

SAFETY DATA SHEET

Preparation Date: 3/06/2015

Revision Date: 3/06/2015

Revision Number: G1

Product identifier

Product code: S1186
Product Name: SODIUM BORATE, TECHNICAL

Other means of identification

Synonyms: Sodium pyroborate, decahydrate;
Borates, tetra, sodium salt, decahydrate;
INCI name is Sodium Borate;
Borax; Borax decahydrate; Boricin; Neobor; Solubor; Tronabor

CAS #: 1303-96-4
RTECS # VZ2275000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Preservative against wood fungus; artificial aging of wood; fireproofing of fabrics, and woods; soldering metals; manufacture of glazes and enamels; curing or preserving skins; tanning; vet pharmaceutical aid (alkalizing agent); antiseptic; detergent; astringent for mucous membranes; component of insulation glass fiber to enhance durability; in borosilicate glasses to improve thermal properties; germicidal agent in household cleaning products; powdered insecticide.

Uses advised against No information available

Supplier: Spectrum Chemicals and Laboratory Products, Inc.
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2A
Reproductive toxicity	Category 2

Label elements

Warning

Hazard statements

Causes serious eye irritation
Suspected of damaging fertility or the unborn child



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

May be harmful if swallowed

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Sodium Borate, Decahydrate 1303-96-4	1303-96-4	100	*

4. FIRST AID MEASURES

First aid measures

General Advice:

Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126)

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

Eye Contact:

Flush eye with water for 15 minutes. Get medical attention.

Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms Causes eye irritation. May cause skin irritation. Nose and throat irritation. Nosebleeds. Productive cough. Chest tightness. Dyspnea (Shortness of breath and difficulty breathing). Dehydration. May cause abdominal pain, nausea, vomiting, diarrhea. Central nervous system effects. May cause headache. Weakness. Convulsions. Tremors. Irritability. May cause metabolic acidosis. May affect the liver. It may affect the kidneys.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: No information available.

Specific hazards: Not applicable. The product is not flammable.

Special Protective Actions for Firefighters

Specific Methods: No information available.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid dust formation.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not ingest. Do not breathe vapours/dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:

Reducing agents. Strong acids. Metallic salts. Zirconium.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Sodium Borate, Decahydrate - 1303-96-4	None	5 mg/m ³ TWA	6 mg/m ³ STEL inhalable fraction 2 mg/m ³ TWA inhalable fraction	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
Sodium Borate, Decahydrate - 1303-96-4	1 mg/m ³ TWA 3 ppm STEL	2 mg/m ³ TWA inhalable 6 mg/m ³ STEL inhalable	2 mg/m ³ TWA inhalable Borate compounds, inorganic	5 mg/m ³ TWAEV

Australia and Mexico

Components	Australia	Mexico
Sodium Borate, Decahydrate 1303-96-4	5 mg/m ³ TWA	5 mg/m ³ TWA

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles. Safety glasses with side-shields.

Skin and body protection: Long sleeved clothing. Chemical resistant apron. Gloves.

Respiratory protection: Effective dust mask. Wear respirator with dust filter..

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid.	Appearance: Crystalline.	Color: White.
Odor: Odorless.	Taste Alkaline.	Formula: Na ₂ B ₄ O ₇ ·10H ₂ O
Molecular/Formula weight: 381.37	Flash point (°C): No data available	Flashpoint (°C/°F): No information available.
Flash Point Tested according to: Not available	Lower Explosion Limit (%): No information available	Upper Explosion Limit (%): No information available
Autoignition Temperature (°C/°F): No information available	pH: No information available	Melting point/range(°C/°F): No information available
Boiling point/range(°C/°F): No information available	Decomposition temperature(°C/°F): 75°C/167°F	Bulk density: No information available
Specific gravity: 1.73	Vapor pressure @ 20°C (kPa): No information available	Density (g/cm³): 1.73
Evaporation rate: No information available	Vapor density: No information available	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): No information available	Viscosity: No information available
Miscibility: No information available	Solubility: Soluble in cold water Easily soluble in hot water Solubility in Water: 1 g dissolves in 16 ml water; 0.6 ml boiling water Solubility in Glycerol: 1 gram dissolves in 1 ml glycerol. Insoluble in acids Insoluble in alcohol	

10. STABILITY AND REACTIVITY

Reactivity

Reactive with strong acids
Reacts with reducing agents
Incompatible with alkaloidal salts, mercuric chloride, zinc sulfate and other metallic salts, mineral acids

Chemical stability

Stability:

Stable at normal conditions. When heated it loses water, eventually forming anhydrous borax (Na₂B₄O₇). At 100 deg. C, it loses 5H₂O; at 150 deg. C., it loses 9 H₂O; it becomes anhydrous at 320 deg. C. Efflorescent in dry air, the crystals often being coated with white powder.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Exposure to air. Avoid dust formation. Incompatible materials.

Incompatible Materials: Reducing agents. Strong acids. Metallic salts. Zirconium.

Hazardous decomposition products: When heated to decomposition it emits toxic fumes. Sodium oxides. Boron. Boron oxides.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Inhalation. Eyes. Skin.

Acute Toxicity

Component Information

Sodium Borate, Decahydrate - 1303-96-4

LD50/oral/rat = 3493 mg/kg Oral LD50 Rat (LOLI)

2660 mg/kg (RTECS)

5160-6000 mg/kg (U.S. Borax)

LD50/oral/mouse = 2000 mg/kg

LD50/dermal/rabbit = >10000 mg/kg

LD50/dermal/rat = No information available

LC50/inhalation/rat = No information available

LC50/inhalation/mouse = No information available

Other LD50 or LC50 information = 5330 mg/kg Oral LD50 Guinea Pig

Product Information

LD50/oral/rat =

VALUE- Acute Tox Oral = 3493mg/kg

LD50/oral/mouse =

Value - Acute Tox Oral = 2000mg/kg

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = >10000mg/kg

LD50/dermal/rat

VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat

VALUE-Vapor = No information available

VALUE-Gas = No information available

VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

VALUE-Vapor = No information available

Product code: S1186

Product name: SODIUM BORATE,
TECHNICAL

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VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation in sensitive individuals. Poorly absorbed through intact skin, but can penetrate open wounds or abraded skin.

Eye Contact: Causes serious eye irritation.

Inhalation Exposure to high concentrations of borax dust may cause irritation of the nose, throat and dryness of the mouth, nose, and throat. It may also cause nose bleeds, sore throat, productive cough, shortness of breath and chest tightness.

Ingestion Acute toxic effects of borates in general are dehydration, abdominal or epigastric pain, nausea, vomiting, diarrhea, and delayed skin redness, rash. It may also affect behavior/central nervous system (headache, excitement or depression, lethargy, weakness, seizures/convulsions, irritability, tremors, muscle contraction or spasticity, dizziness), liver (hepatitis, jaundice, hepatomegaly), kidneys (nephrosis, oliguria, albuminuria, anuria). In severe cases, low blood pressure, thready pulse, cold clammy skin, cyanosis, cardiac arrhythmias, acute renal failure, and metabolic acidosis may occur. Ingestion of over 1 gram can result in severe gastrointestinal irritation, kidney injury, and even death from central nervous system depression or vascular collapse, especially in infants. Ingestion of 5 to 10 grams can cause severe vomiting, diarrhea, shock and death.

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Chronic exposures can produce eye irritation, coughing, and skin rash (the latter following ingestion). Prolonged or repeated ingestion may affect the spleen, brain, blood (anemia), thyroid and may cause weight loss, liver, kidneys. It may also cause mild gastrointestinal tract effects.
Prolonged or repeated inhalation can irritate the lungs. It may cause nosebleeds, and bronchitis to develop with cough, phlegm, and/or shortness of breath.
Skin: Prolonged or repeated skin contact may cause dermatitis

Sensitization: No information available

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic

Components	ACGIH - Carcinogens	IARC	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Sodium Borate, Decahydrate	A4 Not Classifiable as a Human Carcinogen	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

Reproductive toxicity Suspected of damaging fertility or the unborn child

Reproductive Effects: Possible risk of impaired fertility.
Developmental Effects: Possible risk of harm to the unborn child
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available
STOT - repeated exposure No information available
Target Organs: Respiratory system. Kidneys. Lungs.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.
Persistence and degradability: No information available
Bioaccumulative potential: No information available
Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Sodium Borate, Decahydrate	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: Not applicable
Packing Group: None
ERG No: No information available
Marine Pollutant No data available
DOT RQ (lbs): No information available

TDG (Canada)

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

14. TRANSPORT INFORMATION

ADR

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available
IMDG Page: No information available
Marine Pollutant No information available
MFAG: No information available
Maximum Quantity: No information available

RID

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Classification Code: No information available
Description: No information available

ICAO

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

IATA

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Sodium Borate, Decahydrate</i>	Present	Present KE-03483	Present	Present (1)-69	Present [25548]	Present	Not present

U.S. Regulations

Sodium Borate, Decahydrate

Massachusetts RTK: Present

New Jersey RTK Hazardous Substance List: Present

Pennsylvania RTK: Present

Minnesota - Hazardous Substance List: Present

California Directors List of Hazardous Substances: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Sodium Borate, Decahydrate	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
<i>Sodium Borate, Decahydrate</i>	None	None	None	None	None

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>Sodium Borate, Decahydrate</i>	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

D2B Toxic materials

Sodium Borate, Decahydrate

D2B

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Sodium Borate, Decahydrate	1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
Sodium Borate, Decahydrate	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting

Sodium Borate, Decahydrate	Not listed	Not listed
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EU Classification

R-phrase(s)

R60 - May impair fertility.

R61 - May cause harm to the unborn child.

S -phrase(s)

S53 - Avoid exposure - obtain special instructions before use.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Components	Classification	Concentration Limits:	Safety Phrases
Sodium Borate, Decahydrate	Repr.Cat.2; R60-61	8.5%≤C: Repr.Cat.2; R:60-61	S53 S45

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

T - Toxic

T



16. OTHER INFORMATION

16. OTHER INFORMATION

Preparation Date: 3/06/2015
Revision Date: 3/06/2015
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet