

Safety Data Sheet

1. IDENTIFICATION OF THE PRODUCT AND THE SUPPLIER

1.1 Product identifiers

Product name : SODIUM TETRABORATE

1.2 Other means of identification

Water softener, borax, sodium borate, disodium tetraborate, sodium tetraborate decahydrate.

1.3 Recommended use of the product and restrictions on use

Swimming pool chemical, water treatment, enamel, ceramics & glass manufacturing, rheology modifier.

Details of supplier of the safety data sheet

Company : AGent Sales & Services Pty Ltd

Street address : 38 May Holman Drive, Bassendean, Western Australia 6054

Telephone : (+61 8) 6270 4500

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1.4 Emergency telephone number

Telephone : 1300 883 844

2. HAZARDS IDENTIFICATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

HAZARDOUS according to the criteria of the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals & Safe Work Australia.

2.1 GHS Classification

Toxic to reproduction (Category 1B)

Serious Eye Damage/Irritation (Category 2A)

GHS Label elements, including precautionary statements



Signal word : DANGER

Hazard statement(s)

H360 May damage fertility or the unborn child

H319 Causes serious eye irritation

Precautionary Statement(s)

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.
P264 Wash exposed skin thoroughly after handling.
P280 Wear eye protection/face protection.
P281 Use personal protective equipment as required.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P308 + P313 If exposed or concerned: Get medical advice/attention.

Storage:

P405 Store locked up

Disposal:

P501 Dispose of contents/container in accordance with appropriate regulations.

2.2 Other hazards

None.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	Classification	Concentration (%)
Sodium Tetraborate	1303-96-4	H319 – Ser. Eye. Dam H360 – Dam. Fertility	> 99

For the full text of the H-Statements mentioned in this section, see Section 16

4. FIRST AID MEASURES

4.1 Description of First Aid measures

General advice

Contact the Poisons Information Centre (Phone: Australia 131 126; New Zealand 0800 764 766) or consult a doctor/physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

In case of skin contact

If skin or hair contact occurs, remove contaminated clothing and wash skin and hair with soap and water. If irritation occurs seek medical advice.

In case of eye contact

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

If swallowed

Rinse mouth thoroughly with water immediately. Give plenty of water to drink. Do not induce vomiting. Seek medical advice if effects persist.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in Section 2.2 and/or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

4.4 First Aid facilities

Eye wash facilities and safety shower should be available.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Non-flammable solid; however, if material is involved in a fire, use extinguishing media appropriate to surrounding fire conditions.

5.2 Special hazards arising from the chemical

Non-combustible solid. Decomposes on heating emitting toxic fumes including those of oxides of sodium and oxides of boron.

5.3 Special protective equipment and precautions for fire fighters

Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, trousers, boots and gloves).

5.4 Hazchem code

Not applicable

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. If contamination of sewers or waterways has occurred, advise local emergency services. Observe all local and national regulations.

6.3 Methods and materials for containment and cleaning up

Slippery when spilt. Avoid accidents, clean up immediately. Eliminate all sources of ignition. Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Avoid generating dust. Transfer to a suitable, labelled container and dispose of promptly

7. HANDLING AND STORAGE

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

7.1 Precautions for safe handling

Ensure an eye wash and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash clothes and exposed skin thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in Section 10.

This material is not classified as a Dangerous Goods by the criteria of the ADG.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters - Occupational Exposure Limits

Borates, tetra, sodium salts (decahydrate): 8hr TWA = 5 mg/m³

Exposure standard for dust not otherwise specified:

Chemical Name	Reference	TWA – Peak Limitation		STEL		Carcinogen Category	Notices
		ppm	mg/m ³	ppm	mg/m ³		
Inspirable dust	ASCC		10			-	-
Respirable dust	ASCC		3				

As published in "Workplace Exposure Standards for Airborne Contaminants, December 2011" by SWA.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Ensure ventilation is adequate to maintain air concentrations below

Exposure Standards. If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Personal protective equipment (PPE)

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods and environmental factors.

Eye/face protection

Safety glasses, splash goggles (AS/NZS 1336 & 1337).

Skin protection

Wear protective gloves (rubber or PVC), long-sleeved protective clothing and safety footwear appropriate for the risk of exposure (AS 2161 and AS/NZS 2210). Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use. Wash and dry hands.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a P1 or P2 particulate respirator when handling this product (AS/NZS 1715 & 1716).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Form : Solid Colour : white
Odour:	Odourless
Odour Threshold:	No data available
pH:	9.2 (10 g/L @ 20 °C)
Melting Point:	62 °C
Boiling Point/Range:	1575 °C
Decomposition Temperature:	No data available
Evaporation Rate:	No data available
Flash Point:	Not applicable
Flammability Limits:	Not applicable
Density:	1.71
Vapour Density (air=1):	No data available
Vapour Pressure:	No data available
% Volatiles:	No data available
Solubility in water:	47 g/L (@ 20 °C)

10. STABILITY AND REACTIVITY

10.1 Reactivity

Hygroscopic. Reacts with light alloys to form hydrogen.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reactive with moisture. Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Keep away from heat and sources of ignition. Protect from moisture. Avoid dust generation. Avoid exposure to direct sunlight. Avoid exposure to moisture.

10.5 Incompatible materials

Incompatible with reducing agents and base metals.

10.6 Hazardous decomposition products

Oxides of sodium. Oxides of boron.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Oral LD50 (rat): 4,500 - 5,000 mg/kg

Dermal LD50 (rabbit): >10,000 mg/kg

Skin corrosion/irritation

May cause mechanical irritation.

Serious eye damage/eye irritation

Irritant.

Respiratory or skin sensitisation

No known effect.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

May damage fertility or the unborn child.

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

Health Effects

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Eye contact : May cause irritation, redness, pain and conjunctivitis.

Skin contact : Contact may cause irritation and/or dermatitis.

Ingestion : May cause irritation and digestive discomfort. Symptoms include nausea and diarrhoea.

Inhalation : May cause mucous membrane irritation and coughing.

11.2 Information on possible routes of exposure

The substance can be absorbed into the body by inhalation of its dust, ingestion, skin and/or eye contact.

11.3 Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Avoid contaminating waterways.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

Not expected to bioconcentrate or bioaccumulate.

12.4 Mobility in soil

No data available.

12.5 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Disposal methods and containers

Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

13.3 Special precautions for landfill or incineration

Contact a specialist disposal company or the local waste regulator for advice.

14. TRANSPORT INFORMATION

NOT classified as a Dangerous Goods by the criteria of the ADG Code for transport by road or rail

NOT classified as a Dangerous Goods by the criteria of the IMDG Code for transport by sea

NOT classified as a Dangerous Goods by the criteria of the IATA Code for transport by air

14.1 UN number

ADG : Not assigned

IMDG : Not assigned

IATA : Not assigned

14.2 Proper shipping name

ADG : SODIUM TETRABORATE PENTAHYDRATE

IMDG : SODIUM TETRABORATE PENTAHYDRATE

IATA : SODIUM TETRABORATE PENTAHYDRATE

14.3 Transport hazard class

ADG : Not assigned

IMDG : Not assigned

IATA : Not assigned

14.4 Packing group

ADG : Not assigned

IMDG : Not assigned

IATA : Not assigned

14.5 Environmental hazards

ADG : No

IMDG Marine Pollutant : No

IATA : No

14.6 Special precautions for users

No data

14.7 Hazchem code

ADG : Not assigned

IMDG EMS : Not assigned

14.8 Dangerous goods initial emergency response guide (SAA/SNZ HB76:2010)

Not assigned

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Not listed

Carcinogen classification under WHS Regulations 2011, Schedule 10

Not listed

Notification status

AICS On the inventory, or in compliance with the inventory.

16. OTHER INFORMATION

Key / legend to abbreviations and acronyms used in the MSDS

ADG	Australian Dangerous Goods
ASCC	Australian Safety and Compensation Council
DEC	Department of Environment and Conservation
GHS	Globally Harmonised System of Classification & Labelling of Chemicals
NOHSC	National Occupational Health and Safety Commission
RTECS	Registry of Toxic Effects of Chemical Substances.
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
TWA	Time weighted average
STEL	Short term exposure level
SWA	Safe Work Australia
Peak Limitations	A ceiling concentration that should not be exceeded over a measurement period, which should be as short as possible, but not exceeding 15 minutes
LD ₅₀	Lethal dose 50. The single dose of a substance that causes the death of 50% of an animal population from exposure to the substance by any route other than inhalation
TD Lo	The lowest dose of a substance known to have produced signs of toxicity
RTECS	Registry of Toxic Effects of Chemical Substances
g/L	Grams per litre
g/cm ³	Grams per cubic centimetre

mg/m ³	Milligrams per cubic metre
mg/kg	Milligrams per kilogram
pH	Relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline
WHS	Work Health and Safety

Literature references

“Workplace Exposure Standards for Airborne Contaminants, December 2011” by SWA Work Health and Safety Regulations 2011

“Registry of Toxic Effects of Chemical Substances”. Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2012.

Reason(s) for Issue:

Revised primary SDS

Alignment to GHS requirements

Disclaimer

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