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.

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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

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

* 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

<table>
<thead>
<tr>
<th>Control parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure limits</td>
<td>The product as supplied does not contain any hazardous materials with occupational exposure limits established by regulatory bodies.</td>
</tr>
<tr>
<td>Biological limit values</td>
<td>The product as supplied does not contain any hazardous materials with occupational exposure limits established by regulatory bodies.</td>
</tr>
<tr>
<td>Derived no effect level</td>
<td>No information available.</td>
</tr>
<tr>
<td>Predicated no effect level</td>
<td>No information available.</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>UN number</th>
<th>Not applicable.</th>
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</thead>
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<tr>
<td>UN proper shipping name</td>
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</tr>
<tr>
<td>Transport hazard class</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Packaging group</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

SECTION 15. Regulatory information

Not regulated.


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](http://www.ncbe.reading.ac.uk) and on the Association for Science Education’s web site: [www.ase.org.uk](http://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](http://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