



Material Safety Data Sheet Sodium Borate, Decahydrate

Section 1 - Chemical Product and Company Identification

MSDS Name:

Sodium borate, decahydrate

Catalog Numbers:

LC22955

Synonyms:

Borax; Sodium tetraborate decahydrate; Disodium tetraborate decahydrate.

Company Identification:

LabChem Inc
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 – Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
1303-96-4	Sodium tetraborate, decahydrate	100

Section 3 - Hazards Identification

Emergency Overview

Appearance: White solid.**Danger!** Causes eye, skin, and respiratory tract irritation. May impair fertility. May cause harm to the unborn child.**Target Organs:** None.**Potential Health Effects****Eye:**

May cause eye irritation.

Skin:

May cause skin irritation. May be harmful if absorbed through the skin.

Ingestion:

May cause irritation of the digestive tract. Human fatalities have been reported from acute poisoning.

Inhalation:

May cause respiratory tract irritation.

Chronic:

Chronic exposure may cause reproductive disorders and teratogenic effects.



Material Safety Data Sheet Sodium Borate, Decahydrate

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:

Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, thermal decomposition or combustion may generate irritating and highly toxic gases. Runoff from fire control or dilution water may cause pollution.

Extinguishing Media:

In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

Autoignition Temperature:

Not applicable

Flash Point:

Not applicable

NFPA Rating:

(estimated) Health: 2; Flammability: 0; Instability: 0

Explosion Limits:

Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Sweep up or absorb material, and then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions.



Material Safety Data Sheet Sodium Borate, Decahydrate

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage:

Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Sodium tetraborate, decahydrate	none listed	none listed	none listed

OSHA Vacated PELs:

Sodium tetraborate, decahydrate: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:

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:

Wear appropriate gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

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

Section 9 - Physical and Chemical Properties

Physical State:	Solid
Color:	White
Odor:	None reported
pH:	9.5 (5% sol.)
Vapor Pressure:	Not available
Vapor Density:	Not available
Evaporation Rate:	Not applicable
Viscosity:	Not available
Boiling Point:	1575°C
Freezing/Melting Point:	741°C



Material Safety Data Sheet Sodium Borate, Decahydrate

Decomposition Temperature: Not available
Solubility in water: Soluble in water
Specific Gravity/Density: 1.73 (water=1)
Molecular Formula: B₄Na₂O₇·10H₂O
Molecular Weight: 381.36

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Dust generation.

Incompatibilities with Other Materials:

Alkaloid salts, metallic salts, strong acids.

Hazardous Decomposition Products:

Oxides of boron.

Hazardous Polymerization:

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 1303-96-4: VZ2275000

LD50/LC50:

CAS# 1303-96-4:

Oral, mouse: LD50 = 2 gm/kg;

Oral, rat: LD50 = 2660 mg/kg

Carcinogenicity:

CAS# 1303-96-4: Not listed by ACGIH, IARC, NTP, or California Proposition 65.

Epidemiology:

No information found.

Teratogenicity:

Developmental effects were observed in mice, rats and rabbits after oral administration of boric acid. However, these effects were considered secondary to maternal toxicity (increased liver and kidney weight).

Reproductive:

Adverse reproductive effects have occurred in experimental animals. Boric acid has selectively damaged the testes, sperm production and fertility in rats and dogs.

Mutagenicity:

No information found.

Neurotoxicity:

No information found.

Section 12 - Ecological Information

No information found.



Material Safety Data Sheet Sodium Borate, Decahydrate

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA:

CAS# 1303-96-4 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):

None of the chemicals in this material have an RQ.

CERCLA/SARA Section 313:

No chemicals are reportable under Section 313.

OSHA - Highly Hazardous:

None of the chemicals in this product are considered highly hazardous by OSHA.

US State

State Right to Know:

CAS# 1303-96-4 is not present on state lists from California, Pennsylvania, Minnesota, Massachusetts, or New Jersey.

California Regulations:

None.

European/International Regulations

Canadian DSL/NDSL:

CAS# 1303-96-4 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:

CAS# 1303-96-4 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: November 14, 2007

Revision Date: October 12, 2009

Information in this MSDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc. assumes no liability resulting from the use of this MSDS. The user must determine suitability of this information for his application.