



Safety Data Sheet

Borax decahydrate - Technical



1. Identification

Product identifier	Borax decahydrate - Technical
Product code	N/A
Other means of identification	Sodium tetraborate decahydrate.
Recommended use of the chemical and restrictions on use	Fertilizer.
Distributor	<p>Sylvite 3221 North Service Road, Suite 200 Burlington, Ontario Canada L7N 3G2</p> <p>Tel. 1-800-229-0602 Fax 905-315-2083 https://www.sylvite.ca/</p>
Emergency phone number	1-800-229-0602

2. Hazard identification

Summary	Avoid contact with eyes. Avoid breathing dust. Use in a manner that avoids generating dust. Do not ingest. If medical advice is needed, have this SDS or label at hand. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
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WHMIS 2015/GHS/OSHA HCS 2012



Serious eye damage/eye irritation (Category 2)
Reproductive toxicity (Category 1B)

DANGER

- H360: May damage fertility or the unborn child
- H319: Causes serious eye irritation
- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P264: Wash skin thoroughly after handling.
- P280: Wear protective gloves, protective clothing and eye protection.
- P308+313: IF exposed or concerned: Get medical attention.
- P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P337+313: If eye irritation persists: Get medical advice or attention.
- P405: Store locked up.
- P501: Dispose of contents and container to a licensed chemical disposal agency in accordance with local, regional and national regulations.

3. Composition/information on ingredients

Common name	CAS	Weight % content
Disodium tetraborate decahydrate	1303-96-4	100 %

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If a problem develops or persists, seek medical attention.
Skin contact	Wash skin with warm water and mild soap. Remove contaminated clothing and wash before reuse. If a problem develops or persists, seek medical attention.
Eye contact	Flush with water for at least 15 minutes. Remove contact lenses if easy to do. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	If victim is conscious wash out mouth with water and give 1-2 glasses of water to drink. Never give anything by mouth if victim is unconscious or convulsing. If ingestion of a large amount does occur, seek medical attention or contact a Poison Centre immediately.
Other	No additional information.
Symptoms	May cause itching, redness and irritation of the eyes.
Notes to the physician	Apply a symptomatic and supportive treatment.

5. Fire-fighting measures

Suitable extinguishing media	Use an extinguishing agent appropriate for the surrounding fire.
Specific hazards arising from the chemical	No hazard listed.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask.
Special protective actions for fire-fighters	No additional information.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry into sewers, closed areas and release to the environment.
Methods and materials for containment and cleaning up	Ventilate the area well. Pick up with a shove, a broom, or vacuum. Take care not to scatter dust. Finish cleaning by rinsing with water contaminated surface.

7. Handling and storage

Precautions for safe handling	Use in well ventilated area. Avoid breathing dust. Use in a manner that avoids generating dust. Avoid contact with skin, eyes and clothing. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep containers tightly closed when not in use. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Store tightly closed and in properly labelled containers in a cool, dry and well ventilated place. Store away from incompatible materials (see section 10). Keep away from moisture. Product is hygroscopic and tends to cake on storage.
Storage temperature	<40°C (104°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	No IDLH value is reported.		
Disodium tetraborate decahydrate	STEL TWA (8h)	6 mg/m ³ 2 mg/m ³	ACGIH , BC, ON, RSST ACGIH , BC, ON, RSST
Appropriate engineering controls	Provide sufficient mechanical (general and/or local exhaust) to keep the airborne concentrations of dust below their respective occupational exposure limits.		
Individual protection measures			
Eye	In the workplace, wear safety glasses with side shields. However, goggles are recommended if the product is used in such a way as to generate high dust levels.		
Hands	In case of prolonged contact wear neoprene or nitrile gloves. Disposable nitrile gloves can also be used, but discard after single use. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.		
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. If necessary, wear an apron or long-sleeve protective coverall suit.		
Respiratory	Respiratory protection is not required for normal use. Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. For dust nuisance exposures use type N95 particle respirator.		
Feet	Not required in normal use.		
 Safety glasses			

9. Physical and chemical properties

Physical state	Crystalline solid	Flammability	Non-flammable
Colour	White	Flammability limits	N/Ap.
Odour	Odourless	Flash point	N/Ap.

Odour threshold	N/Av.	Auto-ignition temperature	N/Av.
pH	9.2 @ 1%	Sensibility to electrostatic charges	No
Melting point	75 to 100°C (167 to 212°F)	Sensibility to sparks and/or friction	No
Freezing point	N/Av.	Vapour density	N/Av. (Air = 1)
Boiling point	N/Av.	Relative density	1.72 kg/L (Water = 1)
Solubility	Soluble in water.	Partition coefficient n-octanol/water	-0.757
Evaporation rate	N/Av.	Decomposition temperature	75 to 100°C (167 to 212°F)
Vapour pressure	0.0213kPa (0.2 mm Hg) @ 20°C (68°F)	Viscosity	N/Av.
Percent Volatile	N/Av.	Molecular mass	N/Av.
N/Av.: Not Available N/Av.: Not Applicable Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

Reactivity	When the product is heated, it loses water, eventually forming anhydrous borates (Na ₂ B ₄ O ₇).
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.
Conditions to avoid	Avoid high temperatures and intense heat.
Incompatible materials	Strong oxidants, strong acids.
Hazardous decomposition products	No decomposition product.

11. Toxicological information

Numerical measures of toxicity	Disodium tetraborate decahydrate Ingestion 2660 mg/kg Rat LD50 Inhalation >2 mg/l/4h Rat LC50 Skin 10000 mg/kg Rabbit LD50
Likely routes of exposure	Skin, eyes, inhalation.
Delayed, immediate and chronic effects	<p>Eye contact May cause itching, redness and irritation of the eyes. Sodium tetraborate is irritating to the eyes in rabbits (OECD 405).</p> <p>Skin contact Prolonged and repeated contact may cause skin dryness and irritation. Sodium tetraborate is reported to either not irritate the skin or slightly irritate the skin in animal studies.</p> <p>Inhalation Inhalation of boric acid, borates and borax as dusts in workers produce nasal and throat irritation, cough and breathlessness. No effects on lung function were observed. It was concluded that these effects are most likely due to the physical exposure to the dust of these chemicals rather than a specific irritant chemical effect.</p> <p>Ingestion There is a large database of accidental or intentional boron poisoning incidents in humans following exposure to simple inorganic borates. A review of more than 700 cases of acute boric acid exposures in adults and children found that 88.3% of cases were without symptoms. Swallowing high doses of inorganic borate salts may cause</p>

	<p>gastrointestinal symptoms. These may include nausea, vomiting, and diarrhoea, with delayed effects of skin redness and peeling.</p> <p>Respiratory or skin sensitization Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.</p> <p>IARC/NTP Classification No ingredients listed.</p> <p>Carcinogenicity Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.</p> <p>Mutagenicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.</p> <p>Reproductive toxicity Sodium tetraborate may cause adverse effects on sperm production and may also cause an embryotoxic and/or fetotoxic in animals.</p> <p>Specific target organ toxicity - single exposure No target organ is listed.</p> <p>Specific target organ toxicity - repeated exposure No target organ is listed.</p>
Interactive effects	No information available.
Other information	No additional information.

12. Ecological information

Ecological toxicity	<p>Fish - Fathead minnow, Pimephales promelas - fresh water LC50 79.7 mg borate/L; 96h (CAS no 1303-96-4)</p> <p>Aquatic Invertebrate - Ceriodaphnia dubia (fresh water) EC50 91 mg borate/L; 48h (CAS no 1303-96-4)</p> <p>Aquatic plant - Pseudokirchneriella subcapitata - Fresh water EC50 52.4 mg borate/L; 72h (CAS no 1303-96-4)</p>
Persistence	Inorganic compounds persist in the environment indefinitely or incorporate into biological systems.
Degradability	The term biodegradability, as such, is not applicable to inorganic compounds.
Bioaccumulative potential	Inorganic compounds may be incorporate into biological systems.
Mobility in soil	Based on the high solubility in water, a high mobility in soil is to be expected.
Other adverse effects	This chemical does not deplete the ozone layer.

13. Disposal considerations

	<p>Container Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. Dispose via a licensed waste disposal contractor. Empty containers can be treated (recycled) where there is a recovery program. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.</p>
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14. Transport information

UN Number	UN N/A
UN Proper Shipping Name	Not regulated by TDG (Canada) and 49 CFR DOT (USA).
Environmental hazards	This material does not contain marine pollutant.
Special precautions for user	No information available.
TDG - Transportation of Dangerous Goods (Canada & US DOT)	
Transport hazard class(es)	Not regulated
Packing group	Not regulated
Emergency response guidebook 2016	
IMO/IMDG - International Maritime Transport	
Classification	Not regulated
IATA - International Air Transport Association	
Classification	Not regulated
<p>These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.</p>	

15. Regulatory information

CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
Disodium tetraborate decahydrate	1303-96-4		X		

- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act
- DSL: Domestic Substances List Inventory
- NDSL: Non-Domestic Substances List Inventory
- NPRI: National Pollutant Release Inventory Substances

UNITED STATE OF AMERICA

Common name	CAS	TSCA	CER CLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Prio.
Disodium tetraborate decahydrate	1303-96-4	X								

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65

No ingredients listed.

Other regulations



16. Other information

**Date
(YYYY-MM-DD)**

Sylvite 2020-05-07

Version

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Other information

REFERENCES:

- Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), <http://www.reptox.csst.qc.ca>
- Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, <https://haz-map.com/>
- National Industrial Chemicals Notification and Assessment Scheme (NICNAS), Government of Australia, <https://www.nicnas.gov.au/chemical-information>
- The National Center for Biotechnology Information, National Institutes of Health (NIH), U.S. National Library of Medicine, <https://pubchem.ncbi.nlm.nih.gov/>

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

HMIS: Hazardous Materials Identification System

NFPA: National Fire Protection Association

OSHA: Occupational Safety and Health Administration (USA)

NIOSH: National Institute for Occupational Safety and Health

NTP: National Toxicology Program

RSST: Règlement sur la santé et la sécurité du travail (Québec)

GHS: Globally Harmonized System

IARC: International Agency for Research on Cancer

IDLH: Immediately Dangerous to Life or Health

STEL: Short Term Exposure Limit (15 min)

TWA: Time Weighted Averages

WHMIS: Workplace Hazardous Materials Information System

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