

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/21/2017

Reviewed on 11/21/2017

## 1 Identification

- **Product identifier**
- **Trade name:** Boric Acid Solution  
Saturated
- **Article number:** HON014
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Aqua Solutions, Inc.  
6913 Highway 225  
DEER PARK, TX 77536  
USA  
800-256-2586
- **Information department:**  
Technical Coordinator  
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**  
Chemtrec: 800-424-9300  
Canutec: 613-996-6666



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Repr. 1 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-determining components of labeling:**  
*Boric Acid*
- **Hazard statements**  
*May damage fertility or the unborn child.*
- **Precautionary statements**  
*Obtain special instructions before use.*  
*Do not handle until all safety precautions have been read and understood.*  
*Wear protective gloves/protective clothing/eye protection/face protection.*  
*IF exposed or concerned: Get medical advice/attention.*  
*Store locked up.*  
*Dispose of contents/container in accordance with local/regional/national/international regulations.*

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/21/2017

Reviewed on 11/21/2017

**Trade name: Boric Acid Solution**  
**Saturated**

(Contd. of page 1)

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

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

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 10043-35-3	Boric Acid	5.893%
-----------------	------------	--------

· **Table of Nonhazardous Ingredients**

CAS: 7732-18-5	Water	94.107%
----------------	-------	---------

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

US

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/21/2017

Reviewed on 11/21/2017

**Trade name: Boric Acid Solution**  
**Saturated**

(Contd. of page 2)

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
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>
-----------------	------------	---------------------

- **PAC-2:**

CAS: 10043-35-3	Boric Acid	23 mg/m <sup>3</sup>
-----------------	------------	----------------------

- **PAC-3:**

CAS: 10043-35-3	Boric Acid	830 mg/m <sup>3</sup>
-----------------	------------	-----------------------

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **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:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **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:**  
Keep away from foodstuffs, beverages and feed.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/21/2017

Reviewed on 11/21/2017

**Trade name: Boric Acid Solution**  
**Saturated**

(Contd. of page 3)

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.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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:** Goggles recommended during refilling.

· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

**Form:** Liquid

**Color:** Opaque

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 100 °C (212 °F)

· **Flash point:** Not applicable.

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

· **Ignition temperature:**

**Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

**Lower:** Not determined.

**Upper:** Not determined.

· **Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

· **Density at 20 °C (68 °F):** 1.01819 g/cm<sup>3</sup> (8.4968 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/21/2017

Reviewed on 11/21/2017

**Trade name: Boric Acid Solution**  
**Saturated**

(Contd. of page 4)

- |   |  |
|---|--|
| <b>· Solubility in / Miscibility with Water:</b>  | Fully miscible.                            |
| <b>· Partition coefficient (n-octanol/water):</b> | Not determined.                            |
| <b>· Viscosity:</b>                               |  |
| <b>Dynamic:</b>                                   | Not determined.                            |
| <b>Kinematic:</b>                                 | Not determined.                            |
| <b>· Solvent content:</b>                         |  |
| <b>Water:</b>                                     | 94.1 %                                     |
| <b>VOC content:</b>                               | 0.00 %                                     |
|   | 0.0 g/l / 0.00 lb/gl                       |
| <b>Solids content:</b>                            | 5.9 %                                      |
| <b>· Other information</b>                        | No further relevant information available. |

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

### · Information on toxicological effects

#### · Acute toxicity:

#### · LD/LC50 values that are relevant for classification:

**ATE (Acute Toxicity Estimate)**

Oral	LD50	45,140 mg/kg (rat)
------	------	--------------------

**CAS: 10043-35-3 Boric Acid**

Oral	LD50	2,660 mg/kg (rat)
------	------	-------------------

#### · Primary irritant effect:

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

#### · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

#### · 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.

(Contd. on page 6)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 11/21/2017

Reviewed on 11/21/2017

**Trade name: Boric Acid Solution**  
**Saturated**

(Contd. of page 5)

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

### 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.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- |                                       |                 |
|---------------------------------------|-----------------|
| · <b>UN-Number</b>                    |                 |
| · <b>DOT, ADN, IMDG, IATA</b>         | Not regulated   |
| · <b>UN proper shipping name</b>      |                 |
| · <b>DOT, ADN, IMDG, IATA</b>         | Not regulated   |
| · <b>Transport hazard class(es)</b>   |                 |
| · <b>DOT, ADN, IMDG, IATA</b>         |                 |
| · <b>Class</b>                        | Not regulated   |
| · <b>Packing group</b>                |                 |
| · <b>DOT, IMDG, IATA</b>              | Not regulated   |
| · <b>Environmental hazards:</b>       |                 |
| · <b>Marine pollutant:</b>            | No              |
| · <b>Special precautions for user</b> | Not applicable. |

(Contd. on page 7)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/21/2017

Reviewed on 11/21/2017

**Trade name: Boric Acid Solution**  
**Saturated**

(Contd. of page 6)

- |  |                        |
|--|------------------------|
| <b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | <i>Not applicable.</i> |
| <b>· UN "Model Regulation":</b>  | <i>Not regulated</i>   |

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

*None of the ingredients is listed.*

- **Section 313 (Specific toxic chemical listings):**

*None of the ingredients is listed.*

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

*Boric Acid*

*Water*

- **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 established by ACGIH)**

CAS: 10043-35-3 | *Boric Acid*

*A4*

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

*None of the ingredients is listed.*

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

- **Hazard pictograms**



GHS08

- **Signal word** *Danger*

- **Hazard-determining components of labeling:**

*Boric Acid*

(Contd. on page 8)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 11/21/2017

Reviewed on 11/21/2017

**Trade name: Boric Acid Solution**  
**Saturated**

(Contd. of page 7)

- **Hazard statements**  
*May damage fertility or the unborn child.*
- **Precautionary statements**  
*Obtain special instructions before use.*  
*Do not handle until all safety precautions have been read and understood.*  
*Wear protective gloves/protective clothing/eye protection/face protection.*  
*IF exposed or concerned: Get medical advice/attention.*  
*Store locked up.*  
*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

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing SDS:** *Environment protection department.*
- **Contact:**
- **Date of preparation / last revision**  
*11-21-2017: review SDS for accuracy. STN*  
*Revision 0.0, 06-11-2015: creation date for SDS. STN*  
*11/21/2017 / -*
- **Abbreviations and acronyms:**  
*ADR: Accord européen sur le transport 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*  
*ACGIH: American Conference of Governmental Industrial Hygienists*  
*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)*  
*VOC: Volatile Organic Compounds (USA, EU)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*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. 1: Reproductive toxicity – Category 1*

US