UN GHS REVISION 7

Safety Data Sheet
pH Buffer 10

Version 1.0, Date of issue: 2026-08-14

SECTION 1: Identification

1.1 GHS Product identifier

Product name	pH Buffer 10
Product number	BUF10
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

- Corrosive to metals, Cat. 1
- Skin corrosion/irritation, Cat. 2
- Serious eye damage/eye irritation, Cat. 2A
- Reproductive Toxicity, Cat. 1B

2.2 GHS label elements, including precautionary statements

Pictograms

1. Corrosion; 2. Exclamation mark; 3. Health hazard

Signal word

Danger

Hazard statement(s)

H290	May be corrosive to metals.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
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.
P234	Keep only in original packaging.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see supplemental first-aid instructions on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing. And wash it before reuse.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.
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
Toluene (CAS: 108-88-3)	**1%**
CLASSIFICATIONS: Flammable Liquid, Cat. 2; Skin Corrosion/Irritation, Cat. 2; Reproductive Toxicity, Cat. 2; STOT – Single Exposure (narcotic effects), Cat. 3; STOT – Repeated Exposure, Cat. 2; Aspiration Hazard, Cat. 1. **HAZARDS:** H225 - Highly flammable liquid and vapour; H315 - Causes skin irritation; H361d - Suspected of damaging the unborn child; H336 - May cause drowsiness or dizziness; H373 - May cause damage to organs through prolonged or repeated exposure; H304 - May be fatal if swallowed and enters airways.	
Disodium tetraborate decahydrate (CAS: 1303-96-4)	**1%**
CLASSIFICATIONS: Reproductive Toxicity, Cat. 1B. **HAZARDS:** H360FD - May damage fertility. May damage the unborn child.	
Sodium hydroxide (CAS: 1310-73-2)	**1%**
CLASSIFICATIONS: Skin Corrosion/Irritation, Cat. 1A. **HAZARDS:** H314 - Causes severe skin burns and eye damage.	
Water (CAS: 7732-18-5)	**97%**

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

The product will not burn or support combustion. Heating or fire may produce irritating or toxic gases, including oxides of carbon, boron and sodium.

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

Toluene (CAS: 108-88-3)
AU/SWA (AU): TWA: 50 ppm (191 mg/m³); STEL: 150 ppm (574 mg/m³); Notes: Sk

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

Sodium hydroxide (CAS: 1310-73-2)
AU/SWA (AU): TWA: 2 mg/m³

Water (CAS: 7732-18-5)
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	Clear or Coloured with Dye
Colour	No data available
Odour	Nil
Odour threshold	No data available
Melting point/freezing point	0 °C
Boiling point or initial boiling point and boiling range	100°C
Flammability	No data available
Lower and upper explosion limit/flammability limit	No data available
Flash point	Not flammable
Explosive properties	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Oxidising properties	No data available
pH	10
Kinematic viscosity	No data available
Solubility	Water 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	1 g/mL
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

Polymerisation will not occur.

10.4 Conditions to avoid

Heat and strong sunlight incompatibles.

10.5 Incompatible materials

Alkalis and acids.

10.6 Hazardous decomposition products

Thermal decomposition or combustion may produce oxides of carbon, boron and sodium.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Oral LD_{50}: 2660 mg/kg; Dermal LD_{50}: 14100 uL/kg (rabbit, LD50 skin) (Toluene); 49 gm/m3/4H (rat, LC50 inhalation) (Toluene)

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Not expected to be a respiratory or skin sensitiser.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not classifiable as to its carcinogenicity to humans

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

EC50; Species: Scenedesmus subspicatus (Green Algae) Exponential Growth Phase; Conditions: freshwater, static, 24 °C, pH 8.0-9.3; Concentration: 160000 µg/L for 48 hr; Effect: population, decreased biomass; EC50; Species: Scenedesmus subspicatus (Green Algae) Exponential Growth Phase; Conditions: freshwater, static, 24 °C, pH 8.0-9.3; Concentration: 125000 µg/L for 48 hr; Effect: population changes, general; EC50; Species: Pseudokirchneriella subcapitata (Green Algae) Exponential Growth Phase; Conditions: freshwater, static; Concentration: 9400 µg/L for 8 days; Effect: growth, general (Toluene)

Persistence and degradability

AEROBIC: Toluene is readily degradable in a variety of standard biodegradability tests using sewage seed or sludge inoculums. Degradation has been observed in several die-away tests using seawater or estuarine water. The degradation rate is much faster in systems which have been contaminated by oil. Complete degradation has been observed in 4 days and 22 days in a marine mesocosm with summer and spring conditions, respectively, and 10 days in a 1% gas oil mixture in a North Sea coast water inoculum. A 90 day half-life in uncontaminated estuarine water was reduced to 30 days in oil-polluted water. The half-life in water collected near Port Valdez, Alaska was 12 days. 1.5 mM and 3 mM Ring-labeled toluene added to a methanogenic inoculum originally enriched from sewage sludge and incubated at 35 °C for 60 days resulted in 3.6 and 4.5% 14-C final activity respectively. Toluene, present at 100 mg/L, reached 123% of its theoretical BOD in 2 weeks using an activated sludge inoculum at 30 mg/L in the Japanese MITI test

Bioaccumulative potential

The BCF of toluene in eels (Anguilla japonica) was reported as 13 and the BCF in golden ide (Leuciscus idus melanotus) was reported as 90. According to a classification scheme, these BCF values suggest the potential for bioconcentration in aquatic organisms is low to moderate

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

Toluene (CAS: 108-88-3)

Australia SUSMP — Poison Schedule: Not Scheduled (NS)

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

Australia SUSMP — Poison Schedule: Not Scheduled (NS)

Sodium hydroxide (CAS: 1310-73-2)

Australia SUSMP — Poison Schedule: Schedule 5

Water (CAS: 7732-18-5)

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.