UN GHS REVISION 7

Safety Data Sheet
Toluidine Blue in Borax

Version 1.0, Date of issue: 2026-08-13

SECTION 1: Identification

1.1 GHS Product identifier

Product name	Toluidine Blue in Borax
Product number	TOLB1-100M, 500ML 1L, 2.5L, 5L
Brand	Hurstchem

1.3 Recommended use of the chemical and restrictions on use

Laboratory Reagent

1.4 Supplier's details

Name	Hurst Scientific
Address	2 Transit Place, 6112 Forrestdale WA, Australia
Telephone	1300 778 068
email	sales@hurstscientific.com.au

1.5 Emergency phone number

Australian Poisons Information Centre 13 11 26
Australian Emergency Services 000

SECTION 2: Hazard identification

General hazard statement

Classified as a Hazardous substance according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Classified as NON-Dangerous goods according to the ADG Code for the Transport of Dangerous Goods by Road and Rail (7th Edition).

2.1 Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Reproductive Toxicity, Cat. 1B

2.2 GHS label elements, including precautionary statements

Pictograms

1. Health hazard

Signal word **Danger**

Hazard statement(s)

H360FD	May damage fertility. May damage the unborn child.

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

2.3 Other hazards

No information available on PBT / vPvB status or endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Component	Concentration
Disodium tetraborate decahydrate (CAS: 1303-96-4)	**1%**
CLASSIFICATIONS: Reproductive Toxicity, Cat. 1B. **HAZARDS:** H360FD - May damage fertility. May damage the unborn child.	
Water (CAS: 7732-18-5)	**98%**
Toluidine Blue O (CAS: 92-31-9)	**1%**

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

Eye contact

Flush eyes with copious amounts of water for at least 15 minutes. If irritation develops or persists, seek medical attention.

Skin contact

Remove contaminated clothing and wash affected area with soap and water thoroughly. If irritation develops, seek medical attention.

Inhalation

Evacuate to fresh air immediately. If unconscious, place in recovery position and provide artificial respiration if breathing ceases. Seek medical attention.

Ingestion

DO NOT induce vomiting. Wash mouth out with copious amounts of water and seek medical attention.

First-aid facilities

Eye wash station, safety shower and First Aid kit.

4.2 Most important symptoms and effects, both acute and delayed

The most important symptoms and effects are described in Section 2 (hazard statements) and Section 11 (toxicological information).

4.3 Indication of immediate medical attention and special treatment needed

Treat symptomatically. For advice, contact the Poisons Information Centre (Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use an extinguishing medium suitable for the surrounding fire and other material involved. Water spray, dry chemical powder, carbon dioxide or foam.

5.2 Specific hazards arising from the chemical

Combustion may produce toxic and irritating gases.

5.3 Special protective actions for fire-fighters

Fire fighters should wear self-contained breathing apparatus (SCBA) operated in positive-pressure mode and full protective clothing. Fight the fire from a safe location.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid contact with skin and eyes. Wear suitable protective equipment (see Section 8). Evacuate non-essential personnel from the area.

6.2 Environmental precautions

Prevent the spill from entering drains, sewers and waterways. In the event of a major spill, contain the material and notify the relevant authorities.

6.3 Methods and materials for containment and cleaning up

Contain the spill and prevent entry into drains, sewers and waterways. Absorb with inert absorbent material (e.g. sand, vermiculite or earth) and transfer to a suitable, labelled container for disposal. Rinse the affected area with water. Dispose of in accordance with Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area. Keep containers tightly closed and upright when not in use. Store away from incompatible materials (see Section 10). Inspect containers regularly for damage or leaks.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Disodium tetraborate decahydrate (CAS: 1303-96-4)
AU/SWA (AU): TWA: 5 mg/m³

Water (CAS: 7732-18-5)
AU/SWA (AU): No occupational exposure limit established.

Toluidine Blue O (CAS: 92-31-9)
AU/SWA (AU): No occupational exposure limit established.

8.2 Appropriate engineering controls

Ensure an adequate ventilation or exhaust system is in place.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standard AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand protection

Use occupational protective gloves complying with AS 2161 (Selection, Use and Maintenance).

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapour/mist filter should be used. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Blue liquid
Colour	No data available
Odour	No data available
Odour threshold	No data available
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
Flammability	No data available
Lower and upper explosion limit/flammability limit	No data available
Flash point	No data available
Explosive properties	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Oxidising properties	No data available
pH	No data available
Kinematic viscosity	No data available
Solubility	Soluble
Partition coefficient n-octanol/water (log value)	No data available
Vapour pressure	No data available
Evaporation rate	No data available
Density and/or relative density	No data available
Relative vapour density	No data available
Particle characteristics	No data available
Supplemental information regarding physical hazard classes	No data available
Further safety characteristics (supplemental)	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Non-reactive under recommended conditions for use and storage.

10.2 Chemical stability

Stable under recommended conditions for use and storage.

10.3 Possibility of hazardous reactions

None under normal use conditions.

10.4 Conditions to avoid

Temperature extremes and direct sunlight.

10.5 Incompatible materials

Strong oxidisers, metals and strong bases.

10.6 Hazardous decomposition products

Toxic gases may evolve.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

2660 mg/kg (rat, LD50 oral) (Disodium tetraborate decahydrate)

Skin corrosion/irritation

Not expected to be a skin irritant.

Serious eye damage/irritation

Not expected to be an eye irritant.

Respiratory or skin sensitisation

Not expected to be a respiratory or skin sensitiser.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Cancer Classification: Group E Evidence of Non-carcinogenicity for Humans; A4; Not classifiable as a human carcinogen.

Reproductive toxicity

May damage fertility or the unborn child.

Specific target organ toxicity (STOT) - single exposure

Not expected to cause toxicity to a specific target organ.

Specific target organ toxicity (STOT) - repeated exposure

Not expected to cause toxicity to a specific target organ through repeated exposure.

Aspiration hazard

Not expected to be an aspiration hazard.

SECTION 12: Ecological information

Toxicity

LC50; Species: Oncorhynchus mykiss (Rainbow Trout); Concentration: 54 ppm (hard water; exposure was initiated subsequent to fertilisation and maintained through 4 days posthatching.); LC50; Species: Ictalurus punctatus (Catfish); Concentration: 155 ppm (soft water; exposure was initiated subsequent to fertilisation and maintained through 4 days post-hatching.); LC50; Species: Ictalurus punctatus (Catfish); Concentration: 71 ppm (hard water; exposure was initiated subsequent to fertilisation and maintained through 4 days post-hatching.) (Disodium tetraborate decahydrate)

Persistence and degradability

No biotransformation processes have been reported for boron compounds

Bioaccumulative potential

Not expected to bio-accumulate

Mobility in soil

No data available

Results of PBT and vPvB assessment

No data available

Endocrine disrupting properties

No data available

Other adverse effects

No data available

SECTION 13: Disposal considerations

Product disposal

Dispose of in accordance with local authority guidelines.

Packaging disposal

Dispose of in accordance with local authority guidelines.

Waste treatment

Dispose of in accordance with local authority guidelines.

Sewage disposal

Do not contaminate drains and waterways.

Other disposal recommendations

Nil.

SECTION 14: Transport information

ADG (Australian Dangerous Goods Code, 7th Edition)

Not classified as dangerous goods according to the ADG Code for the Transport of Dangerous Goods by Road and Rail (7th Edition).

IMDG (International Maritime Dangerous Goods Code)

Not classified as dangerous goods according to the IMDG Code.

IATA (International Air Transport Association Dangerous Goods Regulations)

Not classified as dangerous goods according to the IATA Dangerous Goods Regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Disodium tetraborate decahydrate (CAS: 1303-96-4)

Australia SUSMP — Poison Schedule: Not Scheduled (NS)

Water (CAS: 7732-18-5)

Australia SUSMP — Poison Schedule: Not Scheduled (NS)

Toluidine Blue O (CAS: 92-31-9)

Australia SUSMP — Poison Schedule: Not Scheduled (NS)

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this product.

SECTION 16: Other information

16.1 Further information/disclaimer

References

1. Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, (June 2023).
2. Safe Work Australia, National Code of Practice for the Labelling of Workplace Hazardous Chemicals (2015).
3. Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants (2013).
4. National Transport Commission Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code), Volume 1, Edition 7.9 (2023).
5. Standards Australia, Dangerous Goods Initial Emergency Response Guide: Australian Handbook (SAA/SNZ HB76); Homebush (2004).

16.2 Preparation information

This SDS is prepared in accordance with the Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, (June 2023). The information contained within is believed to be accurate at the date of preparation/review. Hurst Scientific makes no claims of the accuracy or completeness of the information and excludes all liability for any loss or damage related to the supply or use of the information in this safety data sheet. It is recommended the user make their own determinations as to the suitability of the information provided to the application in which the product is to be used. Copyright © 2026 Hurst Scientific