

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name	Sodium Borate Decahydrate
CAS number	1303-96-4
Synonyms	Sodium Tetraborate Decahydrate; Borax

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

Identified uses	Laboratory chemicals
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1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
Reproductive toxicity (Category 1B)

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word Danger

Hazard statements May damage fertility. May damage the unborn child.

Precautionary statements

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Use personal protective equipment as required.
 IF exposed or concerned: get medical attention/advice.
 Store locked up
 Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No information available

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
borates, tetra, sodium salts, decahydrate	Borax	1303-96-4	100%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

If inhaled Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.

In case of skin contact Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

In case of eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 mins. Obtain medical attention.

If swallowed Do not induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

None reasonably foreseeable.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Unsuitable extinguishing media No information available.

5.2 Specific hazards arising from the substance or mixture

Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.4 Further information

No information available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

6.2 Environmental precautions

Should not be released into the environment.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

6.4 Reference to other sections

See section 2 for hazard and precaution warnings.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical attention.

Hygiene measures

No information available

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatibilities

Strong oxidizing agents. Strong acids. Finely powdered metals.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Borates, tetra, sodium salts, decahydrate	(Vacated) TWA	10 mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
Borates, tetra, sodium salts, decahydrate	TWA	2 mg/m ³
	STEL	6 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Borates, tetra, sodium salts, decahydrate	TWA	5 mg/m ³

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection

Wear appropriate gloves to prevent hand exposure.

Body Protection

Wear appropriate clothes to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSHA/MSHA approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Powder solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	9 5% aq.sol. 20°C
Melting Point/Range	No information available
Boiling Point/Range	No information available
Evaporation Rate	Not applicable
Flammability (solid)	No information available
Flammability or explosive limit	No information available
Vapor Pressure	No information available
Vapor Density	No information available
Density	1.73
Solubility	No information available
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	Not applicable
Decomposition Temp	greater than 100°C
Viscosity	Not applicable
Molecular Formula	B4 Na2 O7 . 10 H2 O
Molecular Weight	381.36
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

None known, based on information available.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

None under normal processing

10.4 Conditions to avoid

Exposure to air, incompatible products, dust formation.

10.5 Incompatible materials

Strong oxidizing agents, strong acids, finely powdered metals.

10.6 Hazardous decomposition products

Oxides of boron, sodium oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Borates, tetra, sodium salts, decahydrate	5660 mg/kg (Rat)	>2000 mg/kg (Rabbit)	2.03 mg/l (Rat)

Skin corrosion/irritation

May cause irritation of skin

Serious eye damage/eye irritation

Irritating to eyes

Respiratory or skin sensitization

May cause irritation of respiratory tract

Germ cell mutagenicity

No information available

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Borates, tetra, sodium salts, decahydrate	1303-96-4	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

No information available

Specific target organ toxicity - repeated exposure

No information available

Reproductive toxicity

Experiments have shown reproductive toxicity effects on laboratory animals. May cause harm to the unborn child.

Chronic effects

No information available

11.2 Additional Information

The toxicological properties have not yet been fully investigated.

SECTION 12: Ecological information

12.1 Toxicity

Ecotoxicity:

Freshwater algae	2.6-21.8 mg/L EC50 96h 158 mg/L EC50 = 96h
Freshwater fish	340 mg/L LC50 96 h 708 mg/l LC50 96 h
Water flea	1085 - 1402 mg/L LC50 48 h

12.2 Persistence and degradability

Persistence is unlikely.

12.3 Bio accumulative potential

No information available

12.4 Mobility in soil

Will likely be mobile in soil due to its water solubility.

12.5 Results of PBT and vPvB assessment

No information available

12.6 Endocrine disrupting properties

No information available

12.7 Other adverse effects

The toxicological properties have not been fully investigated. See actual entry in RTECS for the complete information.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US) Not listed

IMDG Not listed

IATA Not listed

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Acute health hazard

Chronic health hazard

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Wo

Ethyl Alcohol (CAS 64-17-5)

Food and Drug Administration (FDA)

Indirect food additives

US state regulations

US. Massachusetts RTK - Substance List

Listed

US. New Jersey Worker and Community Right-to-Know Act

Listed

US. Pennsylvania Worker and Community Right-to-Know Law

Listed

US. Rhode Island RTK

Listed

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

Revision date: 06/05/2024

Revision number: 0

SECTION 17: Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.