

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/09/2013

Reviewed on 12/09/2013

1 Identification

- **Product identifier**
- **Trade name:** boric acid
- **Article number:** 11460
- **CAS Number:**
10043-35-3
- **EC number:**
233-139-2
- **Index number:**
005-007-00-2
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

H360 May damage fertility or the unborn child.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Toxic

Repr. Cat. 2

May impair fertility. May cause harm to the unborn child.

- **Information concerning particular hazards for human and environment:** Not applicable.

- **Label elements**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

- **Code letter and hazard designation of product:**



Repr. Cat. 2

Toxic

- **Risk phrases:**

May impair fertility.

May cause harm to the unborn child.

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Trade name: boric acid

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- **Safety phrases:**

Avoid exposure - obtain special instructions before use.

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

- **Classification system:**

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



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



- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**

- **CAS No. Description**

10043-35-3 boric acid

- **Identification number(s)**

- **EC number:** 233-139-2

- **Index number:** 005-007-00-2

- **SVHC**

10043-35-3	boric acid
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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:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **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:**

10043-35-3 boric acid

TLV	Short-term value: 6* mg/m ³ Long-term value: 2* mg/m ³ *as inhalable fraction
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- **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.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
- **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

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- **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.

- **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:** Not required.

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form: Not determined.

Color: Not determined.

- **Odor:** Characteristic

- **Odour threshold:** Not determined.

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

- **Change in condition**

Melting point/Melting range: 169 °C (336 °F) (Zers.)

Boiling point/Boiling range: 300 °C (572 °F)

- **Flash point:** Not applicable.

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

- **Ignition temperature:**

Decomposition temperature: Not determined.

- **Auto igniting:** Not determined.

- **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):** 0 hPa

- **Density at 20 °C (68 °F):** 1.435 g/cm³ (11.975 lbs/gal)

- **Bulk density at 20 °C (68 °F):** 500 kg/m³

- **Relative density** Not determined.

- **Vapour density** Not determined.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

Water at 20 °C (68 °F): 300 g/l

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

- **Viscosity:**

Dynamic: Not determined.

Kinematic: Not determined.

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Trade name: boric acid

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· **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **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:**

Oral	LD50	2660 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not 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 (Assessment by list): 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.

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Trade name: boric acid

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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.

14 Transport information

· UN-Number	
· DOT, ADR, IMDG, IATA	Void
· UN proper shipping name	
· DOT, ADR, IMDG, IATA	Void
· Transport hazard class(es)	
· DOT, ADR, IMDG, IATA	
· Class	Void
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No Yes (PP)
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	-

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is not listed.
- **TSCA (Toxic Substances Control Act):** Substance is listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.

· TLV (Threshold Limit Value established by ACGIH)	
10043-35-3 boric acid	A4

- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

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· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**



Repr. Cat. 2
Toxic

· **Risk phrases:**

May impair fertility.

May cause harm to the unborn child.

· **Safety phrases:**

Avoid exposure - obtain special instructions before use.

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

· **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.

· **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)

PP: Severe Marine Pollutant

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

USA

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 09.12.2013


Revision: 09.12.2013


1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** boric acid
- **Article number:** 11460
- **CAS Number:**
10043-35-3
- **EC number:**
233-139-2
- **Index number:**
005-007-00-2
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com

ProSciTech Pty Ltd
11 Carlton Street, Kirwan QLD 4817 Australia
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 Toxic
Repr. Cat. 2
May impair fertility. May cause harm to the unborn child.
- **Information concerning particular hazards for human and environment:** Not applicable.

- **Label elements**
- **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Code letter and hazard designation of product:**
 Repr. Cat. 2
Toxic
- **Risk phrases:**
May impair fertility.

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Safety data sheet

according to 1907/2006/EC, Article 31

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Trade name: boric acid

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May cause harm to the unborn child.

· **Information concerning particular hazards for human and environment:**

· **Safety phrases:**

Avoid exposure - obtain special instructions before use.

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

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

10043-35-3 boric acid

· **Identification number(s)**

· **EC number:** 233-139-2

· **Index number:** 005-007-00-2

· **SVHC**

10043-35-3	boric acid
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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 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards arising from the substance or mixture** No further relevant information available.

· **Advice for firefighters**

· **Protective equipment:** No special measures required.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Not required.

· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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

Dispose contaminated material as waste according to item 13.

· **Reference to other sections**

See Section 7 for information on safe handling.

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Trade name: boric acid

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See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Open and handle receptacle with care.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **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 facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
- **Respiratory protection:** 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.
- **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:** Not required.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Not determined.
Colour:	Not determined.

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Trade name: boric acid

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· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	169 °C (Zers.)
Boiling point/Boiling range:	300 °C
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Self-igniting:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	0 hPa
· Density at 20 °C:	1.435 g/cm ³
· Bulk density at 20 °C:	500 kg/m ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water at 20 °C:	300 g/l
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **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.

AU

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Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 09.12.2013

Revision: 09.12.2013

Trade name: boric acid

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11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

Oral	LD50	2660 mg/kg (rat)
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- **Primary irritant effect:**

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

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

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

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**

Repr. Cat. 2

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Behaviour 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 (German Regulation) (Assessment by list): 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 together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**

- **ADG, ADN, IMDG, IATA** Void

- **UN proper shipping name**

- **ADG, ADN, IMDG, IATA** Void

- **Transport hazard class(es)**

- **ADG, ADN, IMDG, IATA**

- **Class** Void

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Trade name: boric acid

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- | | |
|--|-----------------|
| · Packing group | |
| · ADG, IMDG, IATA | Void |
| · Environmental hazards: | |
| · Marine pollutant: | No
Yes (PP) |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Australian Inventory of Chemical Substances** Substance is listed.

- **Standard for the Uniform Scheduling of Drugs and Poisons**

10043-35-3 | boric acid

S5

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- **Code letter and hazard designation of product:**



Repr. Cat. 2
Toxic

- **Risk phrases:**

May impair fertility.

May cause harm to the unborn child.

- **Safety phrases:**

Avoid exposure - obtain special instructions before use.

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

- **National regulations:**

- **Other regulations, limitations and prohibitive regulations**

- **Substances of very high concern (SVHC) according to REACH, Article 57**

10043-35-3 | boric acid

- **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.

-AU

Safety Data Sheet

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1 Identification

- **Product identifier**
- **Trade name:** boric acid
- **Article number:** 11460
- **CAS Number:**
10043-35-3
- **EC number:**
233-139-2
- **Index number:**
005-007-00-2
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

H360 May damage fertility or the unborn child.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Toxic

Repr. Cat. 2

May impair fertility. May cause harm to the unborn child.

- **Information concerning particular hazards for human and environment:** Not applicable.

- **Label elements**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

- **Code letter and hazard designation of product:**



Repr. Cat. 2

Toxic

- **Risk phrases:**

May impair fertility.

May cause harm to the unborn child.

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Trade name: boric acid

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- **Safety phrases:**

Avoid exposure - obtain special instructions before use.

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

- **Hazard description:**

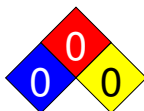
- **WHMIS-symbols:**

D2A - Very toxic material causing other toxic effects



- **Classification system:**

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



Health = 0

Fire = 0

Reactivity = 0

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

HEALTH	*1
FIRE	0
REACTIVITY	0

*Health = *1*

Fire = 0

Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**

- **CAS No. Description**

10043-35-3 boric acid

- **Identification number(s)**

· **EC number:** 233-139-2

· **Index number:** 005-007-00-2

- **SVHC**

<i>10043-35-3</i>	<i>boric acid</i>
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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.

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Trade name: boric acid

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- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **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:**

10043-35-3 boric acid

EL	Short-term value: 6 mg/m ³ Long-term value: 2 mg/m ³
EV	Short-term value: 6 mg/m ³ Long-term value: 2 mg/m ³ inorganic, inhalable

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

(Contd. on page 4)

CA

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/09/2013

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Trade name: boric acid

(Contd. of page 3)

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.
 Store protective clothing separately.
- **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.
- **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:** Not required.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Not determined.
Color:	Not determined.
- **Odor:** Characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

Melting point/Melting range:	169 °C (Zers.)
Boiling point/Boiling range:	300 °C
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not flammable.
- **Ignition temperature:**
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Not determined.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.
- **Vapor pressure at 20 °C:** 0 hPa
- **Density at 20 °C:** 1.435 g/cm³
- **Bulk density at 20 °C:** 500 kg/m³

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

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Reviewed on 12/09/2013

Trade name: boric acid

(Contd. of page 4)

- | | |
|---|--|
| · Relative density | Not determined. |
| · Vapour density | Not determined. |
| · Evaporation rate | Not applicable. |
| · Solubility in / Miscibility with Water at 20 °C: | 300 g/l |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| · Dynamic: | Not determined. |
| · Kinematic: | Not determined. |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity**
- **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:**

Oral	LD50	2660 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:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not 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 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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Safety Data Sheet acc. to OSHA HCS

Printing date 12/09/2013

Reviewed on 12/09/2013

Trade name: boric acid

(Contd. of page 5)

- **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.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | |
| · DOT, TDG, ADN, IMDG, IATA | Void |
| · UN proper shipping name | |
| · DOT, TDG, ADN, IMDG, IATA | Void |
| · Transport hazard class(es) | |
| · DOT, TDG, ADN, IMDG, IATA | |
| · Class | Void |
| · Packing group | |
| · DOT, TDG, IMDG, IATA | Void |
| · Environmental hazards: | |
| · Marine pollutant: | No
Yes (PP) |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | - |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is not listed.
- **TSCA (Toxic Substances Control Act):** Substance is listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.

(Contd. on page 7)

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Trade name: boric acid

(Contd. of page 6)

- **Carcinogenic categories**
- **EPA (Environmental Protection Agency) Substance is not listed.**

- **TLV (Threshold Limit Value established by ACGIH)**

10043-35-3 | boric acid

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- **NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.**
- **OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.**
- **Canadian substance listings:**
- **Canadian Domestic Substances List (DSL) Substance is listed.**
- **Canadian Ingredient Disclosure list (limit 0.1%) Substance is not listed.**
- **Canadian Ingredient Disclosure list (limit 1%) Substance is listed.**
- **Product related hazard informations:**
The product has been classified and marked in accordance with directives on hazardous materials.

- **Hazard symbols:**



Repr. Cat. 2
Toxic

- **Risk phrases:**
May impair fertility.
May cause harm to the unborn child.
- **Safety phrases:**
Avoid exposure - obtain special instructions before use.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- **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.

- **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
PP: Severe Marine Pollutant
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

CA

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 09.12.2013

Revision: 09.12.2013

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** boric acid
- **Article number:** 11460
- **CAS Number:**
10043-35-3
- **EC number:**
233-139-2
- **Index number:**
005-007-00-2
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Repr. 1B H360FD May damage fertility. May damage the unborn child.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



T; Toxic

Repr. Cat. 2

R60-61: May impair fertility. May cause harm to the unborn child.

- **Information concerning particular hazards for human and environment:** Not applicable.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS08

- **Signal word** Danger

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 09.12.2013

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Trade name: boric acid

(Contd. of page 1)

- **Hazard statements**
H360FD May damage fertility. May damage the unborn child.
- **Precautionary statements**
P281 Use personal protective equipment as required.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
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.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
10043-35-3 boric acid
- **Identification number(s)**
- **EC number:** 233-139-2
- **Index number:** 005-007-00-2

· SVHC	
10043-35-3	boric acid

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 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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Safety data sheet
according to 1907/2006/EC, Article 31

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Trade name: boric acid

(Contd. of page 2)

- **Methods and material for containment and cleaning up:**
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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** *Open and handle receptacle with care.*
- **Information about fire - and explosion protection:** *Keep respiratory protective device available.*
- **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 facilities:** *No further data; see item 7.*
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** *Not required.*
- **Additional information:** *The lists valid during the making were used as basis.*
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
- **Respiratory protection:** *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.
- **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:** *Not required.*

GB

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

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Revision: 09.12.2013

Trade name: boric acid

(Contd. of page 3)

9 Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Not determined.
Colour:	Not determined.
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	169 °C (Zers.)
Boiling point/Boiling range:	300 °C
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Self-igniting:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	0 hPa
· Density at 20 °C:	1.435 g/cm ³
· Bulk density at 20 °C:	500 kg/m ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water at 20 °C:	300 g/l
· Partition coefficient (n-octanol/water): Not determined.	
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **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.

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Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 09.12.2013

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Trade name: boric acid

(Contd. of page 4)

· **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· **Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values relevant for classification:**

Oral	LD50	2660 mg/kg (rat)
------	------	------------------

· **Primary irritant effect:**· **on the skin:** No irritant effect.· **on the eye:** No irritating effect.· **Sensitization:** No sensitizing effects known.· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**

Repr. 1B

12 Ecological information

· **Toxicity**· **Aquatic toxicity:** No further relevant information available.· **Persistence and degradability** No further relevant information available.· **Behaviour 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 (German Regulation) (Assessment by list): 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 together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**· **ADR, ADN, IMDG, IATA**

Void

· **UN proper shipping name**· **ADR, ADN, IMDG, IATA**

Void

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

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Trade name: boric acid

(Contd. of page 5)

· Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	Void
· Packing group	
· ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No Yes (PP)
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	-

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

10043-35-3 | boric acid

- **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.

- **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

IATA: International Air Transport Association

PP: Severe Marine Pollutant

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 09.12.2013

Herziening van: 09.12.2013

1 Identificatie van de stof of het mengsel en van de vennootschap/onderneming

- **Productidentificatie**
- **Handelsnaam:** boorzuur
- **Artikelnummer:** 11460
- **CAS-nummer:**
10043-35-3
- **EC-nummer:**
233-139-2
- **Catalogusnummer:**
005-007-00-2
- **Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **Details betreffende de verstreker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Aurion**
Binnenhaven 5
6709 PD Wageningen
The Netherlands
Tel: 31 317 415094
Fax: 31 317 415955
email: info@aurion.nl
- **Inlichtinggevendende sector:** Product safety department
- **Telefoonnummer voor noodgevallen:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Identificatie van de gevaren

- **Indeling van de stof of het mengsel**
- **Indeling overeenkomstig Verordening (EG) nr. 1272/2008**



GHS08 gezondheidsgevaar

Repr. 1B H360FD Kan de vruchtbaarheid schaden. Kan het ongeboren kind schaden.

- **Indeling overeenkomstig Richtlijn 67/548/EEG of Richtlijn 1999/45/EG**



T; Vergiftig

Repr. Cat. 2

R60-61: Kan de vruchtbaarheid schaden. Kan het ongeboren kind schaden.

- **Speciale gevaaromschrijving voor mens en milieu:** Vervalt.

- **Etiketteringselementen**
- **Etikettering overeenkomstig Verordening (EG) nr. 1272/2008**
De stof product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.

(Vervolg op blz. 2)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 09.12.2013

Herziening van: 09.12.2013

Handelsnaam: boorzuur

(Vervolg van blz. 1)

- **Gevarenpictogrammen**



GHS08

- **Signaalwoord** Gevaar

- **Gevarenaanduidingen**

H360FD Kan de vruchtbaarheid schaden. Kan het ongeboren kind schaden.

- **Voorzorgsmaatregelen**

P281 De nodige persoonlijke beschermingsuitrusting gebruiken.

P201 Alvorens te gebruiken de speciale aanwijzingen raadplegen.

P202 Pas gebruiken nadat u alle veiligheidsvoorschriften gelezen en begrepen heeft.

P308+P313 NA (mogelijke) blootstelling: een arts raadplegen.

P405 Achter slot bewaren.

P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

- **Andere gevaren**

- **Resultaten van PBT- en zPzB-beoordeling**

- **PBT:** Niet bruikbaar.

- **zPzB:** Niet bruikbaar.

3 Samenstelling en informatie over de bestanddelen

- **Chemische karakterisering: Stoffen**

- **CAS-Nr. omschrijving**

10043-35-3 boorzuur

- **Identificatienummer(s)**

- **EC-nummer:** 233-139-2

- **Catalogusnummer:** 005-007-00-2

- **SVHC**

10043-35-3 boorzuur

4 Eerstehulpmaatregelen

- **Beschrijving van de eerstehulpmaatregelen**

- **Na het inademen:** Frisse lucht toedienen; bij klachten arts ontbieden.

- **Na huidcontact:** Over het algemeen is het produkt niet prikkelend voor de huid

- **Na oogcontact:** Ogen bij geopend ooglid meerdere minuten met stromend water spoelen

- **Na inslikken:** Als de klachten niet minderen, een arts raadplegen

- **Informatie voor de arts:**

- **Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.

- **Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**

Geen verdere relevante informatie verkrijgbaar.

NL
(Vervolg op blz. 3)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 09.12.2013

Herziening van: 09.12.2013

Handelsnaam: boorzuur

(Vervolg van blz. 2)

5 Brandbestrijdingsmaatregelen

- **Blusmiddelen**
- **Geschikte blusmiddelen:**
CO₂, bluspoeder of waterstraal. Grotere brand met waterstraal bestrijden of met schuim, dat tegen alcohol bestand is.
- **Speciale gevaren die door de stof of het mengsel worden veroorzaakt**
Geen verdere relevante informatie verkrijgbaar.
- **Advies voor brandweelieden**
- **Speciale beschermende kleding:** Geen bijzondere maatregelen nodig.

6 Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

- **Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures** Niet nodig.
- **Milieuvoorzorgsmaatregelen:** Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **InsluTINGS- en reinigingsmethoden en -materiaal:** Besmet materiaal zoals afval volgens punt 13 verwijderen.
- **Verwijzing naar andere rubrieken**
Informatie inzake veilig gebruik - zie hoofdstuk 7.
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.
Informatie inzake berging - zie hoofdstuk 13.

7 Hantering en opslag

- **Handling:**
- **Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**
Tanks voorzichtig openen en behandelen.
- **Informatie m.b.t. brand- en ontploffingsgevaar:** Ademhalingstoestellen gereedhouden.
- **Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:** Geen.
- **Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

8 Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.
- **Controleparameters**
- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:** Vervalt.
- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**
Verwijderd houden van eet- en drinkwaren.
Verontreinigde kleding onmiddellijk uittrekken.
Vóór de pauze en aan het einde van werktijd handen wassen.
Beschermende kleding afzonderlijk bewaren.
- **Ademhalingsbescherming:** Niet noodzakelijk.

(Vervolg op blz. 4)

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volgens 1907/2006/EG, Artikel 31

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Handelsnaam: boorzuur

(Vervolg van blz. 3)

- **Handbescherming:**

Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.

Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliënmengsel afgegeven worden.

Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.

- **Handschoenmateriaal**

De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant.

- **Doordringingstijd van het handschoenmateriaal**

De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

- **Oogbescherming:** Niet noodzakelijk.

9 Fysische en chemische eigenschappen

- **Informatie over fysische en chemische basiseigenschappen**

- **Algemene gegevens**

- **Voorkomen:**

Vorm: Niet bepaald.

Kleur: Niet bepaald.

· **Reuk:** Karakteristiek

· **Geurdrempelwaarde:** Niet bepaald.

· **pH-waarde:** Niet bepaald.

- **Toestandsverandering**

Smeltpunt/smeltbereik: 169 °C (Zers.)

Kookpunt/kookpuntbereik: 300 °C

· **Vlampunt:** Niet bruikbaar.

· **Ontvlambaarheid (vast, gasvormig):** Niet bruikbaar.

- **Ontstekingstemperatuur:**

Ontbindingstemperatuur: Niet bepaald.

· **Zelfonsteking:** Niet bepaald.

· **Ontploffingsgevaar:** Het produkt is niet ontploffingsgevaarlijk.

- **Ontploffingsgrenzen:**

Onderste: Niet bepaald.

Bovenste: Niet bepaald.

· **Dampspanning bij 20 °C:** 0 hPa

· **Dichtheid bij 20 °C:** 1,435 g/cm³

· **Stortgewicht bij 20 °C:** 500 kg/m³

· **Relatieve dichtheid** Niet bepaald.

· **Dampdichtheid** Niet bepaald.

· **Verdampingsnelheid** Niet bruikbaar.

- **Oplosbaarheid in/mengbaarheid met**

Water bij 20 °C: 300 g/l

· **Verdelingscoëfficiënt (n-octanol/water):** Niet bepaald.

- **Viscositeit**

Dynamisch: Niet bepaald.

(Vervolg op blz. 5)

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(Vervolg van blz. 4)

- | | |
|---------------------------|---|
| Kinematisch: | Niet bepaald. |
| Overige informatie | Geen verdere relevante informatie verkrijgbaar. |

10 Stabiliteit en reactiviteit

- **Reactiviteit**
- **Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.
- **Mogelijke gevaarlijke reacties** Geen gevaarlijke reacties bekend.
- **Te vermijden omstandigheden** Geen verdere relevante informatie verkrijgbaar.
- **Chemisch op elkaar inwerkende materialen:** Geen verdere relevante informatie verkrijgbaar.
- **Gevaarlijke ontledingsproducten:** Geen gevaarlijke ontbindingsproducten bekend.

11 Toxicologische informatie

- **Informatie over toxicologische effecten**
- **Acute toxiciteit:**

- **Indelingsrelevantie LD/LC50-waarden:**

Oraal	LD50	2660 mg/kg (rat)
-------	------	------------------

- **Primaire aandoening:**
- **op de huid:** Geen prikkelend effect.
- **aan het oog:** Geen prikkelend effect.
- **Overgevoeligheid:** Geen effect van overgevoeligheid bekend.
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
Repr. 1B

12 Ecologische informatie

- **Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **Gedrag in milieu-compartimenten:**
- **Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**
Waterbezwaarlijkheid (NL) 10: Kan in het aquatisch milieu op lange termijn schadelijke effecten veroorzaken.
Gevaar voor water klasse 1 (D) (Lijstclassificatie): gevaar voor water klein
Niet onverdund of in grote hoeveelheden lozen in grondwater, in oppervlaktewater of in de riolering.
- **Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

13 Instructies voor verwijdering

- **Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terecht komen.

(Vervolg op blz. 6)

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- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.

14 Informatie met betrekking tot het vervoer

· VN-nummer	
· ADR, ADN, IMDG, IATA	Niet van toepassing
· Juiste ladingnaam overeenkomstig de modelreglementen van de VN	
· ADR, ADN, IMDG, IATA	Niet van toepassing
· Transportgevaarenklasse(n)	
· ADR, ADN, IMDG, IATA	
· klasse	Niet van toepassing
· Verpakkingsgroep:	
· ADR, IMDG, IATA	Niet van toepassing
· Milieugevaren:	
· Marine pollutant:	Neen Ja (PP)
· Bijzondere voorzorgen voor de gebruiker	Niet bruikbaar.
· Vervoer in bulk overeenkomstig bijlage II bij MARPOL 73/78 en de IBC-code	Niet bruikbaar.
· VN "Model Regulation":	-

15 Regelgeving

· Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel	
· SZW-lijst van kankerverwekkende stoffen De stof is niet aanwezig.	
· SZW-lijst van mutagene stoffen De stof is niet aanwezig.	
· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid	
10043-35-3	boorzuur 2
· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling	
10043-35-3	boorzuur 2
· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding De stof is niet aanwezig.	
· Nationale voorschriften:	
· Gevaarklasse v. water: Waterbezwaarlijkheid (NL) 10: Saneringsinspanning A	
· Aanvullende voorschriften, beperkingen en verbodsverordeningen	
· Zeer zorgwekkende stoffen (SVHC) volgens REACH, artikel 57	
10043-35-3	boorzuur
· Chemischeveiligheidsbeoordeling: Een chemische veiligheidsbeoordeling is niet uitgevoerd.	

NL

(Vervolg op blz. 7)

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16 Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van produkteigenschappen en vestigen geen contractuele rechtsbetrekking.

Afkortingen en acroniemen:

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

IATA: International Air Transport Association

PP: Severe Marine Pollutant

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NL

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 09.12.2013

Révision: 09.12.2013

1 Identification de la substance/du mélange et de la société/l'entreprise

- **Identificateur de produit**
- **Nom du produit:** acide borique
- **Code du produit:** 11460
- **No CAS:**
10043-35-3
- **Numéro CE:**
233-139-2
- **Numéro index:**
005-007-00-2
- **Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **Numéro d'appel d'urgence:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Identification des dangers

- **Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008**



GHS08 danger pour la santé

Repr. 1B H360FD Peut nuire à la fertilité. Peut nuire au fœtus.

- **Classification selon la directive 67/548/CEE ou directive 1999/45/CE**



T; Toxique

Repr. Cat. 2

R60-61: Peut altérer la fertilité. Risque pendant la grossesse d'effets néfastes pour l'enfant.

- **Indications particulières concernant les dangers pour l'homme et l'environnement:** Néant.

- **Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** La substance est classifiée et étiquetée selon le règlement CLP.
- **Pictogrammes de danger**



GHS08

- **Mention d'avertissement** Danger
- **Mentions de danger**
H360FD Peut nuire à la fertilité. Peut nuire au fœtus.

(suite page 2)

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Nom du produit: *acide borique*

(suite de la page 1)

- **Conseils de prudence**

- P281 Utiliser l'équipement de protection individuel requis.
- P201 Se procurer les instructions avant utilisation.
- P202 Ne pas manipuler avant d'avoir lu et compris toutes les précautions de sécurité.
- P308+P313 EN CAS d'exposition prouvée ou suspectée: consulter un médecin.
- P405 Garder sous clef.
- P501 Éliminer le contenu/réceptacle conformément à la réglementation locale/régionale/nationale/internationale.

- **Autres dangers**

- **Résultats des évaluations PBT et vPvB**

- **PBT:** Non applicable.
- **vPvB:** Non applicable.

3 Composition/informations sur les composants

- **Caractérisation chimique: Substances**

- **No CAS Désignation**

10043-35-3 acide borique

- **Code(s) d'identification**

· **Numéro CE:** 233-139-2

· **Numéro index:** 005-007-00-2

- **SVHC**

10043-35-3	acide borique
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4 Premiers secours

- **Description des premiers secours**

- **Après inhalation:** Donner de l'air frais, consulter un médecin en cas de troubles.

- **Après contact avec la peau:** En règle générale, le produit n'irrite pas la peau.

- **Après contact avec les yeux:**

Rincer les yeux, sous l'eau courante, pendant plusieurs minutes, en écartant bien les paupières.

- **Après ingestion:** Si les troubles persistent, consulter un médecin.

- **Indications destinées au médecin:**

- **Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.

- **Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**

Pas d'autres informations importantes disponibles.

5 Mesures de lutte contre l'incendie

- **Moyens d'extinction**

- **Moyens d'extinction:**

CO₂, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistant à l'alcool.

- **Dangers particuliers résultant de la substance ou du mélange** Pas d'autres informations importantes disponibles.

- **Conseils aux pompiers**

- **Équipement spécial de sécurité:** Aucune mesure particulière n'est requise.

6 Mesures à prendre en cas de dispersion accidentelle

- **Précautions individuelles, équipement de protection et procédures d'urgence** Pas nécessaire.

(suite page 3)

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Nom du produit: acide borique

(suite de la page 2)

- **Précautions pour la protection de l'environnement:**
Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.
- **Méthodes et matériel de confinement et de nettoyage:**
Evacuer les matériaux contaminés en tant que déchets conformément au point 13.
- **Référence à d'autres sections**
Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.
Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.
Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

7 Manipulation et stockage

- **Manipulation:**
- **Précautions à prendre pour une manipulation sans danger** Ouvrir et manipuler les récipients avec précaution.
- **Préventions des incendies et des explosions:** Tenir des appareils de protection respiratoire prêts.
- **Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:** Néant.
- **Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

8 Contrôles de l'exposition/protection individuelle

- **Indications complémentaires pour l'agencement des installations techniques:**
Sans autre indication, voir point 7.
- **Paramètres de contrôle**
- **Composants présentant des valeurs-seuil à surveiller par poste de travail:** Néant
- **Remarques supplémentaires:**
Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.
- **Contrôles de l'exposition**
- **Équipement de protection individuel:**
- **Mesures générales de protection et d'hygiène:**
Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.
Retirer immédiatement les vêtements souillés ou humectés.
Se laver les mains avant les pauses et en fin de travail.
Conserver à part les vêtements de protection.
- **Protection respiratoire:** N'est pas nécessaire.
- **Protection des mains:**
Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.
À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.
Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.
- **Matériau des gants**
Le choix de gants appropriés ne dépend pas seulement du matériau, mais également d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre.
- **Temps de pénétration du matériau des gants**
Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.

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· **Protection des yeux:** Pas nécessaire.

9 Propriétés physiques et chimiques

· **Informations sur les propriétés physiques et chimiques essentielles**· **Indications générales**· **Aspect:**· **Forme:** Non déterminé.· **Couleur:** Non déterminé.· **Odeur:** Caractéristique· **Seuil olfactif:** Non déterminé.· **valeur du pH:** Non déterminé.· **Changement d'état**· **Point de fusion:** 169 °C (Zers.)· **Point d'ébullition:** 300 °C· **Point d'éclair** Non applicable.· **Inflammabilité (solide, gazeux):** Non applicable.· **Température d'inflammation:**· **Température de décomposition:** Non déterminé.· **Auto-inflammation:** Non déterminé.· **Danger d'explosion:** Le produit n'est pas explosif.· **Limites d'explosion:**· **Inférieure:** Non déterminé.· **Supérieure:** Non déterminé.· **Pression de vapeur à 20 °C:** 0 hPa· **Densité à 20 °C:** 1,435 g/cm³· **Masse volumique à 20 °C:** 500 kg/m³· **Densité relative** Non déterminé.· **Densité de vapeur.** Non déterminé.· **Vitesse d'évaporation** Non applicable.· **Solubilité dans/miscibilité avec**· **l'eau à 20 °C:** 300 g/l· **Coefficient de partage (n-octanol/eau):** Non déterminé.· **Viscosité:**· **Dynamique:** Non déterminé.· **Cinématique:** Non déterminé.· **Autres informations** Pas d'autres informations importantes disponibles.

10 Stabilité et réactivité

· **Réactivité**· **Stabilité chimique**· **Décomposition thermique/conditions à éviter:** Pas de décomposition en cas d'usage conforme.· **Possibilité de réactions dangereuses** Aucune réaction dangereuse connue.

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- **Conditions à éviter** Pas d'autres informations importantes disponibles.
- **Matières incompatibles:** Pas d'autres informations importantes disponibles.
- **Produits de décomposition dangereux:** Pas de produits de décomposition dangereux connus

11 Informations toxicologiques

- **Informations sur les effets toxicologiques**
- **Toxicité aiguë:**

- **Valeurs LD/LC50 déterminantes pour la classification:**

Oral	LD50	2660 mg/kg (rat)
------	------	------------------

- **Effet primaire d'irritation:**
- **de la peau:** Pas d'effet d'irritation.
- **des yeux:** Pas d'effet d'irritation.
- **Sensibilisation:** Aucun effet de sensibilisation connu.
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
Repr. 1B

12 Informations écologiques

- **Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **Comportement dans les compartiments de l'environnement:**
- **Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Autres indications écologiques:**
- **Indications générales:**
Catégorie de pollution des eaux 1 (D) (classification selon liste): peu polluant
Ne pas laisser le produit, non dilué ou en grande quantité, pénétrer la nappe phréatique, les eaux ou les canalisations.
- **Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **Autres effets néfastes** Pas d'autres informations importantes disponibles.

13 Considérations relatives à l'élimination

- **Méthodes de traitement des déchets**
- **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.
- **Emballages non nettoyés:**
- **Recommandation:** Evacuation conformément aux prescriptions légales.

14 Informations relatives au transport

- **No ONU**
- **ADR, ADN, IMDG, IATA** néant

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- | | |
|---|-----------------|
| · Nom d'expédition des Nations unies | |
| · ADR, ADN, IMDG, IATA | néant |
| · Classe(s) de danger pour le transport | |
| · ADR, ADN, IMDG, IATA | |
| · Classe | néant |
| · Groupe d'emballage | |
| · ADR, IMDG, IATA | néant |
| · Dangers pour l'environnement: | |
| · Marine Pollutant: | Non
Oui (PP) |
| · Précautions particulières à prendre par l'utilisateur | Non applicable. |
| · Transport en vrac conformément à l'annexe II de la convention Marpol 73/78 et au recueil IBC | Non applicable. |
| · "Règlement type" de l'ONU: | - |

15 Informations réglementaires

- Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement
 - Prescriptions nationales:
 - Autres prescriptions, restrictions et règlements d'interdiction
- | | |
|--|---------------|
| · Substances extrêmement préoccupantes (SVHC) selon REACH, article 57 | |
| 10043-35-3 | acide borique |
- **Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

16 Autres informations

Ces indications sont fondées sur l'état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

- **Acronymes et abréviations:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
PP: Severe Marine Pollutant
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 09.12.2013

überarbeitet am: 09.12.2013

1 Bezeichnung des Stoffs bzw. des Gemischs und des Unternehmens

- **Produktidentifikator**
- **Handelsname:** Borsäure
- **Artikelnummer:** 11460
- **CAS-Nummer:**
10043-35-3
- **EG-Nummer:**
233-139-2
- **Indexnummer:**
005-007-00-2
- **Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches** Laborchemikalien
- **Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com

Science Services
Goerzer Strasse 70
81549 München Germany
Tel: +49(0)89 159802 80
safety@scienceservices.de

24h Giftnotruf Munchen: +49 (0)89 19240
Toxikologische Abteilung der II. Medizinischen Klinik
rechts der Isar, Munchen. - www.toxinfo.org
- **Auskunftgebender Bereich:** Product safety department
- **Notrufnummer:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Mögliche Gefahren

- **Einstufung des Stoffs oder Gemischs**
- **Einstufung gemäß Verordnung (EG) Nr. 1272/2008**



GHS08 Gesundheitsgefahr

Repr. 1B H360FD Kann die Fruchtbarkeit beeinträchtigen. Kann das Kind im Mutterleib schädigen.

- **Einstufung gemäß Richtlinie 67/548/EWG oder Richtlinie 1999/45/EG**



T; Giftig

Repr. Cat. 2

R60-61: Kann die Fortpflanzungsfähigkeit beeinträchtigen. Kann das Kind im Mutterleib schädigen.

- **Besondere Gefahrenhinweise für Mensch und Umwelt:** Entfällt.

(Fortsetzung auf Seite 2)

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(Fortsetzung von Seite 1)

- **Kennzeichnungselemente**
- **Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008**
Der Stoff ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.
- **Gefahrenpiktogramme**



GHS08

- **Signalwort Gefahr**
- **Gefahrenhinweise**
H360FD Kann die Fruchtbarkeit beeinträchtigen. Kann das Kind im Mutterleib schädigen.
- **Sicherheitshinweise**
 - P281 Vorgeschriebene persönliche Schutzausrüstung verwenden.
 - P201 Vor Gebrauch besondere Anweisungen einholen.
 - P202 Vor Gebrauch alle Sicherheitshinweise lesen und verstehen.
 - P308+P313 BEI Exposition oder falls betroffen: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
 - P405 Unter Verschluss aufbewahren.
 - P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.
- **Zusätzliche Angaben:**
Nur für gewerbliche Anwender.
- **Sonstige Gefahren**
- **Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.

3 Zusammensetzung/Angaben zu Bestandteilen

- **Chemische Charakterisierung: Stoffe**
- **CAS-Nr. Bezeichnung**
10043-35-3 Borsäure
- **Identifikationsnummer(n)**
- **EG-Nummer:** 233-139-2
- **Indexnummer:** 005-007-00-2

· SVHC	
10043-35-3	Borsäure

4 Erste-Hilfe-Maßnahmen

- **Beschreibung der Erste-Hilfe-Maßnahmen**
- **Nach Einatmen:** Frischluftzufuhr, bei Beschwerden Arzt aufsuchen.
- **Nach Hautkontakt:** Im allgemeinen ist das Produkt nicht hautreizend.
- **Nach Augenkontakt:** Augen bei geöffnetem Lidspalt mehrere Minuten mit fließendem Wasser spülen.
- **Nach Verschlucken:** Bei anhaltenden Beschwerden Arzt konsultieren.
- **Hinweise für den Arzt:**
- **Wichtigste akute und verzögert auftretende Symptome und Wirkungen**
Keine weiteren relevanten Informationen verfügbar.

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- **Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung** Keine weiteren relevanten Informationen verfügbar.

5 Maßnahmen zur Brandbekämpfung

- **Löschmittel**
- **Geeignete Löschmittel:**
CO₂, Löschpulver oder Wassersprühstrahl. Größeren Brand mit Wassersprühstrahl oder alkoholbeständigem Schaum bekämpfen.
- **Besondere vom Stoff oder Gemisch ausgehende Gefahren** Keine weiteren relevanten Informationen verfügbar.
- **Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Keine besonderen Maßnahmen erforderlich.

6 Maßnahmen bei unbeabsichtigter Freisetzung

- **Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**
Nicht erforderlich.
- **Umweltschutzmaßnahmen:** Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.
- **Methoden und Material für Rückhaltung und Reinigung:**
Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.
- **Verweis auf andere Abschnitte**
Informationen zur sicheren Handhabung siehe Abschnitt 7.
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.
Informationen zur Entsorgung siehe Abschnitt 13.

7 Handhabung und Lagerung

- **Handhabung:**
- **Schutzmaßnahmen zur sicheren Handhabung** Behälter mit Vorsicht öffnen und handhaben.
- **Hinweise zum Brand- und Explosionsschutz:** Atemschutzgeräte bereithalten.
- **Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:** Keine.
- **Lagerklasse:**
- **Klassifizierung nach Betriebsicherheitsverordnung (BetrSichV):** -
- **Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

8 Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.
- **Zu überwachende Parameter**

- **Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:**

10043-35-3 Borsäure

AGW	Langzeitwert: 0,5 mg/m ³ 2(I);AGS, Y, 10
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- **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.

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(Fortsetzung von Seite 3)

- **Begrenzung und Überwachung der Exposition**
- **Persönliche Schutzausrüstung:**
- **Allgemeine Schutz- und Hygienemaßnahmen:**
*Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.
 Beschmutzte, getränkte Kleidung sofort ausziehen.
 Vor den Pausen und bei Arbeitsende Hände waschen.
 Getrennte Aufbewahrung der Schutzkleidung.*
- **Atemschutz:** Nicht erforderlich.
- **Handschutz:**
*Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein.
 Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.
 Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.*
- **Handschuhmaterial**
Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich.
- **Durchdringungszeit des Handschuhmaterials**
Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.
- **Augenschutz:** Nicht erforderlich.

9 Physikalische und chemische Eigenschaften

- **Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**
- **Allgemeine Angaben**
- **Aussehen:**

Form:	Nicht bestimmt.
Farbe:	Nicht bestimmt.
- **Geruch:** Charakteristisch
- **Geruchsschwelle:** Nicht bestimmt.
- **pH-Wert:** Nicht bestimmt.
- **Zustandsänderung**

Schmelzpunkt/Schmelzbereich:	169 °C (Zers.)
Siedepunkt/Siedebereich:	300 °C
- **Flammpunkt:** Nicht anwendbar.
- **Entzündlichkeit (fest, gasförmig):** Nicht anwendbar.
- **Zündtemperatur:**
- **Zersetzungstemperatur:** Nicht bestimmt.
- **Selbstentzündlichkeit:** Nicht bestimmt.
- **Explosionsgefahr:** Das Produkt ist nicht explosionsgefährlich.
- **Explosionsgrenzen:**

Untere:	Nicht bestimmt.
Obere:	Nicht bestimmt.
- **Dampfdruck bei 20 °C:** 0 hPa
- **Dichte bei 20 °C:** 1,435 g/cm³
- **Schüttdichte bei 20 °C:** 500 kg/m³

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(Fortsetzung von Seite 4)

· Relative Dichte	Nicht bestimmt.
· Dampfdichte	Nicht bestimmt.
· Verdampfungsgeschwindigkeit	Nicht anwendbar.
· Löslichkeit in / Mischbarkeit mit Wasser bei 20 °C:	300 g/l
· Verteilungskoeffizient (n-Octanol/Wasser):	Nicht bestimmt.
· Viskosität:	
Dynamisch:	Nicht bestimmt.
Kinematisch:	Nicht bestimmt.
· Sonstige Angaben	Keine weiteren relevanten Informationen verfügbar.

10 Stabilität und Reaktivität

- **Reaktivität**
- **Chemische Stabilität**
- **Thermische Zersetzung / zu vermeidende Bedingungen:**
Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- **Möglichkeit gefährlicher Reaktionen** Keine gefährlichen Reaktionen bekannt.
- **Zu vermeidende Bedingungen** Keine weiteren relevanten Informationen verfügbar.
- **Unverträgliche Materialien:** Keine weiteren relevanten Informationen verfügbar.
- **Gefährliche Zersetzungsprodukte:** Keine gefährlichen Zersetzungsprodukte bekannt.

11 Toxikologische Angaben

- **Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität:**

· **Einstufungsrelevante LD/LC50-Werte:**

Oral	LD50	2660 mg/kg (rat)
------	------	------------------

- **Primäre Reizwirkung:**
- **an der Haut:** Keine Reizwirkung.
- **am Auge:** Keine Reizwirkung.
- **Sensibilisierung:** Keine sensibilisierende Wirkung bekannt.
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
Repr. 1B

12 Umweltbezogene Angaben

- **Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **Verhalten in Umweltkompartimenten:**
- **Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**
Wassergefährdungsklasse 1 (Listeneinstufung): schwach wassergefährdend
Nicht unverdünnt bzw. in größeren Mengen in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.

(Fortsetzung auf Seite 6)

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(Fortsetzung von Seite 5)

- **Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.
- **Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

13 Hinweise zur Entsorgung

- **Verfahren der Abfallbehandlung**
- **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.
- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

14 Angaben zum Transport

- | | |
|--|------------------|
| · UN-Nummer | |
| · ADR, ADN, IMDG, IATA | entfällt |
| · Ordnungsgemäße UN-Versandbezeichnung | |
| · ADR, ADN, IMDG, IATA | entfällt |
| · Transportgefahrenklassen | |
| · ADR, ADN, IMDG, IATA | |
| · Klasse | entfällt |
| · Verpackungsgruppe | |
| · ADR, IMDG, IATA | entfällt |
| · Umweltgefahren: | |
| · Marine pollutant: | Nein
Ja (PP) |
| · Besondere Vorsichtsmaßnahmen für den Verwender | Nicht anwendbar. |
| · Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens 73/78 und gemäß IBC-Code | Nicht anwendbar. |
| · UN "Model Regulation": | - |

15 Rechtsvorschriften

- **Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
- **Nationale Vorschriften:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** -
- **Wassergefährdungsklasse: WGK 1 (Listeneinstufung):** schwach wassergefährdend.
- **Sonstige Vorschriften, Beschränkungen und Verbotserordnungen**
- **Besonders besorgniserregende Stoffe (SVHC) gemäß REACH, Artikel 57**

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(Fortsetzung auf Seite 7)

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(Fortsetzung von Seite 6)

· Stoffsicherheitsbeurteilung: Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

16 Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

· Abkürzungen und Akronyme:

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

IATA: International Air Transport Association

PP: Severe Marine Pollutant

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

DE

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 09.12.2013

Revisione: 09.12.2013

1 Identificazione della sostanza o della miscela e della società/impresa

- **Identificatore del prodotto**
- **Denominazione commerciale:** acido bórico, naturale, con un contenuto massimo di 85 per cento di H3BO3 sul prodotto secco
- **Articolo numero:** 11460
- **Numero CAS:**
10043-35-3
- **Numeri CE:**
233-139-2
- **Numero indice:**
005-007-00-2
- **Usi pertinenti identificati della sostanza o miscela e usi sconsigliati** Non sono disponibili altre informazioni.
- **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio
- **Informazioni sul fornitore della scheda di dati di sicurezza**
- **Produttore/fornitore:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Società Italiana Chimici**
Via Rio Nell Ellba 140
00138 Rome, Italy
Tel: 39 06 8800211
Fax: 39 30 06 8815313
Web: www.sichim.com
- **Informazioni fornite da:** Product safety department
- **Numero telefonico di emergenza:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Identificazione dei pericoli

- **Classificazione della sostanza o della miscela**
- **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS08 pericolo per la salute

Repr. 1B H360FD Può nuocere alla fertilità. Può nuocere al feto.

- **Classificazione secondo la direttiva 67/548/CEE o direttiva 1999/45/CE**



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Repr. Cat. 2

R60-61: Può ridurre la fertilità. Può danneggiare i bambini non ancora nati.

- **Indicazioni di pericolosità specifiche per l'uomo e l'ambiente:** Viene meno.

- **Elementi dell'etichetta**

- **Etichettatura secondo il regolamento (CE) n. 1272/2008**

La sostanza è classificata ed etichettata conformemente al regolamento CLP.

(continua a pagina 2)

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Denominazione commerciale: acido borico, naturale, con un contenuto massimo di 85 per cento di H3BO3 sul prodotto secco

(Segue da pagina 1)

· **Pittogrammi di pericolo**



GHS08

· **Avvertenza Pericolo**

· **Indicazioni di pericolo**

H360FD Può nuocere alla fertilità. Può nuocere al feto.

· **Consigli di prudenza**

P281 Utilizzare il dispositivo di protezione individuale richiesto.

P201 Procurarsi istruzioni specifiche prima dell'uso.

P202 Non manipolare prima di avere letto e compreso tutte le avvertenze.

P308+P313 IN CASO di esposizione o di possibile esposizione, consultare un medico.

P405 Conservare sotto chiave.

P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.

· **Altri pericoli**

· **Risultati della valutazione PBT e vPvB**

· **PBT:** Non applicabile.

· **vPvB:** Non applicabile.

3 Composizione/informazioni sugli ingredienti

· **Caratteristiche chimiche: Sostanze**

· **Numero CAS**

10043-35-3 acido borico, naturale, con un contenuto massimo di 85 per cento di H3BO3 sul prodotto secco

· **Numeri di identificazione**

· **Numeri CE:** 233-139-2

· **Numero indice:** 005-007-00-2

· **SVHC**

10043-35-3 acido borico, naturale, con un contenuto massimo di 85 per cento di H3BO3 sul prodotto secco

4 Misure di primo soccorso

· **Descrizione delle misure di primo soccorso**

· **Inalazione:** Portare in zona ben areata, in caso di disturbi consultare il medico.

· **Contatto con la pelle:** Generalmente il prodotto non è irritante per la pelle.

· **Contatto con gli occhi:** Lavare con acqua corrente per alcuni minuti tenendo le palpebre ben aperte.

· **Ingestione:** Se il dolore persiste consultare il medico.

· **Indicazioni per il medico:**

· **Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.

· **Indicazione della eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**
 Non sono disponibili altre informazioni.

IT

(continua a pagina 3)

Scheda di dati di sicurezza
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(Segue da pagina 2)

5 Misure antincendio

- **Mezzi di estinzione**
- **Mezzi di estinzione idonei:**
CO2, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all'alcool.
- **Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.
- **Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** Non sono richiesti provvedimenti particolari.

6 Misure in caso di rilascio accidentale

- **Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza** Non necessario.
- **Precauzioni ambientali:** Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.
- **Metodi e materiali per il contenimento e per la bonifica:**
Smaltimento del materiale contaminato conformemente al punto 13.
- **Riferimento ad altre sezioni**
Per informazioni relative ad un manipolazione sicura, vedere capitolo 7.
Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.
Per informazioni relative allo smaltimento vedere Capitolo 13.

7 Manipolazione e immagazzinamento

- **Manipolazione:**
- **Precauzioni per la manipolazione sicura** Aprire e manipolare i recipienti con cautela.
- **Indicazioni in caso di incendio ed esplosione:** Tener pronto il respiratore.
- **Condizioni per l'immagazzinamento sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:** Nessuno.
- **Usi finali specifici** Non sono disponibili altre informazioni.

8 Controllo dell'esposizione/protezione individuale

- **Ulteriori indicazioni sulla struttura di impianti tecnici:** Nessun dato ulteriore, vedere punto 7.
- **Parametri di controllo**

· **Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:**

10043-35-3 acido bórico, naturale, con un contenuto massimo di 85 per cento di H3BO3 sul prodotto secco

TWA	Valore a breve termine: 6 mg/m ³
	Valore a lungo termine: 2 mg/m ³
	(i), A4

- **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.
- **Controlli dell'esposizione**
- **Mezzi protettivi individuali:**
- **Norme generali protettive e di igiene del lavoro:**
Tenere lontano da cibo, bevande e foraggi.
Togliere immediatamente gli abiti contaminati.

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Denominazione commerciale: acido bórico, naturale, con un contenuto massimo di 85 per cento di H₃BO₃ sul prodotto secco

(Segue da pagina 3)

Lavarsi le mani prima dell'intervallo o a lavoro terminato.

Custodire separatamente l'equipaggiamento protettivo.

· **Maschera protettiva:** Non necessario.

· **Guanti protettivi:**

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione.

A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche.

Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

· **Materiale dei guanti**

La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro.

· **Tempo di permeazione del materiale dei guanti**

Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.

· **Occhiali protettivi:** Non necessario.

9 Proprietà fisiche e chimiche

· **Informazioni sulle proprietà fisiche e chimiche fondamentali**

· **Indicazioni generali**

· **Aspetto:**

Forma: Non definito.

Colore: Non definito.

· **Odore:** Caratteristico

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

· **Cambiamento di stato**

Temperatura di fusione/ambito di fusione: 169 °C (Zers.)

Temperatura di ebollizione/ambito di ebollizione: 300 °C

· **Punto di infiammabilità:** Non applicabile.

· **Infiammabilità (solido, gassoso):** Non applicabile.

· **Temperatura di accensione:**

Temperatura di decomposizione: Non definito.

· **Autoaccensione:** Non definito.

· **Pericolo di esplosione:** Prodotto non esplosivo.

· **Limiti di infiammabilità:**

Inferiore: Non definito.

Superiore: Non definito.

· **Tensione di vapore a 20 °C:** 0 hPa

· **Densità a 20 °C:** 1,435 g/cm³

· **Densità apparente a 20 °C:** 500 kg/m³

· **Densità relativa** Non definito.

· **Densità del vapore** Non definito.

· **Velocità di evaporazione** Non applicabile.

(continua a pagina 5)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 09.12.2013

Revisione: 09.12.2013

Denominazione commerciale: acido bórico, naturale, con un contenuto massimo di 85 per cento di H₃BO₃ sul prodotto secco

(Segue da pagina 4)

- | | |
|--|--|
| · Solubilità in/Miscibilità con acqua a 20 °C: | 300 g/l |
| · Coefficiente di distribuzione (n-Octanol/acqua): | Non definito. |
| · Viscosità: | |
| Dinamica: | Non definito. |
| Cinematica: | Non definito. |
| · Altre informazioni | Non sono disponibili altre informazioni. |

10 Stabilità e reattività

- **Reattività**
- **Stabilità chimica**
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- **Possibilità di reazioni pericolose** Non sono note reazioni pericolose.
- **Condizioni da evitare** Non sono disponibili altre informazioni.
- **Materiali incompatibili:** Non sono disponibili altre informazioni.
- **Prodotti di decomposizione pericolosi:** Non sono noti prodotti di decomposizione pericolosi.

11 Informazioni tossicologiche

- **Informazioni sugli effetti tossicologici**
 - **Tossicità acuta:**
- | | | |
|---|------|------------------|
| · Valori LD/LC50 rilevanti per la classificazione: | | |
| Orale | LD50 | 2660 mg/kg (rat) |
- **Irritabilità primaria:**
 - **sulla pelle:** Non ha effetti irritanti.
 - **sugli occhi:** Non irritante.
 - **Sensibilizzazione:** Non si conoscono effetti sensibilizzanti.
 - **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
Repr. 1B

12 Informazioni ecologiche

- **Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **Comportamento in compartimenti ecologici:**
- **Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**
Pericolosità per le acque classe 1 (D) (Classif. secondo le liste): poco pericoloso
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature non diluito o in grandi quantità.
- **Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.

(continua a pagina 6)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 09.12.2013

Revisione: 09.12.2013

Denominazione commerciale: acido bórico, naturale, con un contenuto massimo di 85 per cento di H3BO3 sul prodotto secco

· **Altri effetti avversi** Non sono disponibili altre informazioni.

(Segue da pagina 5)

13 Considerazioni sullo smaltimento

- **Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.

14 Informazioni sul trasporto

· Numero ONU	
· ADR, ADN, IMDG, IATA	non applicabile
· Nome di spedizione dell'ONU	
· ADR, ADN, IMDG, IATA	non applicabile
· Classi di pericolo connesso al trasporto	
· ADR, ADN, IMDG, IATA	
· Classe	non applicabile
· Gruppo di imballaggio	
· ADR, IMDG, IATA	non applicabile
· Pericoli per l'ambiente:	
· Marine pollutant:	No Sì (PP)
· Precauzioni speciali per gli utilizzatori	Non applicabile.
· Trasporto di rinfuse secondo l'allegato II di MARPOL 73/78 ed il codice IBC	Non applicabile.
· UN "Model Regulation":	-

15 Informazioni sulla regolamentazione

- **Norme e legislazione su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**
- **Disposizioni nazionali:**
- **Ulteriori disposizioni, limitazioni e decreti proibitivi**

· **Sostanze estremamente preoccupanti (SVHC) ai sensi della regolamento REACH, articolo 57**

10043-35-3 acido bórico, naturale, con un contenuto massimo di 85 per cento di H3BO3 sul prodotto secco

· **Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.

16 Altre informazioni

I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.

(continua a pagina 7)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 09.12.2013

Revisione: 09.12.2013

Denominazione commerciale: acido bórico, naturale, con un contenuto massimo di 85 per cento di H₃BO₃ sul prodotto secco

(Segue da pagina 6)

· Abbreviazioni e acronimi:

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

IATA: International Air Transport Association

PP: Severe Marine Pollutant

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

IT

안전지침서

제31조의 1907/2006/EC에 따라

기압 점: 2013.12.09

개정: 2013.12.09

1 화학제품과 회사에 관한 정보

- 제품 식별자
- 제품명: **boric acid**
- 상품 번호: 11460
- CAS-번호
10043-35-3
- EC 의 번호:
233-139-2
- 색인 번호:
005-007-00-2
- 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도 추가적인 정보가 존재하지 않습니다.
- 제품의 권고 용도와 사용상의 제한: 실험실 화학품
- 안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
- 제조자/수입자/유통업자 정보:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- Samchang Commercial Co., Ltd.
Yeo Eui Do
PO Box 1110
Seoul, Korea
Tel: 82 2 703 3040
Fax: 82 2 717 3298
- 추가적인 정보 획득 가능: Product safety department
- 비상연락 전화번호:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 유해성.위험성

- 순물질 또는 혼합물의 분류



GHS08 건강에 위험

H360 태아 또는 생식능력에 손상을 일으킬 수 있음

- 라벨표기 요소
- GHS 라벨 요소

본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

- 그림문자



GHS08

- 신호어 위험
- 유해.위험 문구

태아 또는 생식능력에 손상을 일으킬 수 있음

(2 쪽 에 계 속)

안전지침서

제31조의 1907/2006/EC에 따라

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제품명: boric acid

(1 쪽부터 계속)

- **예방조치 문구**
적절한 개인 보호구를 착용 하시오.
사용 전 취급 설명서를 확보 하시오.
모든 안전 예방조치 문구를 읽고 이해하기 전에는 취급 하지 마시오.
노출되거나 노출이 우려되면 의학적인 조치·조언을 구 하시오.
잠금장치가 있는 저장장소에 저장 하시오.
현지/지역/국가/국제 규정에 따라서 내용물/용기 노출
- **기타 유해성**
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.

3 구성성분의 명칭 및 함유량

- **화학적 특성:** 화학물질
- **CAS-번호 표시**
10043-35-3 boric acid
- **식별 번호**
- **EC 의 번호:** 233-139-2
- **색인 번호:** 005-007-00-2

4 응급조치 요령

- **응급조치요령 내용**
- **흡입했을 때:** 신선한 공기를 쐬고, 통증이 있을 때는 의료진의 도움을 구한다.
- **피부에 접촉했을 때:** 일반적으로 이 제품은 피부에 자극적이지 않다.
- **눈에 들어갔을 때:** 흐르는 물에 눈을 몇분동안 씻어낸다.
- **먹었을 때:** 증상이 지속될 경우에는 의사와 상담한다.
- **기타 의사의 주의사항:**
- **가장 중요한 급·만성 증상 및 영향** 추가적인 정보가 존재하지 않습니다.
- **즉각적인 의료처치 및 특별치료가 필요함을 시사하는 징후** 추가적인 정보가 존재하지 않습니다.

5 폭발·화재시 대처방법

- **소화제**
- **적절한 소화제:**
이산화탄소, 진화용 석회 가루 또는 물 방사를 사용하고, 더 큰 화재는 물을 분사 하거나 알코올 이 함유된 거품으로 끈다.
- **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.
- **소방관에 대한 권고사항**
- **화재 진압 시 착용할 보호구 및 예방조치:** 특별한 조치가 필요없음.

6 누출 사고 시 대처방법

- **개인적 예방조치, 보호장비 및 응급처치 절차** 필요없음.
- **환경 관련 예방조치:** 하수도 망/해수면 위 의물/지하수로도 달 하지 않게 한다.
- **밀폐 및 정화 방법과 소재:** 항목 13에 따라 오염된 물질을 쓰레기로 처분한다.
- **타 섹션 참조**
안전관리에 대한 정보는 제7 장 을 참고 하시오.
개인 보호 장비에 대한 정보는 제8 장 을 참고 하시오.

(3 쪽에 계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압 점: 2013.12.09

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제품명: boric acid

쓰레기 처리에 대한 정보는 제13 장을 참고하십시오.

(2 쪽부터 계속)

7 취급 및 저장방법

- 취급:
 - 안전 취급을 위한 예방조치 조심히 취급을 개봉하거나 취급한다.
 - 화재 및 폭발 사고 예방대책에 관한 정보: 호흡보호장비를 항상 비치한다.
- 혼합위험성 등 안전 저장 조건
- 보관:
 - 안전한 저장 방법: 특별한 요구사항이 없음.
 - 하나의 공동 보관 시설에 대한 보관 관련 정보: 필요없음
 - 보관 조건에 관한 추가적인 정보: 없음
 - 구체적인 최종 사용자 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

- 첨단시설 디자인에 대한 추가정보: 더 이상 의 자료는 없음. 항목 7 을 참고하십시오.

· 통제 변수

- 화학물질의 노출기준, 생물학적 노출기준 등:

10043-35-3 boric acid

TLV (USA)	단 기간의 값: 6* mg/m ³
	장 기간의 값: 2* mg/m ³ *as inhalable fraction

- 추가정보: 제조할 당시에 유효한 목록을 기초로 사용했다.

· 노출 통제

· 개인 보호구

· 일반적보호조치 및 위생조치:

- 식료품, 음료수와 사료로부터 멀리 떨어져 두어 놓는다.
- 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
- 휴식 전이나 작업이 끝날때마다 손을 씻는다.
- 방호복은 따로 보관한다.

· 호흡기 보호: 필요없음.

· 손 보호:

- 장갑재질은 제품 / 원료 / 조제를 투과시키지 않아야 하고, 내구성이 있어야 한다.
- 테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.
- 투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

· 장갑의 재료

- 적합한 장갑의 선정은 재질 차이뿐만 아니라 품질 기준의 차이도 고려하여 이루어져야 하고 제조업자에 따라서도 다르게 선정되어야 한다.

· 장갑재료의 투과시간

- 정확한 관통 시간은 보호장갑 제조자에 의하여 인지되고, 준수되어야 한다.

· 눈 보호: 필요없음.

KR

(4 쪽에 계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압 점: 2013.12.09

개정: 2013.12.09

제품명: boric acid

(3 쪽 부터 계속)

9 물리화학적 특성

· 기본 물리 및 화학적 특성에 대한 정보	
· 일반 정보	
· 외형	
· 물리적 상태:	알 맞 지 않 다.
· 색:	알 맞 지 않 다.
· 냄새:	특 색 있 는
· 후각역치	알 맞 지 않 다.
· pH:	알 맞 지 않 다.
· 상 태 변 화	
· 녹는점/어는점:	169 °C (Zers.)
· 초기 끓는점과 끓는점 범위:	300 °C
· 인화점:	해당사항 없음.
· 인화성(고체, 기체):	해당사항 없음.
· 점 화 온 도:	
· 분해 온도:	알 맞 지 않 다.
· 자기점화:	알 맞 지 않 다.
· 폭발 위험:	이 제 품 은 폭 발 위 험 성 이 없 다
· 인화 또는 폭발 범위의 상한/하한	
· 아 래 로:	알 맞 지 않 다.
· 위 로:	알 맞 지 않 다.
· 증기압 의 경 우 20 °C:	0 hPa
· 밀도 의 경 우 20 °C:	1.435 g/cm ³
· 용 적 밀도 의 경 우 20 °C:	500 kg/m ³
· 비중:	알 맞 지 않 다.
· 증기밀도:	알 맞 지 않 다.
· 증발 속도:	해당사항 없음.
· 용해도:	
· 물 의 경 우 20 °C:	300 g/l
· n 옥탄올/물 분배계수:	알 맞 지 않 다.
· 점도:	
· 역학성:	알 맞 지 않 다.
· 동점성:	알 맞 지 않 다.
· 기타 정보	추 가 적 인 정 보 가 존 재 하 지 않 습 니 다.

10 안정성 및 반응성

- 반응성
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규 정 에 따 라 사 용 할 경 우 해 체 는 없 다
- 유해반응 가능성 위험 한 반 응 으 로 는 알 려 지 지 않 았 다.
- 피해야 할 조건 추 가 적 인 정 보 가 존 재 하 지 않 습 니 다.
- 혼합 금지 물질: 추 가 적 인 정 보 가 존 재 하 지 않 습 니 다.

(5 쪽 에 계 속)

안전지침서

제31조의 1907/2006/EC에 따라

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제품명: boric acid

· **유해분해물질:** 위험성있는 분해물들은 알려지지 않았다.

(4 쪽부터 계속)

11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성:

· LD/LC50-수치에 따른 분류:

구강의	LD50	2660 mg/kg (rat)
-----	------	------------------

- 입차적 자극 효과:
- 피부 부식성 또는 자극성: 무 자극
- 심한 눈 손상 또는 자극성: 무 자극.
- 감각 화: 민감한 영향이 없는 것으로 알려져 있다.
- 다음 종류의 잠재적인 효과에 대한 정보
- CMR-효과 (암 유발, 돌연변이성 그리고 생식 특성)
- 생식 독성 구분1

12 환경에 미치는 영향

- 독성
- 수생독성: 추가적인 정보가 존재하지 않습니다.
- 지속성 및 분해성 추가적인 정보가 존재하지 않습니다.
- 환경 시스템에서의 행동:
- 생물농축 잠재성 추가적인 정보가 존재하지 않습니다.
- 토양내 이동성 추가적인 정보가 존재하지 않습니다.
- 추가적인 생태학 정보:
- 일반 특징:
 - 수질오염등급 1 (목록분류): 약하게 수질오염이 된
 - 희석시키지 않은 채 대량으로 지하수나, 하천으로 그리고 하수도망에도 달하지 않게 한다.
- PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과
- PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.
- vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.
- 기타 부작용 추가적인 정보가 존재하지 않습니다.

13 폐기시 주의사항

- 폐기물 처리 방법
- 권고: 생활쓰레기와 함께 처리되어서는 안 된다. 하수도망으로 유입되어서는 안 된다.
- 비위생적 포장:
- 권고: 당국의 지침에 입각한 쓰레기 처리.

14 운송에 필요한 정보

- | | |
|------------------------|------|
| · 유엔 번호 | |
| · ADR, ADN, IMDG, IATA | 누락되다 |
| · UN 적정 선적명 | |
| · ADR, ADN, IMDG, IATA | 누락되다 |

(6 쪽에 계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압 점: 2013.12.09

개정: 2013.12.09

제품명: boric acid

(5 쪽부터 계속)

· 교통 위험 클래스	
· ADR, ADN, IMDG, IATA	
· 등급	누락되다
· 용기등급	
· ADR, IMDG, IATA	누락되다
· 환경적 유해물질:	
· 해양오염물질:	아니오 네 (PP)
· 이용자 특별 예방조치	해당사항 없음.
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송	해당사항 없음.
· UN "모범 규제":	-

15 법적 규제현황

· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률

· Korean Existing Chemical Inventory		
10043-35-3	boric acid	KE-03499

· GHS 라벨 요소

본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· 위험도표



GHS08

· 표지어 위험

· 위험 문구

태아 또는 생식능력에 손상을 일으킬 수 있음

· 주의 문구

적절한 개인 보호구를 착용하십시오.

사용 전 취급 설명서를 확보하십시오.

모든 안전 예방조치 문구를 읽고 이해하기 전에는 취급하지 마시오.

노출되거나 노출이 우려되면 의학적인 조치·조언을 구하십시오.

잠금장치가 있는 저장장소에 저장하십시오.

현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

· 화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않음

16 그 밖의 참고사항

이 보고는 우리 지식에 대한 오늘날의 상태에 대하여 평가하고 있다, 하지만 이 보고서는 생산 특성에 관한 보증은 기술하지 않으며 계약적인 법률 관계에 기반을 두고 있지 않다

· 최초 작성일자: 2013.12.09

· 개정 횟수 및 최종 개정일자: 1 / 2013.12.09

(7 쪽에 계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압 점: 2013.12.09

개정: 2013.12.09

제품명: boric acid

(6 쪽부터 계속)

· 약어와 두문자어:

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

IATA: International Air Transport Association

PP: Severe Marine Pollutant

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

KR

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

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Revisión: 09.12.2013

1 Identificación de la sustancia o la mezcla y de la sociedad o la empresa

- **Identificador del producto**
- **Nombre comercial:** ácido bórico
- **Número del artículo:** 11460
- **Número CAS:**
10043-35-3
- **Número CE:**
233-139-2
- **Número de clasificación:**
005-007-00-2
- **Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**
No existen más datos relevantes disponibles.
- **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio
- **Datos del proveedor de la ficha de datos de seguridad**
- **Fabricante/distribuidor:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Aname**
C/ Perez Galdos no. 2
28693 Quijorna
Madrid, Spain
Tel: +34.91.816.89.50
Fax: +34.91.816.85.94
email: ventas@aname.es
- **Área de información:** Product safety department
- **Teléfono de emergencia:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Identificación de los peligros

- **Clasificación de la sustancia o de la mezcla**
- **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS08 peligro para la salud

Repr. 1B H360FD Puede perjudicar a la fertilidad. Puede dañar al feto.

- **Clasificación con arreglo a la Directiva 67/548/CEE o Directiva 1999/45/CE**



T; Tóxico

Repr. Cat. 2

R60-61: Puede perjudicar la fertilidad. Riesgo durante el embarazo de efectos adversos para el feto.

- **Indicaciones adicionales sobre los riesgos para personas y el medio ambiente:** Nulo

- **Elementos de la etiqueta**

- **Etiquetado con arreglo al Reglamento (CE) n° 1272/2008**

La sustancia se ha clasificado y etiquetado de conformidad con el reglamento CLP.

(se continua en página 2)

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Nombre comercial: ácido bórico

(se continua en página 1)

· Pictogramas de peligro



GHS08

· Palabra de advertencia Peligro

· Indicaciones de peligro

H360FD Puede perjudicar a la fertilidad. Puede dañar al feto.

· Consejos de prudencia

P281 Utilizar el equipo de protección individual obligatorio.

P201 Pedir instrucciones especiales antes del uso.

P202 No manipular la sustancia antes de haber leído y comprendido todas las instrucciones de seguridad.

P308+P313 EN CASO DE exposición manifiesta o presunta: Consultar a un médico.

P405 Guardar bajo llave.

P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

· Otros peligros

· Resultados de la valoración PBT y mPmB

· **PBT:** No aplicable.

· **mPmB:** No aplicable.

3 Composición/información sobre los componentes

· Caracterización química: Sustancias

· Denominación N° CAS

10043-35-3 ácido bórico

· Número(s) de identificación

· Número CE: 233-139-2

· Número de clasificación: 005-007-00-2

· SVHC

10043-35-3 ácido bórico

4 Primeros auxilios

· Descripción de los primeros auxilios

· **En caso de inhalación del producto:** Suministrar aire fresco. En caso de trastornos, consultar al médico.

· **En caso de contacto con la piel:** Por regla general, el producto no irrita la piel.

· **En caso de con los ojos:** Limpiar los ojos abiertos durante varios minutos con agua corriente.

· **En caso de ingestión:** Consultar un médico si los trastornos persisten.

· Indicaciones para el médico:

· **Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.

· **Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente**
No existen más datos relevantes disponibles.

ES

(se continua en página 3)

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Nombre comercial: ácido bórico

(se continua en página 2)

5 Medidas de lucha contra incendios

- **Medios de extinción**
- **Sustancias extintoras apropiadas:**
CO₂, polvo extintor o chorro de agua rociada. Combatir incendios mayores con chorro de agua rociada o espuma resistente al alcohol.
- **Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.
- **Recomendaciones para el personal de lucha contra incendios**
- **Equipo especial de protección:** No se requieren medidas especiales.

6 Medidas en caso de vertido accidental

- **Precauciones personales, equipo de protección y procedimientos de emergencia** No es necesario.
- **Precauciones relativas al medio ambiente:**
Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **Métodos y material de contención y de limpieza:** Desechar el material contaminado como vertido según item 13.
- **Referencia a otras secciones**
Ver capítulo 7 para mayor información sobre una manipulación segura.
Ver capítulo 8 para mayor información sobre el equipo personal de protección.
Para mayor información sobre cómo desechar el producto, ver capítulo 13.

7 Manipulación y almacenamiento

- **Manipulación:**
- **Precauciones para una manipulación segura** Abrir y manejar el recipiente con cuidado.
- **Prevención de incendios y explosiones:** Tener preparados los aparatos respiratorios.
- **Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:** Ningunos, -as.
- **Usos específicos finales** No existen más datos relevantes disponibles.

8 Controles de exposición/protección individual

- **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**
Sin datos adicionales, ver punto 7.

- **Parámetros de control**

- **Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:**

10043-35-3 ácido bórico	
LEP	Valor de larga duración: 6 mg/m ³ , 2 ppm
	TR1B, s

- **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.

- **Controles de la exposición**
- **Equipo de protección individual:**
- **Medidas generales de protección e higiene:**
Mantener alejado de alimentos, bebidas y alimentos para animales.
Quitarse de inmediato la ropa ensuciada o impregnada.
Lavarse las manos antes de las pausas y al final del trabajo.

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(se continua en página 3)

- Guardar la ropa protectora por separado.
- **Protección respiratoria:** No es necesario.
 - **Protección de manos:**
El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.
Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.
Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.
 - **Material de los guantes**
La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro.
 - **Tiempo de penetración del material de los guantes**
El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.
 - **Protección de ojos:** No es necesario.

9 Propiedades físicas y químicas

- **Información sobre propiedades físicas y químicas básicas**
- **Datos generales**
- **Aspecto:**
 - Forma: No determinado.
 - Color: No determinado.
- **Olor:** Característico
- **Umbral olfativo:** No determinado.
- **valor pH:** No determinado.
- **Cambio de estado**
 - Punto de fusión /campo de fusión: 169 °C (Zers.)
 - Punto de ebullición /campo de ebullición: 300 °C
- **Punto de inflamación:** No aplicable.
- **Inflamabilidad (sólido, gaseiforme):** No aplicable.
- **Temperatura de ignición:**
 - Temperatura de descomposición: No determinado.
- **Autoinflamabilidad:** No determinado.
- **Peligro de explosión:** El producto no es explosivo.
- **Límites de explosión:**
 - Inferior: No determinado.
 - Superior: No determinado.
- **Presión de vapor a 20 °C:** 0 hPa
- **Densidad a 20 °C:** 1,435 g/cm³
- **Densidad a granel a 20 °C:** 500 kg/m³
- **Densidad relativa** No determinado.
- **Densidad de vapor** No determinado.
- **Velocidad de evaporación** No aplicable.
- **Solubilidad en / miscibilidad con agua a 20 °C:** 300 g/l

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Nombre comercial: ácido bórico

(se continua en página 4)

- **Coefficiente de reparto (n-octanol/agua):** No determinado.
- **Viscosidad:**
 - **Dinámica:** No determinado.
 - **Cinemática:** No determinado.
- **Información adicional** No existen más datos relevantes disponibles.

10 Estabilidad y reactividad

- **Reactividad**
- **Estabilidad química**
- **Descomposición térmica / condiciones que deben evitarse:** No se descompone al emplearse adecuadamente.
- **Posibilidad de reacciones peligrosas** No se conocen reacciones peligrosas.
- **Condiciones que deben evitarse** No existen más datos relevantes disponibles.
- **Materiales incompatibles:** No existen más datos relevantes disponibles.
- **Productos de descomposición peligrosos:** No se conocen productos de descomposición peligrosos.

11 Información toxicológica

- **Información sobre los efectos toxicológicos**
- **Toxicidad aguda:**

· **Valores LD/LC50 (dosis letal /dosis letal = 50%) relevantes para la clasificación:**

Oral	LD50	2660 mg/kg (rat)
------	------	------------------

- **Efecto estimulante primario:**
- **en la piel:** No produce irritaciones.
- **en el ojo:** No produce irritaciones.
- **Sensibilización:** No se conoce ningún efecto sensibilizante.
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
Repr. 1B

12 Información ecológica

- **Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **Comportamiento en sistemas ecológicos:**
- **Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**
Nivel de riesgo para el agua 1 (clasificación de listas): escasamente peligroso para el agua
En estado no diluido o no neutralizado, no dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.
- **Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **Otros efectos adversos** No existen más datos relevantes disponibles.

ES

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13 Consideraciones relativas a la eliminación

- **Métodos para el tratamiento de residuos**
- **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.

14 Información relativa al transporte

· Número UN	
· ADR, ADN, IMDG, IATA	suprimido
· Designación oficial de transporte de las Naciones Unidas	
· ADR, ADN, IMDG, IATA	suprimido
· Clase(s) de peligro para el transporte	
· ADR, ADN, IMDG, IATA	
· Clase	suprimido
· Grupo de embalaje	
· ADR, IMDG, IATA	suprimido
· Peligros para el medio ambiente:	
· Contaminante marino:	No Sí (PP)
· Precauciones particulares para los usuarios	No aplicable.
· Transporte a granel con arreglo al anexo II del Convenio Marpol 73/78 y del Código IBC	No aplicable.
· "Reglamentación Modelo" de la UNECE:	-

15 Información reglamentaria

- **Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
 - **Disposiciones nacionales:**
 - **Demás disposiciones, limitaciones y decretos prohibitivos**
 - **Sustancias altamente preocupantes (SVHC) según REACH, artículo 57**
- | | |
|------------|--------------|
| 10043-35-3 | ácido bórico |
|------------|--------------|
- **Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

16 Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

- **Abreviaturas y acrónimos:**

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

IATA: International Air Transport Association

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PP: Severe Marine Pollutant

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

ES