



## Safety Data Sheet acc. to OSHA HCS

Printing date 06/23/2021

Reviewed on 06/23/2021

### 1 Identification

- **Product identifier**
- **Product name:** Boron Standard: 1000 µg/mL B in H<sub>2</sub>O [500ml bottle]
- **Part number:** 5190-8255
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Agilent Technologies, Inc.  
5301 Stevens Creek Blvd  
Santa Clara, CA 95051,  
USA
- **Information department:** e-mail: [pdl-msds\\_author@agilent.com](mailto:pdl-msds_author@agilent.com)
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

Tel: 800-227-9770

### 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Repr. 1B H360 May damage fertility or the unborn child.

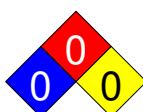
- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard statements**  
H360 May damage fertility or the unborn child.
- **Precautionary statements**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 0

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### Product name: Boron Standard: 1000 µg/mL B in H<sub>2</sub>O [500ml bottle]

#### · HMIS-ratings (scale 0 - 4)

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

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#### · Other hazards

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

#### · Chemical characterization: Mixtures

· Description: Aqueous solution.

#### · Dangerous components:

CAS: 10043-35-3	Boric acid	 Repr. 1B, H360	<0.25%
RTECS: ED 4550000			

### 4 First-aid measures

#### · Description of first aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Rinse mouth. Do not induce vomiting.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

#### · Extinguishing media

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

#### · Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

#### · Advice for firefighters

· **Protective equipment:** Wear self-contained respiratory protective device.

### 6 Accidental release measures

#### · Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

#### · Environmental precautions

Dilute with plenty of water.

#### · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

#### · Reference to other sections

See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- **Protective Action Criteria for Chemicals**

- **PAC-1:**

CAS: 10043-35-3	Boric acid	6 mg/m <sup>3</sup>
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- **PAC-2:**

CAS: 10043-35-3	Boric acid	23 mg/m <sup>3</sup>
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- **PAC-3:**

CAS: 10043-35-3	Boric acid	830 mg/m <sup>3</sup>
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### 7 Handling and storage

- **Handling:**

- **Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.

- **Information about protection against explosions and fires:** No special measures required.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

- Please refer to the manufacturers certificate for specific storage and transport temperature conditions.

- Store only in the original receptacle unless other advice is given on the CoA.

- Keep container in a well-ventilated place. Keep away from sources of ignition and heat.

- **Information about storage in one common storage facility:** Store away from foodstuffs.

- **Further information about storage conditions:** None.

- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

- CAS: 10043-35-3 Boric acid

- TLV Short-term value: 6 mg/m<sup>3</sup>

- Long-term value: 2 mg/m<sup>3</sup>  
as inhalable fraction

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.

- **Breathing equipment:** Not required.

- **Protection of hands:**

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374



Protective gloves

- **Material of gloves** Nitrile rubber, NBR

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Safety glasses

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Liquid
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Color:	Colorless
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- **Odor:**

Odorless
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- **Odor threshold:**

Not determined.
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- **pH-value:**

Not determined.
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- **Change in condition**

Melting point/Melting range:	0 °C (32 °F)
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Boiling point/Boiling range:	100 °C (212 °F)
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- **Flash point:**

Not applicable.
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- **Flammability (solid, gaseous):**

Not determined.
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- **Ignition temperature:**

Not determined
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- **Decomposition temperature:**

Not determined.
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- **Auto igniting:**

Product is not selfigniting.
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- **Danger of explosion:**

Not determined.
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- **Explosion limits:**

Lower:	Not determined.
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Upper:	Not determined.
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- **Vapor pressure at 20 °C (68 °F):**

23 hPa (17.3 mm Hg)
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- **Density at 20 °C (68 °F):**

1 g/cm <sup>3</sup> (8.345 lbs/gal)
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- **Relative density**

Not determined.
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- **Vapor density**

Not determined.
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- **Evaporation rate**

Not determined.
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- **Solubility in / Miscibility with**

Water:	Fully miscible.
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- **Partition coefficient (n-octanol/water):** Not determined.

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<b>· Viscosity:</b>	
<b>Dynamic:</b>	<i>Not determined.</i>
<b>Kinematic:</b>	<i>Not determined.</i>
<b>· Other information</b>	<i>No further relevant information available.</i>

### 10 Stability and reactivity

- Reactivity**  
*Stable under normal conditions.*  
*No further relevant information available.*
- Chemical stability** *Stable under normal conditions.*
- Thermal decomposition / conditions to be avoided:**  
*Formation of toxic gases is possible during heating or in case of fire.*
- Possibility of hazardous reactions** *No dangerous reactions known.*
- Conditions to avoid** *Heat.*
- Incompatible materials:** *Strong oxidizing agents.*
- Hazardous decomposition products:** *Formation of toxic gases is possible during heating or in case of fire.*

### 11 Toxicological information

- Information on toxicological effects**
- Acute toxicity:**
- Primary irritant effect:**
- on the skin:** *Based on available data, the classification criteria are not met.*
- on the eye:** *Based on available data, the classification criteria are not met.*
- Sensitization:** *Based on available data, the classification criteria are not met.*
- Additional toxicological information:**
- Carcinogenic categories**
- IARC (International Agency for Research on Cancer)**  
*None of the ingredients is listed.*
- NTP (National Toxicology Program)**  
*None of the ingredients is listed.*
- OSHA-Ca (Occupational Safety & Health Administration)**  
*None of the ingredients is listed.*
- Reproductive toxicity** *May damage fertility or the unborn child.*

### 12 Ecological information

- Toxicity**
- Aquatic toxicity:** *No further relevant information available.*
- Persistence and degradability** *No further relevant information available.*
- Behavior in environmental systems:**
- Bioaccumulative potential** *No further relevant information available.*
- Mobility in soil** *No further relevant information available.*

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- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Dispose in accordance with national regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- |  |                 |
|--|-----------------|
| · <b>UN-Number</b>   |                 |
| · <b>DOT, ADR, IMDG, IATA</b>  | Not applicable  |
| · <b>DOT, ADR, IMDG, IATA</b>  | Not applicable  |
| · <b>Transport hazard class(es)</b>  |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   |                 |
| · <b>Class</b>   | Not applicable  |
| · <b>Packing group</b>   |                 |
| · <b>DOT, ADR, IMDG, IATA</b>  | Not applicable  |
| · <b>Environmental hazards:</b>  | Not applicable. |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | Not applicable  |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **Sara**
- **Section 355 (extremely hazardous substances):**  
None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):**  
None of the ingredients is listed.

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· **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

CAS: 10043-35-3 Boric acid

I (oral)

· **TLV (Threshold Limit Value)**

CAS: 10043-35-3 Boric acid

A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **Hazard pictograms**



GHS08

· **Signal word Danger**

· **Hazard statements**

H360 May damage fertility or the unborn child.

· **Precautionary statements**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

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***· Contact:***

***· Date of preparation / last revision*** 06/23/2021 / -

***· Abbreviations and acronyms:***

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Repr. 1B: Reproductive toxicity – Category 1B

***· Sources***

Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.

***· Data compared to the previous version altered.*** All sections have been updated.

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