

# SAFETY DATA SHEET


Buffer solution pH 9

## Section 1. Identification

**GHS product identifier** : Buffer solution pH 9

**Other means of identification** : Not available.

**Product use** : Laboratory chemicals.

**Supplier's details** :  **Manufacturer**  
**Metrohm AG**  
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9100 Herisau  
Switzerland  
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Fax: +41 (0)71 353 89 01  
E-Mail: [info@metrohm.com](mailto:info@metrohm.com)  
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Supplier  
**Metrohm USA, Inc.**  
9250 Camden Field Parkway  
Riverview, FL 33578  
USA

Tel.: +1 (813) 316 4700  
Fax: +1 (813) 316 4900  
E-Mail: [info@metrohmusa.com](mailto:info@metrohmusa.com)

**e-mail address of person responsible for this SDS** : [datasheet@metrohm.com](mailto:datasheet@metrohm.com)

**Emergency telephone number (with hours of operation)** : USA Domestic: 1 800 535 5053; International: (001) 352 323 3500 (24 h, GBK / Infotrac ID 108225)

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : TOXIC TO REPRODUCTION - Category 1B

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : May damage fertility or the unborn child.

**Precautionary statements**

## Section 2. Hazards identification

<b>Prevention</b>	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection.
<b>Response</b>	: IF exposed or concerned: Get medical advice or attention.
<b>Storage</b>	: Store locked up.
<b>Disposal</b>	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazards not otherwise classified</b>	: None known.
<b>Hazards identified when used</b>	: <input checked="" type="checkbox"/> No known significant effects or critical hazards.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

Ingredient name	Synonyms	%	Identifiers
Disodium tetraborate decahydrate	borax decahydrate; Borax; Sodium tetraborate, decahydrate; Borates, tetra, sodium salts, Decahydrate; BORATES, TETRA, SODIUM SALTS DECAHYDRATE; Sodium Tetraborate Decahydrate; Sodium borate decahydrate; Borates, tetra, sodium salts (decahydrate); Borates, tetra, sodium salts: Decahydrate; disodium tetraborate decahydrate, other than natural borate of heading N° 2528; borax; borax decahydrate; sodium tetraborate decahydrate; sodium baborate decahydrate; sodium pyroborate decahydrate; E 285	≥0.1 - ≤1	CAS: 1303-96-4
boric acid	Boric acid (H3BO3); Orthoboric acid; boric acid, other than natural boric acid of heading N° 2528; boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight; E 284; boracic acid; orthoboric acid; borofax; TRIHYDROXYBORANE; BORON TRIHYDROXIDE; Boracic acid; trioxoboric acid; Trihydroxidoboron; Trihydrogen trioxoborate	≥0.1 - ≤1	CAS: 10043-35-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam. Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products** : No specific data.

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Remark (Explosibility)** : Not considered to be a product presenting a risk of explosion.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

## Section 7. Handling and storage

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 15 to 25°C (59 to 77°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
disodium tetraborate decahydrate	<p><b>NIOSH REL (United States, 10/2020)</b> TWA 10 hours: 5 mg/m<sup>3</sup>.</p> <p><b>CAL OSHA PEL (United States, 5/2018)</b> <b>[borates, tetra, sodium salts, decahydrate]</b> TWA 8 hours: 5 mg/m<sup>3</sup>.</p> <p><b>OSHA PEL 1989 (United States, 3/1989)</b> TWA 8 hours: 10 mg/m<sup>3</sup>.</p> <p><b>ACGIH TLV (United States, 1/2024) [Borate compounds, Inorganic] A4.</b> TWA 8 hours: 2 mg/m<sup>3</sup>. Form: Inhalable fraction. STEL 15 minutes: 6 mg/m<sup>3</sup>. Form: Inhalable fraction.</p>
boric acid	<p><b>ACGIH TLV (United States, 1/2024) [Borate compounds, Inorganic] A4.</b> TWA 8 hours: 2 mg/m<sup>3</sup>. Form: Inhalable fraction. STEL 15 minutes: 6 mg/m<sup>3</sup>. Form: Inhalable fraction.</p>

#### Biological exposure indices

None known.

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

#### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## Section 8. Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.  
**Recommended:** Ensure an MSHA/NIOSH-approved respirator or equivalent is used.

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Liquid.
- Color** : Colorless.
- Odor** : Odorless.
- Odor threshold** : Not available.
- pH** : 9
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : 103.4 to 103.8°C (218.1 to 218.8°F)
- Flash point** : Not applicable.
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapor pressure** : 2.3 kPa (17.251 mm Hg)
- Relative vapor density** : Not available.
- Relative density** : Not available.
- Density** : 1.0023 g/cm<sup>3</sup> [20°C (68°F)]
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- Viscosity** :  Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C (104°F)): Not available.

## Section 9. Physical and chemical properties

**Explosive properties** : Not considered to be a product presenting a risk of explosion.

**Oxidizing properties** : Not available.

### Particle characteristics

**Median particle size** : Not applicable.

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Keep away from heat, sparks and flame.

**Incompatible materials** : No specific data.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result and Species	Dose [Exposure]	Remarks
Sodium tetraborate decahydrate	Oral - Rat - Male, Female - LD50 [OECD 401]	>2500 mg/kg	-
	Oral - Rabbit - Male, Female - LD50 [OECD 403]	>2000 mg/kg	read-across, CAS: 12179-04-3
boric acid	Inhalation - Rat - Male, Female - LC50 Dusts and mists	>2.12 mg/l [4 hours]	-
	Oral - Rat - Male, Female - LD50 [ECHA]	3450 mg/kg	-
	Oral - Rabbit - Male, Female - LD50 [OECD 403]	>2000 mg/kg	-
	Inhalation - Rat - Male, Female - LC50 Dusts and mists	>2.12 mg/l [4 hours]	-

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

#### Irritation/Corrosion

Product/ingredient name	Result and Species	Exposure	Remarks
Sodium tetraborate decahydrate	Skin - Rabbit - Non-irritating to the skin.	Duration of treatment/ exposure: 24 hours	read-across, CAS: 12179-04-3
	Eyes - Rabbit - Irritant - [OECD 405]	-	-
boric acid	Skin - Rabbit - Non-irritating to the skin. - [ECHA]	Duration of treatment/ exposure: 24 hours	-
	Eyes - Rabbit - Non-irritating to the eyes. - [OECD 405]	Duration of treatment/ exposure: 24 hours	-

**Conclusion/Summary**

## Section 11. Toxicological information

- Skin** : Based on available data, the classification criteria are not met.  
**Eyes** : Based on available data, the classification criteria are not met.  
**Respiratory** : Not available.

### Respiratory or skin sensitization

Product/ingredient name	Route of exposure and Species	Result	Remarks
Disodium tetraborate decahydrate	skin - Guinea pig [OECD 406]	Not sensitizing	-
boric acid	skin - Guinea pig [OECD 406]	Not sensitizing	-

### Conclusion/Summary

- Skin** : Based on available data, the classification criteria are not met.  
**Respiratory** : Not available.

### Mutagenicity

Product/ingredient name	Result	Experiment	Remarks
Disodium tetraborate decahydrate        boric acid	Negative	Mammalian-Animal	-
	Negative [Ames, OECD 471]	Bacteria	S. typhimurium
	Negative [OECD 476]	In vitro - Mammalian-Animal	-
	Negative [OECD 474]	Mammalian-Animal - Oral	-
	Negative	Mammalian-Animal	-
	Negative [Ames, OECD 471]	Bacteria	S. typhimurium
	Negative [OECD 476]	In vitro - Mammalian-Animal	-
	Negative [OECD 482]	Mammalian-Animal	-
Negative [OECD 474, Micronucleus-test]	Mammalian-Animal - Oral	-	

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

### Carcinogenicity

- Conclusion/Summary** : No known significant effects or critical hazards.

### Reproductive toxicity

- Conclusion/Summary** : May damage fertility. May damage the unborn child.

### Teratogenicity

- Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

## Section 11. Toxicological information

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.  
**Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations  
**Skin contact** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations  
**Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### Potential chronic health effects

Product/ingredient name	Result and Species	Dose [Exposure]	Remarks
Disodium tetraborate decahydrate	Oral - Chronic - Rat - Male, Female --	100 mg/kg	-
	Oral - Chronic - Rat - Male, Female --	334 mg/kg	-
boric acid	Oral - Chronic - Rat - Male, Female --	17.5 mg/kg	-
	Oral - Chronic - Rat - Male, Female --	58.5 mg/kg	-

**Conclusion/Summary** : Based on available data, the classification criteria are not met.  
**General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Reproductive toxicity** : May damage fertility or the unborn child.

### Numerical measures of toxicity

#### Acute toxicity estimates

## Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Disodium tetraborate decahydrate	2500	N/A	N/A	N/A	N/A
boric acid	3450	N/A	N/A	N/A	N/A

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result [Exposure]	Species	Remarks
Disodium tetraborate decahydrate  boric acid	Acute - EC50 1085 to 1402 mg/l [48 hours]	Daphnia - <i>Daphnia magna</i>	-
	Acute - EC50 158 mg/l [96 hours]	Algae - <i>Desmodesmus subspicatus</i>	-
	Acute - LC50 79.7 mg/l [96 hours] [US-EPA]	Fish - <i>Pimephales promelas</i>	-
	Acute - EC50 52.4 mg/l [74.5 hours] [OECD 201]	Algae - <i>Raphidocelis subcapitata</i>	-
	Acute - EC50 133 mg/l [48 hours]	Daphnia - <i>Daphnia magna</i>	-

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

### Persistence and degradability

**Conclusion/Summary** : There are no data available on the mixture itself.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
boric acid	-1.09	-	Low

### Mobility in soil

**Soil/Water partition coefficient** : Not available.

**Mobility** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been

## Section 13. Disposal considerations

cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-	-
Label						
Packing group	-	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	Marine Pollutant: No	No.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** :  Not intended.

## Section 15. Regulatory information

### U.S. Federal regulations

**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined

### TSCA 12(b) - Chemical export notification

Not applicable.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : TOXIC TO REPRODUCTION - Category 1B

## Section 15. Regulatory information

### Composition/information on ingredients

Name	%	Classification
Sodium tetraborate decahydrate	≥0.1 - ≤1	EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - Category 1B
boric acid	≥0.1 - ≤1	TOXIC TO REPRODUCTION - Category 1B

### State regulations

- Massachusetts** : None of the components are listed.  
**New York** : None of the components are listed.  
**New Jersey** : None of the components are listed.  
**Pennsylvania** : None of the components are listed.

### California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

### EPA PFAS Compilation from Comptox

Not listed.

### TSCA 8(a)7 - One-time Reporting PFAS

Not listed.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

#### OECD Comprehensive Global PFAS Database

Not listed.

### Inventory list

- Australia** : All components are listed or exempted.  
**Canada** : All components are listed or exempted.  
**China** : All components are listed or exempted.  
**Eurasian Economic Union** : **Russian Federation inventory**: All components are listed or exempted.  
**Japan** : **Japan inventory (CSCL)**:  
All components are listed or exempted.  
**New Zealand** : All components are listed or exempted.  
**Philippines** : All components are listed or exempted.  
**Republic of Korea** : All components are listed or exempted.  
**Taiwan** : All components are listed or exempted.  
**Thailand** : All components are listed or exempted.  
**United States** : All components are active or exempted.  
**Viet Nam** : All components are listed or exempted.

## Section 16. Other information

### National Fire Protection Association (U.S.A.)



### Procedure used to derive the classification

Classification	Justification
TOXIC TO REPRODUCTION - Category 1B	Calculation method

### History

Date of printing : 08/13/2025

Date of issue/Date of revision : 08/13/2025

Date of previous issue : 09/25/2023

Version : 4

**Key to abbreviations** :

- ADR = Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- DOT = Department of Transportation
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
- SGG = Segregation Group
- TDG = Transportation of Dangerous Goods
- UN = United Nations

**References** : Not available.

🔵 Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.