

SAFETY DATA SHEET

BORAX DECAHYDRATE 99.5-105% ACS

Page: 1

Compilation date: 07/03/2019

Revision No: 1

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: BORAX DECAHYDRATE 99.5-105% ACS

CAS number: 1303-96-4

EINECS number: 215-540-4

Product code: GPC8102

Synonyms: SODIUM TETRABORATE DECAHYDRATE
SODIUM BORATEDECAHYDRATE

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of substance / mixture: PC21: Laboratory chemicals.

1.3. Details of the supplier of the safety data sheet

Company name: Atom Scientific Ltd

2b East Tame Business Park

Hyde

Manchester

SK14 4GX

Tel: 0161 366 5123

Fax: 01704 337167

Email: technical@atomscientific.com

1.4. Emergency telephone number

Emergency tel: 07833453806

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Eye Irrit. 2: H319; Repr. 1B: H360FD

Classification under CHIP: T: R60; T: R61

Most important adverse effects: Causes serious eye irritation. May damage fertility. May damage the unborn child.

2.2. Label elements

Label elements under CLP:

Hazard statements: H319: Causes serious eye irritation.

H360FD: May damage fertility. May damage the unborn child.

Signal words: Danger

Hazard pictograms: GHS08: Health hazard

GHS07: Exclamation mark



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SAFETY DATA SHEET

BORAX DECAHYDRATE 99.5-105% ACS

Page: 2

Precautionary statements: 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+313: IF exposed or concerned: Get medical advice/attention.
P337+313: If eye irritation persists: Get medical advice/attention.
P501: Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards

Other hazards: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.1. Substances

Chemical identity: BORAX DECAHYDRATE 99.5-105% ACS

CAS number: 1303-96-4

EINECS number: 215-540-4

Contains: Formula : $B_4Na_{20O_7} \cdot 10H_2O$
Molecular weight : 381.37 g/mol

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water. Consult a doctor.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Never give anything by mouth to an unconscious person. Wash out mouth with water. Consult a doctor.

Inhalation: Move to fresh air in case of accidental inhalation of vapours. If unconscious, check for breathing and apply artificial respiration if necessary. Consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact: No data available.

Eye contact: There may be irritation and redness.

Ingestion: No data available.

Inhalation: No data available.

Delayed / immediate effects: No data available.

4.3. Indication of any immediate medical attention and special treatment needed

Immediate / special treatment: No data available.

Section 5: Fire-fighting measures

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SAFETY DATA SHEET
BORAX DECAHYDRATE 99.5-105% ACS

Page: 3

5.1. Extinguishing media

Extinguishing media: Water spray. Alcohol resistant foam. Dry chemical powder. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes of borane/ boron oxides. In combustion emits toxic fumes of sodium oxides.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust. For personal protection see section 8.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Reference to other sections: Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Not applicable.

7.3. Specific end use(s)

Specific end use(s): No special requirement.

Section 8: Exposure controls/personal protection

8.1. Control parameters

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SAFETY DATA SHEET

BORAX DECAHYDRATE 99.5-105% ACS

Page: 4

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	5 mg/m ³	-	-	-

8.1. DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

Eye protection: Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Environmental: Do not let product enter drains. Prevent from entering in public sewers or the immediate environment.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Crystalline

Colour: White

Odour: Odourless

Solubility in water: Soluble

Melting point/range°C: 62 °C

Part.coeff. n-octanol/water: log Pow: -1.53

Relative density: 1.73 g/cm³ at 25 °C

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SAFETY DATA SHEET
BORAX DECAHYDRATE 99.5-105% ACS

Page: 5

pH: 9.2 at 10 g/l

9.2. Other information

Other information: Not applicable.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: No data available.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: No data available.

10.4. Conditions to avoid

Conditions to avoid: No data available.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong reducing agents.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes of borane/ boron oxides. In combustion emits toxic fumes of sodium oxides.

Section 11: Toxicological information

11.1. Information on toxicological effects

Relevant hazards for substance:

Hazard	Route	Basis
Serious eye damage/irritation	OPT	Based on test data
Reproductive toxicity	--	Based on test data

Symptoms / routes of exposure

Skin contact: No data available.

Eye contact: There may be irritation and redness.

Ingestion: No data available.

Inhalation: No data available.

Delayed / immediate effects: No data available.

Other information: Not applicable.

Section 12: Ecological information

12.1. Toxicity

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SAFETY DATA SHEET
BORAX DECAHYDRATE 99.5-105% ACS

Page: 6

Ecotoxicity values:

Species	Test	Value	Units
DAPHNIA	48H EC50	1,085 - 1,402	mg/l
ALGAE	72H IC50	158	mg/l

12.2. Persistence and degradability

Persistence and degradability: No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Harmful to aquatic organisms.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Recovery operations: Not applicable.

Disposal of packaging: Dispose of as unused product.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Specific regulations: This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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SAFETY DATA SHEET
BORAX DECAHYDRATE 99.5-105% ACS

Page: 7

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and 3: H319: Causes serious eye irritation.

H360FD: May damage fertility. May damage the unborn child.

R60: May impair fertility.

R61: May cause harm to the unborn child.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.