CENTAUR PACKAGING
PACKAGING & HOSPITALITY SPECIALISTS

# Safety Data Sheet
# Borax Decahydrate

December 2025

## 1. IDENTIFICATION

**Product Name** **Borax Decahydrate**

**Other Names** Borax;DisodiumTetraborate; Sodium Tetraborate, Decahydrate

**Uses** The productisusedin Cleaning and Insect Control, Industrial Manufacturing, in particular in Ceramics,Detergent, Borosilicate Glass, Insulation Fiberglass.

**Chemical Family** No Data Available

**Chemical Formula** Na2B4O7. 10H2O,

**Chemical Name** Borax Decahydrate

**Product Description** No Data Available.

### Contact Details of the Supplier of this Safety Data Sheet

| Organisation | Location | Telephone |
|---|---|---|
| Centaur Packaging | 3 Concorde Way<br>Bomaderry NSW 2540 | 02 4422 9001 |

### Emergency Contact Details

*Foremergenciesonly;DONOTcontact these companies forgeneral product advice.*

| Organisation | Location | Telephone |
|---|---|---|
| Poisons Information Centre | Westmead NSW | 1800-251525<br>131126 |
| Chemcall | Australia | 1800-127406<br>+62-4-9179888 |

## 2. HAZARD IDENTIFICATION

**Poisons Schedule (Aust)** 5

**Globally Harmonised System**

**Hazard Classification** Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

**Hazard Categories** Toxic To Reproduction – Category 1B

**Pictograms**



**Signal Word** Danger

| | | | |
|---|---|---|---|
| **Hazard Statements** | | **H360FD** | May damage fertility. May damage the unborn child. |
| **Precautionary Statements** | Prevention | **P201** | Obtain special instructions before use. |
| | | **P202** | Do not handle until all safety precautions have been read and understood. |

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| | **P281** | Use personal protective equipment as required. |
| Response | **P308 + P313** | IF exposed or concerned: Get medical advice/attention. |
| Storage | **P405** | Store locked up. |
| Disposal | **P501** | Dispose of contents/container in accordance with local/ regional / national / international regulations. |

**National Transport Commission (Australia)**
Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**Dangerous Goods Classification** NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

*Ingredients*

| Chemical Entity | Formula | CAS Number | Proportion |
|---|---|---|---|
| Borax Decahydrate | Na2B4O7.10H2O | 1303-96-4 | >99.9 % |

## 4. FIRST AID MEASURES

*Description ofnecessarymeasures according to routes of exposure*

**Swallowed** If large amounts are swallowed (i.e. more than one teaspoon), give two glasses of water and seek medical attention.

**Eyes** Use an eye wash fountain or fresh water to cleanse eye. If irritation persists for more than 30 minutes, seek medical attention.

**Skin** Remove contaminated clothing. Wash affected area with soap and plenty of water. Seek medical attention if irritation occurs.
Wash clothing before reuse.

**Inhaled** Remove victim from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.

**Advise to Doctor** Observation only is required for adult ingestion of less than 9 grams of borax decahydrate. For ingestion in excess of 9 grams, maintain adequate kidney function and force fluids. Gastric lavage is recommended for symptomatic patients only. Haemodialysis should be reserved for massive acute ingestion or patients with renal failure. Boron analyses of urine or blood are only useful for documenting exposure and should not be used to evaluate severity of poisoning or to guide treatment.

**Medical Conditions Aggravated by Exposure** Potential health effects: Inhalation is the most significant route of exposure in occupational and other settings. Dermal exposure is not usually a concern because borax decahydrate is poorly absorbed through intact skin. Signs and symptoms of exposure: Symptoms of accidental overexposure to borax decahydrate have been associated with ingestion or absorption through large areas of damaged skin. These may include nausea, vomiting, and diarrhoea, with delayed effects of skin redness and peeling. Refer to section 11 for details on Toxicological data.

## 5. FIRE FIGHTING MEASURES

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| **General Measures** | Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Product is a non-flammable solid. |
| **Flammability Conditions** | Any fire extinguishing media may be used on nearby fires. |
| **Extinguishing Media** | Non-combustible solid. Material does not burn nor will it support combustion. |
| **Fire and Explosion Media** | Non-combustible solid. Borax decahydrate is not flammable, combustible or explosive. The product is itself a flame retardant. Incompatible with strong reducing agents such as metal hydrides, acetic anhydride, alkali metals, and sources of ignition. Hazardous decomposition products have not been reported. Reaction with strong reducing agents such as metal hydrides, acetic anhydride or alkali metals will generate hydrogen gas which could create an explosive hazard. |
| **Hazardous Products of Combustion** | |
| **Special Fire Fighting Instructions** | Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment. |
| **Personal Protective Equipment** | 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) or chemical splash suit. Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas.<br>Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment. |
| **Flashpoint** | No Data Available. |
| **Lower Explosion Limit** | No Data Available. |
| **Upper Explosion Limit** | No Data Available. |
| **Auto Ignition Temperature** | No Data Available. |
| **Hazchem Code** | No Data Available. |

## 6. ACCIDENTAL RELEASE MEASURES

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| **General Response Procedure** | Avoid accidents, clean up immediately. May be slippery when split. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. Use clean, non-sparking tools and equipment. |
| **Clean Up Procedures** | Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labelled chemical-waste container and dispose of promptly as hazardous waste. Avoid contamination of water bodies during clean up and disposal.<br>Spillage into water: Where possible, remove any intact containers from the water. Advise local water authority that none of the affected water should be used for irrigation or for the abstraction of potable water until natural dilution returns the boron value to its normal environmental background level. |
| **Containment** | Stop leak if safe to do so. Isolate the danger area. |
| **Environmental Precautionary Measures** | Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. |
| **Evacuation Criteria** | Evacuate all unnecessary personnel. |
| **Personal Precautionary Measures** | Personnel involved in the clean up should wear full protective clothing as listed in section 8. |

## 7. HANDLING AND STORAGE

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| **Handling** | Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. To maintain package integrity and to minimise caking of the product, bags should be handled on a first in-first out basis. Good housekeeping and dust prevention procedures should be followed to minimise dust generation and accumulation. Wash 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. Atmosphere should be checked regularly against established exposure standards to ensure safe working conditions are maintained. The product should be kept away from strong reducing agents. Apply above handling advice when mixing with other substances. |
| **Storage** | 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. Provide appropriate ventilation and store bags such as to prevent any accidental damage. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail. |
| **Container** | Container type/packaging must comply with all applicable local legislation. Store in original packaging as approved by manufacturer. |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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| **General** | The following exposure standard has been established by The Australian Safety and Compensation Council (ASCC); Disodium tetraborate decahydrate (Borax Decahydrate) CAS 1303-96-4: TWA = 5mg/m3 NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.<br>These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept as low as a level as is workable. These 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. |
| **Exposure Limits** | No Data Available. |
| **Biological Limits** | No information available on biological limit values for this product. |
| **Engineering Measures** | A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Maintain air concentrations below occupational exposure standards. Wash hands before breaks and at the end of the workday. Remove and wash soiled clothing. |
| **Personal Protection Equipment** | RESPIRATOR: Wear an effective dust mask where dusts/vapours are generated and engineering controls are inadequate (AS1715/1716)<br>EYES: Safety glasses with side shields or goggles (AS1336/1337).<br>HANDS: Wear rubber or PVC gloves (AS2161).<br>CLOTHING: Long-sleeved protective clothing and safety footwear (AS3765/2210).<br>NOTE: Goggles and gloves are not required for normal industrial exposures, but may be warranted if environment is excessively dusty. |
| **Work Hygienic Practices** | No Data Available. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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|---|---|
| **Physical State** | Solid |
| **Appearance** | Crystalline Powder |
| **Odour** | Odourless |
| **Colour** | White |
| **pH** | 9.2 |
| **Vapour Pressure** | Negligible (20'C) torr (@ 20 °C) |
| **Relative Vapour Density** | No Data Available |
| **Boiling Point** | No Data Available |
| **Melting Point** | 62 °C |
| **Freezing Point** | No Data Available |
| **Solubility** | Completely soluble 25°C 1.71- |
| **Specific Gravity** | 1.73 (20'C) |
| **Flash Point** | No Data Available |
| **Auto Ignition Temp** | No Data Available |
| **Evaporation Rate** | No Data Available |
| **Bulk Density** | No Data Available |
| **Corrosion Rate** | No Data Available |
| **Decomposition Temperature** | No Data Available |
| **Density** | 1.73 g/cm3 Relative |
| **Specific Heat** | No Data Available |
| **Molecular Weight** | 381.37 g/mol |
| **Net Propellant Weight** | No Data Available |
| **Octanol Water Coefficient** | No Data Available |
| **Particle Size** | No Data Available |
| **Partition Coefficient** | No Data Available |
| **Saturated Vapour Concentration** | No Data Available |
| **Vapor Temperature** | |
| **Viscosity** | No Data Available |
| **Volatile Percent** | No Data Available |
| **VOC Volume** | No Data Available |
| **Additional Characteristics** | No Data Available |
| **Potential for Dust Explosion** | No Data Available |
| **Fast or Intensely Burning Characteristics** | No Data Available |
| **Flame Propagation or Burning Rate of Solid Materials** | No Data Available |
| **Non-Flammables That Could Contribute Unusual Hazards to a Fire** | No Data Available |
| **Properties That May Initiate or Contribute to Fire Intensity** | No Data Available |
| **Reactions That Release Gases or Vapours** | Reaction with reducing agents will generate hydrogen gas. |
| **Release of Invisible Flammable Vapours and Gases** | No Data Available |

## 10. STABILITY AND REACTIVITY

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| **Chemical Stability** | Product is stable under normal conditions of use, storage and temperature. Borax decahydrate is a stable product, but when heated is loses water, eventually forming anhydrous borax (Na2B4O7). |
| **Conditions to Avoid** | Avoid excessive heat, direct sunlight, static discharges, generating dust, moisture and high temperatures. |
| **Materials to Avoid** | Incompatible with strong reducing agents such as metal hydrides, acetic anhydride, alkali metals, and sources of ignition, strong oxidising agents. |
| **Hazardous Decomposition Products** | Hazardous decomposition products have not been reported. Reaction with strong reducing agents such as a metal hydrides, acetic anhydride or alkali metals will generate hydrogen gas which could create an explosive hazard. |
| **Hazardous Polymerisation** | Hazardous polymerization has not been reported. Reaction with strong reducing agents such as metal hydrides, acetic anhydride or alkali metals will generate hydrogen gas which could create an explosive hazard. |

## 11. TOXICOLOGICAL INFORMATION

*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:*

**Ingestion**: Swallowing may result in nausea, vomiting, diarrhoea and abdominal pain.

**Eye contact:** An eye irritant.

**Skin contact:** Contact with skin may result in irritation.

**Inhalation:** Breathing in dust may result in respiratory irritation.

**Acute toxicity:**

Oral LD50 (rat): 4,500 - 5,000 mg/kg (1)

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|---|---|
| **Skin Corrosion/Irritation**: | May cause mechanical irritation. |
| **Serious Eye Damage/Irritation** | Irritant. |
| **Respiratory or Skin Sensitisation** | No known effect. (1) |
| **Chronic Effects** | No information available for the product |
| **Mutagenicity** | No information available |
| **Carcinogenicity** | No information available |
| **Reproductive Toxicity** | May damage fertility or the unborn child. |
| **Specific Target Organ Toxicity (STOT) – single exposure** | No information available. |
| **Specific Target Organ Toxicity (STOT) – repeated exposure** | No information available. |
| **Aspiration Hazard** | No information available. |

## 12. ECOLOGICAL INFORMATION

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| **Ecotoxicity** | Avoid contaminating waterways. Toxicity to algae IC50 – Desmodesmus subspicatus (green algae) – 158 mg/l – 96 h. |

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|---|---|
| **Persistence/Degradability** | Boron is naturally occurring and ubiquitous in the environment. Borax decahydrate decomposes in the environment to natural borate.<br>Phytotoxicity: Boron is an essential micronutrient for healthy growth of plants, however, it can be harmful to boron sensitive plants in higher quantities. Care should be taken to minimise the amount of borate released to the environment.<br>Boron occurs naturally in sea water at an average concentration of 5mg/B/1 or less. In dilute aqueous solutions the predominant boron species present is undissociated boric acid. |
| **Mobility** | The product is soluble in water and is leachable through normal soil.<br>Partition coefficient: n-octanol/water: Log Kow (Pow): 1.53+ - 0.05 (at 22 + - 1'C) pH 7.5 |
| **Environmental Fate** | Large amounts of borax decahydrate can be harmful to plants and other species. Therefore releases to the environment should be minimised.<br>ENVIRONMENTAL PRECAUTIONS: Borax decahydrate is a water-soluble white powder that may, at high concentrations cause damage to trees or vegetation by root absorption. |
| **Bioaccumulation Potential** | Not expected to Bioconcentrate or bioaccumulate. |
| **Log Octanol/Water Partition Coefficient** | : -0.757 (boric acid) @ 25°C |
| **Environmental Impact** | No Data Available |

## 13. DISPOSAL CONSIDERATIONS

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|---|---|
| **General Information** | 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. |
| **Special Precautions for Land Fill** | Contact a specialist disposal company or the local waste regulator for advice. Small quantities of Borax decahydrate can usually be disposed of at landfill sites. No special disposal treatment is required, but local authorities should be consulted about any specific local requirements. Tonnage quantities of product are not recommended to be sent to landfills. Such product should, if possible, be used for an appropriate application. |

## 14. TRANSPORT INFORMATION

### Land Transport (Australia)

ADGCode

| | |
|---|---|
| **Proper Shipping Name** | BORAX DECAHYDRATE |
| **Class** | No Data Available |
| **Subsidiary Risk(s)** | No Data Available |
| | No Data Available |
| **UN Number** | No Data Available |
| **Hazchem** | No Data Available |
| **Pack Group** | No Data Available |
| **Special Provision** | No Data Available |

### Sea Transport

IMDG Code

| | |
|---|---|
| **Proper Shipping Name** | BORAX DECAHYDRATE |
| **Class** | No Data Available |
| **Subsidiary Risk(s)** | No Data Available |
| **UN Number** | No Data Available |
| **Hazchem** | No Data Available |
| **Pack Group** | No Data Available |
| **Special Provision** | No Data Available |
| **EMS** | No Data Available |
| **Marine Pollutant** | No |

### Air Transport
IATADGR

| | |
|---|---|
| **Proper Shipping Name** | BORAX DECAHYDRATE |
| **Class** | No Data Available |
| **Subsidiary Risk(s)** | No Data Available |
| **UN Number** | No Data Available |
| **Hazchem** | No Data Available |
| **Pack Group** | No Data Available |
| **Special Provision** | No Data Available |

### National Transport Commission (Australia)
AustralianCode fortheTransportof DangerousGoods by Road & Rail (ADG Code)

**Dangerous Goods Classification** NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

## 15. REGULATORY INFORMATION

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|---|---|
| **General Information** | No Data Available |
| **Poisons Schedule (Aust)** | 5 |

### National/Regional Inventories

| | |
|---|---|
| **Australia (AICS)** | Listed |
| **Canada (DSL)** | Listed |
| **Canada (NDSL)** | Not Determined |
| **China (IECSC)** | Listed 215-540-4 |
| **Europe (EINECS)** | Registered |
| **Europe (REACh)** | Listed |
| **Japan (ENCS/METI)** | Listed |
| **Korea (KECI)** | Not Determined |
| **Malaysia (EHS Register)** | Listed |
| **New Zealand (NZIoC)** | Listed |
| **Philippines (PICCS)** | Not Determined |
| **Switzerland (Giftliste 1)** | Not Determined |
| **Switzerland (Inventory of Notified Substances)** | |
| **Taiwan (NCSR)** | Not Determined |
| **USA (TSCA)** | Not Determined |

## 16. OTHER INFORMATION

**Key/Legend**

**<** Less Than
**>** Greater Than
**AICS** Australian Inventory of Chemical Substances
**atm** Atmosphere
**CAS** Chemical Abstract Service (Registry Number)
**$cm^2$** Square Centimetres
**CO2** Carbon Dioxide
**COD** Chemical Oxygen Demand
**deg C (°C)** Degrees Celcius
**EPA (New Zealand)** Environmental Protection Authority of New Zealand
**deg F (°F)** Degrees Farenheit
**g** Grams
**$g/cm^3$** Grams per Cubic Centimetre
**g/l** Grams per Litre
**HSNO** Hazardous Substance and New Organism
**IDLH** Immediately Dangerous to Life and Health
**Immiscible** Liquids are insoluble in each other.
**inHg** Inch of Mercury
**inH20** Inch of Water
**K** Kelvin
**kg** Kilogram
**$kg/m^3$** Kilograms per Cubic Metre
**lb** Pound
**ltr** or **L** Litre
**m3** Cubic Metre
**mbar** Millibar
**mg** Milligram
**mg/24H** Milligrams per 24 Hours
**mg/kg** Milligrams per Kilogram
**$mg/m^3$** Milligrams per Cubic Metre
**Misc** or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.
**mm** Millimetre
**mmH2O** Millimetres of Water
**mPa.s** Millipascals per Second
**N/A** Not Applicable
**NIOSH** National Institute for Occupational Safety and Health
**NOHSC** National Occupational Health and Safety Commission
**OECD** Organisation for Economic Co-operation and Development
**Oz** Ounce
**PEL** Permissible Exposure Limit
**Pa** Pascal
**ppb** Parts per Billion
**ppm** Parts per Million
**ppm/2h** Parts per Million per 2 Hours
**ppm/6h** Parts per Million per 6 Hours
**psi** Pounds per Square Inch
**R** Rankine

**RCP** Reciprocal Calculation Procedure
**STEL** Short Term Exposure Limit
**TVL** Threshold Limit Value
**tne** Tonne
**TWA** Time Weighted Average
**ug/24H** Micrograms per 24 Hours
**UN** United Nations
**wt** Weight

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of Its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

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