

**Boric acid**

31146-1KG

Version 1.5

Revision Date 19.04.2021

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product name : Boric acid  
SDS-number : 000000020832  
Type of product : Substance  
Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.  
Chemical name : boric acid  
Index-No. : 005-007-00-2  
REACH Registration Number : no data available

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Use of the Substance/Mixture : Chemical-technical application  
Laboratory chemicals  
Uses advised against : none

**1.3. Details of the supplier of the safety data sheet**

Company	: Honeywell International Inc. 115 Tabor Road 07950-2546 Morris Plains USA	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
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Telephone :  
For further information, please contact: : [SafetyDataSheet@Honeywell.com](mailto:SafetyDataSheet@Honeywell.com)

**1.4. Emergency telephone number**

Emergency telephone number : +1-703-527-3887 (ChemTrec-Transport)  
+1-303-389-1414 (Medical)  
Country based Poison Control Center : see chapter 15.1

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### SECTION 2: Hazards identification


#### 2.1. Classification of the substance or mixture

##### REGULATION (EC) No 1272/2008

Reproductive toxicity Category 1B  
H360FD May damage fertility. May damage the unborn child.

#### 2.2. Label elements

##### REGULATION (EC) No 1272/2008

Hazard pictograms : 

Signal word : Danger

Hazard statements : H360FD May damage fertility. May damage the unborn child.

Precautionary statements : P201 Obtain special instructions before use.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Special labelling of certain products : Restricted to professional users.

#### 2.3. Other hazards

This product may cause adverse reproductive effects.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks

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boric acid	10043-35-3 005-007-00-2 233-139-2	Repr. 1B; H360FD	100 %	Repr. 1B; H360FD;>= 5,5 %
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**3.2. Mixture**

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.  
For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

*General advice:*

First aider needs to protect himself. Move out of dangerous area. Immediately take off contaminated clothing and rinse body with plenty of water.

*Inhalation:*

When inhaled remove to fresh air and seek medical aid.

*Skin contact:*

After contact with skin, wash immediately with plenty of water.

*Eye contact:*

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

*Ingestion:*

A person suspected to have swallowed the substance who is conscious should be given water to drink. Take to a doctor immediately together with this card

**4.2. Most important symptoms and effects, both acute and delayed**

No data available

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms.

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**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

*Suitable extinguishing media:*

Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder

*Extinguishing media which shall not be used for safety reasons:*

High volume water jet

**5.2. Special hazards arising from the substance or mixture**

The product itself does not burn.

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective suit.

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**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protective equipment. Unprotected persons must be kept away. Avoid dust formation. Provide adequate ventilation.

**6.2. Environmental precautions**

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

**6.3. Methods and materials for containment and cleaning up**

Use mechanical handling equipment.  
Pick for disposal in tightly closed containers

**6.4. Reference to other sections**

For personal protection see section 8.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

*Advice on safe handling:*

Avoid formation of aerosol. Avoid exposure - obtain special instructions before use. Refill and handle product only in closed system.

*Advice on protection against fire and explosion:*

Normal measures for preventive fire protection.

*Hygiene measures:*

Separate rooms are required for washing, showering and changing clothes. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and at the end of workday.

#### 7.2. Conditions for safe storage, including any incompatibilities

*Further information on storage conditions:*

Store in original container. Do not leave vessels/containers open. Avoid product residues in/on containers. Keep locked up or in an area accessible only to qualified or authorised persons.

#### 7.3. Specific end use(s)

no additional data available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

##### DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
boric acid	Workers / Long-term systemic effects		8,3 mg/m <sup>3</sup>	Inhalation	
boric acid	Workers / Long-term		392mg/kg bw/d	Dermal	

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	systemic effects				
boric acid	Consumers / Acute systemic effects		0,98mg/kg bw/d	Oral	
boric acid	Consumers / Long-term systemic effects		196mg/kg bw/d	Dermal	
boric acid	Consumers / Long-term systemic effects		4,15mg/kg bw/d	Inhalation	
boric acid	Consumers / Long-term systemic effects		0,98mg/kg bw/d	Oral	

Component	Environmental compartment / Value	Remarks
boric acid	Fresh water: 2,9 mg/l	
boric acid	Marine water: 2,9 mg/l	
boric acid	Sewage treatment plant: 10 mg/l	
boric acid	Soil: 5,7 mg/kg dw	

**8.2. Exposure controls**

**Occupational exposure controls**

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.  
Do not breathe dust.

**Personal protective equipment**

*Respiratory protection:*

In the case of dust or aerosol formation use respirator with an approved filter.

*Hand protection:*

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Glove material: Natural Latex

Break through time: > 480 min

Glove thickness: 0,6 mm

Lapren®706

Gloves must be inspected prior to use.

Replace when worn.

Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions ( e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer's directions for use should be observed because of great diversity of types .

Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

### *Eye protection:*

Safety goggles

### *Skin and body protection:*

Complete suit protecting against chemicals

## **Environmental exposure controls**

Handle in accordance with local environmental regulations and good industrial practices.

## **SECTION 9: Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

Physical state	:	solid
Colour	:	colourless
Odour	:	odourless
molecular weight	:	61,83 g/mol
Melting point/range	:	171 °C
Flammability	:	The product is not flammable.
Upper explosion limit	:	Not applicable

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Lower explosion limit	:	Not applicable
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
pH	:	3,6 - 4,0 at 20 °C
Viscosity, kinematic	:	No data available
Water solubility	:	49,5 g/l at 20 °C
Partition coefficient: n-octanol/water	:	log Pow -0,757 at: 25 °C
Vapour pressure	:	No data available
Density	:	ca. 1,510 g/cm <sup>3</sup> at 20 °C
Bulk density	:	ca. 980 kg/m <sup>3</sup>
Relative vapour density	:	No data available

### 9.2 Other Information

Evaporation rate	:	No data available
Viscosity, dynamic	:	No data available

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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No hazards to be specially mentioned.

### 10.2. Chemical stability



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Hazardous decomposition products formed under fire conditions.

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Protect from heat/overheating.

### 10.5. Incompatible materials

Bases

### 10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

*Acute oral toxicity:*

LD50

Species: Rat

Value: 2.660 mg/kg

*Acute dermal toxicity:*

LD50

Species: Rabbit

Value: > 2.000 mg/kg

No deaths

*Acute inhalation toxicity:*

Species: Rat

Value: > 2,21 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

No deaths

*Skin irritation:*

Species: Rabbit

Result: slight irritation

*Eye irritation:*

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Species: Rabbit  
Result: slight irritation

*Respiratory or skin sensitisation:*

Species: Guinea pig  
Classification: non-sensitizing  
Method: OECD Test Guideline 406

*Repeated dose toxicity:*

Note: No data available

*Carcinogenicity:*

Species: not specified

Note: Not classified due to data which are conclusive although insufficient for classification.

*Germ cell mutagenicity:*

Note: Not classified due to data which are conclusive although insufficient for classification.

*Reproductive toxicity:*

Species: not specified

Remarks: Classification based on Annex VI of regulation 1272/2008/EC.

*Aspiration hazard:*

No data available

### 11.2. Information on other hazards

Endocrine disrupting properties

No data available

*Other information:*

The reproduction-toxicological studies carried out shows signs of damage for the development.

May impair fertility.

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## SECTION 12: Ecological information

### 12.1. Toxicity

*Toxicity to fish:*

Not classified due to data which are conclusive although insufficient for classification.

*Toxicity to aquatic plants:*

Not classified due to data which are conclusive although insufficient for classification.

*Toxicity to aquatic invertebrates:*

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Not classified due to data which are conclusive although insufficient for classification.

### 12.2. Persistence and degradability

*Biodegradability:*

The methods for determining biodegradability are not applicable to inorganic substances.

### 12.3. Bioaccumulative potential

No data available

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

No data available

### 12.6. Endocrine disrupting properties

No data available

### 12.7. Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

*Product:*

Dispose according to legal requirements.

*Packaging:*

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

*Further information:*

Provisions relating to waste:  
EC Directive 2006/12/EC; 2008/98/EEC  
Regulation No. 1013/2006

For personal protection see section 8.

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## SECTION 14: Transport information

### 14.1 UN number

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ADR/RID:Not dangerous goods    IMDG:Not dangerous goods    IATA:Not dangerous goods

**14.2 UN proper shipping name**

ADR/RID:Not dangerous goods

IMDG:Not dangerous goods

IATA:Not dangerous goods

**14.3 Transport hazard class(es)**

**14.4 Packaging group**

**14.5 Environmental hazards**

ADR/RID:no

Marine pollutant: no

**14.6 Special precautions for user**

No data available

**14.7 Maritime transport in bulk according to IMO instruments**

No data available

**SECTION 15: Regulatory information**

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

Basis	Value	Remarks
Regulation (EC) No. 1907/2006, Annex XVII		This product does contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of $\geq 0.1$ % (w/w).
Regulation (EC) No. 1907/2006, Annex XVII		This product contains an ingredient according to Annex XVII of the REACH Regulation1907/2006/EC.

**Poison Control Center**

Country	Phone Number
Austria	+4314064343
Belgium	070 245245

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052

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Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777
Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
Munich : 089/19240	
Latvia	+37167042473

Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	808250250
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051
Spain	+34915620420
Sweden	112 (begär Giftinformation);+46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

**Other inventory information**

US. Toxic Substances Control Act  
On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act  
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)  
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List

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On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)

On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)

On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)

On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

On the inventory, or in compliance with the inventory

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

### Text of H-statements referred to under heading 3

boric acid : H360FD May damage fertility. May damage the unborn child.

### Further information

All directives and regulations refer to amended versions.

Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

EC European Community

CAS Chemical Abstracts Service

DNEL Derived no effect level

PNEC Predicted no effect level

vPvB Very persistent and very bioaccumulative substance

PBT Persistent, bioaccumulative und toxic substance

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not

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to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.

This information should not constitute a guarantee for any specific product properties.

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