EC (EINECS) number | CAS number | REACH registration number | Classification under Regulation (EC) No 1272/2008 [CLP]* |
|---|---|---|---|---|---|
| Water | ~49 | 231-791-2 | 7732-18-5 | – | – |
| Sucrose (α-D-glucopyranosyl-(1→2)-β-D-fructofuranoside) | ~50 | 200-334-9 | 57-50-1 | – | – |
| Bromophenol blue, sodium salt | 0.25 | 252-170-2 | 34725-61-6 | – | – |
| TRIS (Trometamol; tris(hydroxymethyl)aminomethane; 2-Amino-2-hydroxymethyl-propane-1,3-diol) | 0.12 | 201-064-4 | 77-86-1 | – | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>STOT SE 3 (H335) |

** Note that these classifications refer to the pure (100%) substances, not to the mixture supplied. (The proportion of TRIS in the product is almost 10 times less than that required to trigger safety labelling).*

For the full text of the safety classifications (R phrases and H statements), refer to Section 16.

## SECTION 4. First Aid measures

**General information** This mixture is not hazardous.

**Inhalation** Move the victim to fresh air. If the victim has stopped breathing artificial respiration and/or oxygen may be necessary. Call a doctor immediately.

**Skin contact** Rinse the affected area with water.

**Eye contact** Check for and remove contact lenses if present. Rinse opened eye immediately with running water, also wash under the eyelids, for several minutes. Seek medical advice if irritation occurs.

**Ingestion** No action necessary.

**Self-protection of the first aider** Rinse your hands with water if you spill loading dye on them.

**Most important symptoms and effects, both acute and delayed** Not applicable.

**Indication of any immediate medical attention and special treatment** Not applicable.

**Advice to doctor** Treat symptomatically.

## SECTION 5. Fire-fighting measures

**Extinguishing media**
Not applicable.

**Special hazards arising from the substance or mixture**
None known.

**Advice for firefighters**
Not applicable.

## SECTION 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Not applicable.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so.

**Methods and material for containment and cleaning up**
Wipe up any spills of the solution with absorbent material (*e.g.*, paper towels) and water. Dispose of the paper towels in the normal waste.

**Reference to other sections**
See Section 13 for disposal instructions.

## SECTION 7. Handling and storage

**Precautions for safe handling**
Wear a lab coat to prevent spills from damaging clothing.

**Conditions for safe storage, including any incompatibilities**
Keep tightly closed at room temperature. Do not refrigerate or freeze.

**Specific end use(s)**
Loading dye is added to nucleic acid solutions before they are loaded onto an electrophoresis gel.

## SECTION 8. Exposure control/personal protection

### Control parameters

| | |
|---|---|
| **Exposure limits** | The product as supplied does not contain any hazardous materials with occupational exposure limits established by regulatory bodies. |
| **Biological limit values** | The product as supplied does not contain any hazardous materials with occupational exposure limits established by regulatory bodies. |
| **Derived no effect level** | No information available. |
| **Predicated no effect level** | No information available. |

## SECTION 9. Physical and chemical properties

| | |
|---|---|
| **Appearance** | Dark blue colour. |
| **Physical state** | Viscous, sticky liquid. |
| **Odour** | Odourless. |
| **Odour threshold** | Does not apply, as the mixture is odourless. |
| **pH** | 8.0 @ 20 °C |
| **Melting point / Range** | No data available. |
| **Boiling point / Range** | > 100 °C @ 760 mm Hg. |
| **Flash point** | Not applicable; does not flash. |
| **Evaporation rate** | No data available. |
| **Flammability (solid, gas)** | Not applicable as the mixture is a liquid. |
| **Explosion limits** | No data available. |
| **Vapour pressure** | No data available. |
| **Vapour density** | No data available. |
| **Density @ 20 °C** | ~ 2 g / ml |
| **Relative density** | Not applicable as the mixture is a liquid. |
| **Solubility in water** | Readily soluble. |
| **Solubility in other solvents** | No data available. |
| **Partition coefficient: n-octanol/water** | No data available. |
| **Autoignition temperature** | No data available. |
| **Decomposition temperature** | No data available. |
| **Viscosity** | No data available. |
| **Explosive properties** | No data available. |
| **Oxidising properties** | No data available. |

**Other information**
No additional information relevant to the safe use of the substance.

## SECTION 10. Stability and reactivity

| | |
|---|---|
| **Reactivity** | No information available. |
| **Chemical stability** | When stored at room temperature, the product is stable. |
| **Possibility of hazardous reactions** | No known hazardous reactions. |
| **Conditions to avoid** | Do not freeze or refrigerate. |
| **Incompatible materials** | No information available. |
| **Hazardous decomposition products** | No hazardous decomposition products. |

## SECTION 11. Toxicological information

| | |
|---|---|
| **Acute toxicity** | No information available. |
| **Irritation** | No information available. |
| **Corrosivity** | No information available. |
| **Sensitisation** | No information available. |
| **Repeated dose toxicity** | No information available. |
| **Carcinogenicity** | No information available. |
| **Mutagenicity** | No information available. |
| **Toxicity for reproduction** | No information available. |

## SECTION 12. Ecological information

| | |
|---|---|
| **Toxicity** | No information available. |
| **Persistence and degradability** | No information available. |
| **Bioaccumulative potential** | No information available. |
| **Mobility in soil** | No information available. |
| **Results of PBT and vPVB assessment** | No information available. |
| **Other adverse effects** | None known. |

## SECTION 13. Disposal considerations

| | |
|---|---|
| **Waste from residues/unused product** | Wash down a foul water drain with water. Wipe up any spills of the solution with absorbent material (*e.g.*, paper towels) and water. Dispose of the paper towels in the normal waste. |
| **Contaminated packaging** | Dispose of in normal waste according to local regulations. The containers are made of polypropylene and can be recycled. |

## SECTION 14. Transport information

| | |
|---|---|
| **UN number** | Not applicable. |
| **UN proper shipping name** | Not applicable. |
| **Transport hazard class** | Not applicable. |
| **Packaging group** | Not applicable. |
| **Environmental hazards** | Not applicable. |

## SECTION 15. Regulatory information

Not regulated.

Schools and colleges in the UK should refer to *Topics in Safety*, which includes chapters on both practical microbiology and work with DNA: *Topics in safety* (2001) [Third edition] Association for Science Education. ISBN: 0863573169.

An updated (October 2014) version of Chapter 16, covering work with DNA, can be found on the NCBE's web site: **www.ncbe.reading.ac.uk** and on the Association for Science Education's web site: **www.ase.org.uk**

## SECTION 16. Other information

**Full text of GHS hazard statements**

| | |
|---|---|
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |

Please refer to the Teacher's guide that accompanies the NCBE kit you are using the loading dye with. This can be downloaded from the NCBE's Web site: **www.ncbe.reading.ac.uk**

The information given in this Safety Data Sheet is based on the present state of our knowledge.

This Safety Data Sheet has been compiled and is solely intended for this product.

This Safety Data Sheet was revised on 1 June 2015, when the older (67/548/EEC [DSD]) safety classifications were deleted. It was further revised on 9 May 2016 to delete part of a section that had been duplicated in error.

**END OF SAFETY DATA SHEET**