



LTS Research Laboratories, Inc.
Safety Data Sheet
Sodium Tetraborate

1. Product and Company Identification

Trade Name: Sodium Tetraborate
Chemical Formula: $\text{Na}_2\text{B}_4\text{O}_7$
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 37 Ramland Road
City: Orangeburg
State: New York
Zip Code: 10962
Country: USA
Tel #: 855-587-2436 / 855-lts-chem

24-Hour Emergency Contact: 800-424-9300 (US & Canada)
+1-703-527-3887 (International)

2. Hazards Identification

Signal Word: Danger



Hazard Statements: H319: Causes serious eye irritation
H360: May damage fertility or the unborn child
H402: Harmful to aquatic life

Precautionary Statements: P202: Do not handle until all safety precautions have been read and understood
P264: Wash face, hands and any exposed skin thoroughly after handling
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P281: Use organ specific protection and personal protective equipment as required
P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
P308+P313: IF exposed or concerned: Get medical advice/attention
P337+P313: If eye irritation persists get medical advice/attention
P405: Store locked up
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):
Health: 2
Flammability: 0
Physical: N/A

3. Composition

Chemical Family: Inorganic Material
Additional Names: Borax fused

Sodium Tetraborate ($\text{Na}_2\text{B}_4\text{O}_7$):
Percentage: 100 wt%
CAS #: 1330-43-4
EC #: 215-540-4

4. First Aid Procedures

General Treatment: Seek medical attention if symptoms persist.
Special Treatment: None
Important Symptoms: None

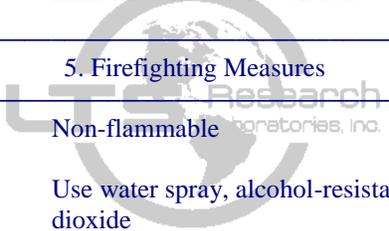
Inhalation: Remove victim to fresh air. Supply oxygen if breathing is difficult. Seek immediate medical attention.

Ingestion: Give one to two glasses of water. Never induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention.

Skin: Wash affected area with mild soap and water. Remove any contaminated clothing. Seek immediate medical attention.

Eyes: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention.

5. Firefighting Measures

Flammability: Non-flammable 

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

Spec. Fire Fighting Procedure: Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

6. Accidental Release Measures

If Material Is Released/Spilled: Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.

Environmental Precautions: Isolate runoff to prevent environmental pollution.

7. Handling and Storage

Handling Conditions: Wash thoroughly after handling.

Storage Conditions: Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.

Work/Hygienic Maintenance: Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

Ventilation: Provide sufficient ventilation to maintain concentration at or below threshold limit.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	5 mg/m ³ as Na ₂ B ₄ O ₇ , long-term value
Threshold Limit Value:	2 mg/m ³ as Na ₂ B ₄ O ₇ , long-term value
Special Equipment:	None
Respiratory Protection:	Dust Respirator
Protective Gloves:	Nitrile rubber gloves
Minimum layer thickness:	0.11 mm
Break Through Time:	480 min
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	White
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	31.7 g/L
Boiling Point:	1575 °C
Melting Point:	741 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	2.367 g/cc
Molecular weight:	201.22 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts With:	Oxidizing agents, Potassium, Acid anhydrides, water
Incompatible Conditions:	Exposure to moisture
Hazardous Decomposition Products:	Borane/boron oxides, Sodium oxides

11. Toxicological Information

Potential Health Effects:	
Eyes:	Causes serious eye irritation
Skin:	May cause irritation
Ingestion:	May cause irritation
Inhalation:	May cause irritation
Chronic:	May damage fertility or the unborn child
Signs & Symptoms:	Ingestion or absorption of borates may cause nausea, vomiting, abdominal cramps, diarrhea, erythematous lesions on the skin and mucous membranes, circulatory collapse, tachycardia, cyanosis, delirium, convulsions, and coma.
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	LD50 Oral: 2500-2600 mg/kg for rat by mouth
Carcinogen:	N/A

12. Ecological Information

Aquatic Toxicity:	Harmful
Persistent Bioaccumulation Toxicity:	N/A
Very Persistent, Very Bioaccumulative:	N/A
Notes:	LC50: 74 mg/L, 96 h, (Limanda limanda); LC50: 1085-1402 mg/L, Daphnia Magna

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous:	Not hazardous for transportation
Hazard Class:	N/A
Packing Group:	N/A
UN Number:	N/A
Proper Shipping Name:	N/A

15. Regulatory Information

Sec 302 Extremely Hazardous:	No
Sec 304 Reportable Quantities:	N/A
Sec 313 Toxic Chemicals:	No

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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