



**Safety Data Sheet**  
**Buffered Formal Saline 20%**

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**SECTION 1: Identification****GHS Product identifier**

Product name	Buffered Formal Saline 20%
Product number	BFS-500M, 1L, 2.5L, 5L, 10L, 20L
Brand	Hurstchem

**Recommended use of the chemical and restrictions on use**

Laboratory Reagent

**Supplier's details**

Name	Hurst Scientific
Address	2/36 Hensbrook Loop 6112 Forrestdale WA Australia
Telephone	1300 778 068
email	sales@hurstscientific.com.au

**Emergency phone number**

Australian Poisons Information Centre 131 126  
Australian Emergency Services 000

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

**Classification of the substance or mixture**

- Acute toxicity, oral, Cat. 4
- Skin corrosion/irritation, Cat. 2
- Serious eye damage/eye irritation, Cat. 1
- Skin sensitizer, Cat. 1

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- Germ cell mutagenicity, Cat. 2
- Carcinogenicity, Cat. 1
- Specific target organ toxicity following single exposure, Cat. 2

### GHS label elements, including precautionary statements.

#### Pictograms



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

#### Signal word

**Danger**

#### Hazard statement(s)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H341	Suspected of causing genetic defects [route]
H350	May cause cancer [route]
H371	May cause damage to organs [organs, route]
H360	May damage fertility or the unborn child [effect, route]

#### Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P233	Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P330	Rinse mouth.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
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+P311	IF exposed or concerned: Call a POISON CENTER/doctor/...
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to ...

#### Other hazards which do not result in classification.

No data available.

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## SECTION 3: Composition/information on ingredients

### Mixtures

### Components

#### 1. Formaldehyde

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Concentration	< 8 % (weight)
CAS no.	50-00-0

#### 2. Potassium phosphate Monobasic

Concentration	< 1 % (weight)
CAS no.	7778-77-0

#### 3. Sodium phosphate dibasic

Concentration	< 1 % (weight)
CAS no.	7558-79-4

#### 4. Water

Concentration	Balance
CAS no.	7732-18-5

#### 5. Sodium chloride

Concentration	< 8.5 % (weight)
CAS no.	7647-14-5

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## SECTION 4: First-aid measures

### Description of necessary first-aid measures

If inhaled	Evacuate to fresh air immediately. Seek medical attention. If unconscious place in recovery position, provide artificial respiration if breathing ceases.
In case of skin contact	Remove contaminated clothing and wash affected area with soap and water thoroughly. If irritation develops, seek medical attention.
In case of eye contact	Flush eyes with copious amounts of water for at least 15 minutes. If irritation develops or persists, seek medical attention.
If swallowed	DO NOT induce vomiting. If a small amount has been swallowed, dilute the stomach by consuming copious amounts of water. For large volumes seek immediate medical attention.

### Indication of immediate medical attention and special treatment needed, if necessary

First aid facilities Eye wash station, safety shower and First Aid kit.  
Advice to Doctor Treat symptomatically.

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## SECTION 5: Fire-fighting measures

### Suitable extinguishing media

Use media suitable for other material involved in fire.

### Specific hazards arising from the chemical.

Toxic gases may evolve.

### Special protective actions for fire-fighters

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Wear SCBA (Self-Contained Breathing Apparatus) and full protective equipment.

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## SECTION 6: Accidental release measures

### Personal precautions, protective equipment, and emergency procedures

Wear appropriate protective clothing. Ensure adequate ventilation. If possible, contain the spill. Evacuate all unnecessary personnel.

### Methods and materials for containment and cleaning up.

Absorb with vermiculite or similar and place into a suitably labelled container. Dispose of waste according to local authority guidelines. Wash the affected area with a large volume of water. Do not contaminate drains or waterways.

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## SECTION 7: Handling and storage

### Precautions for safe handling

Use only in an adequately ventilated area. Avoid breathing in mists or vapours. Wear appropriate protective clothing to avoid any exposure and practice good personal hygiene.

### Conditions for safe storage, including any incompatibilities.

Store in a cool, dry, well-ventilated area away from direct sunlight.

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## SECTION 8: Exposure controls/personal protection

### Control parameters

#### CAS: 50-00-0

Formaldehyde

AU/SWA: 2ppm STEL inhalation; 1ppm TWA inhalation

### Appropriate engineering controls

Ensure adequate ventilation to maintain airborne concentrations below national exposure standards.

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

#### Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirators when necessary.

#### Eye/face protection

Safety glasses or goggles,

#### Skin protection

Chemical-resistant gloves and laboratory coat.

#### Environmental exposure controls

Biological Limit Values Not available for this product.

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## SECTION 9: Physical and chemical properties

### Basic physical and chemical properties

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Physical state	Liquid
Appearance	Colourless liquid
Colour	Clear or Coloured with Dye
Odor	Pungent
Melting point/freezing point	-8°C
Boiling point or initial boiling point and boiling range	98°C
Flammability	Non-flammable
Lower and upper explosion limit/flammability limit	Not available
pH	7
Solubility	Water Soluble
Vapor pressure	Not available.
Density and/or relative density	1.09g/cm <sup>3</sup>
Relative vapor density	Not available.

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## SECTION 10: Stability and reactivity

### Reactivity

Non-reactive under recommended conditions for use and storage.

### Chemical stability

Stable under recommended conditions for use and storage.

### Possibility of hazardous reactions

Polymerisation will not occur.

### Conditions to avoid.

Heat and incompatibles.

### Incompatible materials

Strong oxidisers, alkalis, and acids.

### Hazardous decomposition products

Toxic gases may evolve.

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## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

Eye Contact May cause irritation in the form of redness, itching and watering and serious damage.

Skin contact May cause inflammation, itching, reddening and possible blistering. Prolonged or repeated exposure may cause allergic skin reaction.

Inhalation Lung irritant if inhaled. May cause coughing, shortness of breath, dizziness, and headaches.

Ingestion Gastrointestinal tract and throat may be irritated. May also result in abdominal pain, vomiting and bloody diarrhoea.

#### Skin corrosion/irritation

No data available.

#### Serious eye damage/irritation

No data available.

#### Respiratory or skin sensitization

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May cause dermatitis and allergic skin reactions.

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

Formaldehyde is classified as a Category 1 Carcinogen (IARC) – Carcinogenic to humans.

#### Reproductive toxicity

No data available.

#### Specific target organ toxicity (STOT) - single exposure.

No data available.

#### Specific target organ toxicity (STOT) - repeated exposure.

No data available.

#### Aspiration hazard

No data available.

#### Additional information

TOXICITY DATA:

Formaldehyde: Oral, Rat (LD50): >200mg/kg

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## SECTION 12: Ecological information

#### Toxicity

No data available.

#### Persistence and degradability

No data available.

#### Bioaccumulate potential

Not expected to bio-accumulate.

#### Mobility in soil

No data available.

#### Other adverse effects

Environmental fate (exposure) Do not contaminate drains and waterways.

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## SECTION 13: Disposal considerations

#### Disposal methods

##### Product disposal

Dispose of in accordance with local authority guidelines.

##### Packaging disposal

Dispose of in accordance with local authority guidelines.

#### Other disposal recommendations

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Special precautions Nil.

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### SECTION 14: Transport information

UN Number	None
UN Proper Shipping Name	None
Transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None
Transport in bulk according to IMO instruments	None

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### SECTION 15: Regulatory information

#### Chemical Safety Assessment

- Poison Schedule: S6
- TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight hour working day, for a five-day week.
- STEL (Short Term Exposure Limit): The average airborne concentration over a 15-minute period which should not be exceeded at any time during a normal eight-hour workday.

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### SECTION 16: Other information

#### Further information/disclaimer

This SDS is prepared in accordance with the Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, (2011). 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 material 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 © 2023 Hurst Scientific

#### Preparation information

##### References

1. Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, (2011).
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); Can print: Canberra (2007), Volume 1, 7th Edition.
5. Standards Australia, Dangerous Goods Initial Emergency Response Guide: Australian Handbook (SAA/SNZ HB76); Homebush (2004).