

## Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 12.03.2008

Revision: 12.03.2008

### \* 1 Identification of substance:

- **Product details:** Reagent for water analysis
- **Product name:** Cyanuric acid
- **Catalog number:** 00511329(BT), (4)511320(BT), (4)511321(BT), 511323(0)
- **Supplier:**  
Tintometer GmbH  
Schleefstr. 8-12  
DE-44287 Dortmund  
Made in Germany
- **Informing department:**  
produktsicherheit@tintometer.de  
Product Safety Department
- **Emergency information:**  
Poison Center Berlin, Germany  
phone: +49(0)30 19240

phone: +49 (0) 231 945100  
E-Mail: sales@tintometer.de



### 2 Hazards identification

- **Hazard designation:** void
- **Information pertaining to particular dangers for man and environment**  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" (1999/45/EC) in the latest valid version.
- **Classification system**  
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.
- **GHS label elements** void

### \* 3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Preparation contains anorganic and organic compounds.

· **Dangerous components:**

|                   |             |   |       |
|-------------------|-------------|---|-------|
| CAS: 77-92-9      | citric acid |  Xi; R 36        | 5-10% |
| EINECS: 201-069-1 |             | Warning:  3.3/2A |       |

- **Additional information** For the wording of the listed risk phrases refer to section 16.

### \* 4 First aid measures

- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact** Instantly rinse with water.
- **After eye contact**  
Rinse opened eye for several minutes (at least 10 min) under running water.  
Seek medical treatment.
- **After swallowing**  
Drink copious amounts of water, induce vomiting.  
In case of persistent symptoms consult doctor.

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- **The following symptoms may occur:**
  - after swallowing:
  - sickness
  - vomiting
  - diarrhoea
  - After swallowing of large amounts:
  - fatigue
  - cramps
  - ataxia (impaired locomotor coordination)
  - drop in temperature
- 

### 5 Fire fighting measures

- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
  - **Protective equipment:** Wear self-contained breathing apparatus.
  - **Additional information**
  - Ambient fire may liberate hazardous vapours.
  - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
  - Collect contaminated fire fighting water separately. It must not enter drains.
- 

### \* 6 Accidental release measures

- **Person-related safety precautions:**
  - Wear protective equipment. Keep unprotected persons away.
  - Avoid causing dust.
  - **Measures for environmental protection:** Do not allow product to reach sewage system or water bodies.
  - **Measures for cleaning/collecting:**
  - Collect mechanically.
  - Ensure adequate ventilation.
  - Dispose of contaminated material as waste according to item 13.
  - **Additional information:** No dangerous materials are released.
- 

### \* 7 Handling and storage

- **Handling**
  - **Information for safe handling:** No special measures required.
  - **Information about protection against explosions and fires:** The product is not flammable
  - **Storage**
  - **Requirements to be met by storerooms and containers:** Store in cool location.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:**
  - Protect from heat and direct sunlight.
  - Store under dry conditions.
  - Protect from humidity and keep away from water.
  - Protect from the effects of light.
  - **Recommended storage temperature:** 20°C +/- 3°C
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### \* 8 Exposure controls and personal protection

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

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- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional information:** The lists that were valid during the compilation were used as basis.
  - **Personal protective equipment**
  - **General protective and hygienic measures**  
The usual precautionary measures should be adhered to general rules for handling chemicals.
  - **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
  - **Recommended filter device for short term use:** Filter P2
  - **Protection of hands:** Preventive skin protection by use of skin-protecting agents is recommended.
  - **Material of gloves**  
nitrile rubber, NBR  
Recommended thickness of the material:  $\geq 0.11$  mm
  - **Penetration time of glove material**  
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.  
Value for the permeation: Level  $\geq 6$  (480 min)
  - **Eye protection:** Safety glasses
  - **Body protection:** Protective work clothing.
- 

### \* 9 Physical and chemical properties:

|  |                           |
|--|---------------------------|
| · <b>Form:</b>                                   | Tablets                   |
| · <b>Colour:</b>                                 | White                     |
| · <b>Odour:</b>                                  | Odourless                 |
| · <b>Melting point/Melting range:</b>            | Not determined            |
| · <b>Boiling point/Boiling range:</b>            | 300°C                     |
| · <b>Flash point:</b>                            | Not applicable            |
| · <b>Danger of explosion:</b>                    | Product is not explosive. |
| · <b>Density at 20°C</b>                         | 1.38 g/cm <sup>3</sup>    |
| · <b>Solubility in / Miscibility with Water:</b> | Soluble                   |
| · <b>pH-value (10 g/l) at 20°C:</b>              | 6                         |
| · <b>Solvent content:</b>                        |                           |
| <b>Organic solvents:</b>                         | 0.0 %                     |
| · <b>Solids content:</b>                         | 100.0 %                   |

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### \* 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** strong heating
  - **Dangerous reactions**  
Reacts with certain metals  
Aqueous solution reacts acidic.
  - **Dangerous products of decomposition:** see chapter 5
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### \* 11 Toxicological information

- **Acute toxicity:** Quantitative data on the toxicity of the preparation are not available.

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|   |      |                    |
|---|------|--------------------|
| <b>· LD/LC50 values that are relevant for classification:</b>   |      |                    |
| <b>10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight</b> |      |                    |
| Oral  | LD50 | 2660 mg/kg (rat)   |
| Dermal  | LD50 | > 2000 mg/kg (rat) |

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

**· on the eye:** Irritant effect.

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

**· Subacute to chronic toxicity:**

CAS-No. 10043-35-3:

MERCK: Sensitization test (guinea pig): negative (OECD 406)

**· Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The usual precautionary measures should be adhered to general rules for handling chemicals.

**· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Boric acid:

Bacterial mutagenicity: Ames test - negative (IUCLID)

Mutagenicity (mammal cell test): chromosome aberration negative (NTP)

evaluation for carcinogenicity: negative in animals (NTP)

## \*12 Ecological information:

**· Information about elimination (persistence and degradability):**
**· Other information:**

Quantitative data on the ecological effect of this product are not available.

CAS: 77-92-9 Citric acid: 98% / 2 d

**· Behaviour in environmental systems:**

|   |                 |
|---|-----------------|
| <b>10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight</b> |                 |
| log P(o/w)  | 0.76 (25°C) (.) |

**· Ecotoxicological effects:**
**· Aquatic toxicity:**

|   |                              |
|---|------------------------------|
| <b>10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight</b> |                              |
| EC50  | 133 mg/l/48h (Daphnia magna) |

**· General notes:**

Water hazard class 1 (German Regulation) (Self-assessment acc. VwVwS Annex 4): slightly hazardous for water.

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

Must not reach sewage water or drainage ditch undiluted or unneutralized.

## 13 Disposal considerations

**· Product:**
**· Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

**· European waste catalogue**

|          |  |
|----------|--|
| 16 05 09 | discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08 |
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- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.
  - **Recommended cleaning agent:** Water, if necessary with cleaning agent.
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### 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID-GGVS/E Class:** -

- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **UN "Model Regulation":** -
  - **Transport/Additional information:** Not dangerous according to the above specifications.
- 

### \* 15 Regulatory information

- **Designation according to EC guidelines:**  
The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EC" as issued in the last version.
  - **Special designation of certain preparations:**  
Safety data sheet available for professional user on request.
  - **National regulations**
  - **Information about limitation of use:** Not required.
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### \* 16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant R-phrases**  
36 Irritating to eyes.
- **Abbreviations and acronyms:**  
EC50: effective concentration, 50 percent (in vivo)  
ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement internationale concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent
- **Sources**  
IUCLID (International Uniform Chemical Information Database)  
ECOTOX Database  
International Chemical Safety Cards (ICSCs)
- **\* Data compared to the previous version altered.**