

# Material Safety Data Sheet

## According to 91/155 EEC

Printing date 27.03.2007

Reviewed on 27.03.2007

### \* 1 Identification of substance:



- **Product details:** Reagent for water analysis
- **Product name:** Nitrite LR
- **Catalog number:** 00512319, (4)512310, (4)512311, 5123130
- **Supplier:**  
Tintometer GmbH  
Schleefstraße 8-12  
D - 44287 Dortmund  
Made in Germany
- **Informing department:** Department Laboratory
- **Emergency information:**  
Poison Center Berlin, Germany  
phone: +49(0)30 19240

phone: +49(0)231 94510-0  
e-mail: sales@tintometer.de

### \* 2 Composition/Data on components:

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

#### · Dangerous components:

CAS: 7681-38-1 EINECS: 231-665-7 EC Number: 016-046-00-X	sodium hydrogensulphate	 Xi; R 41	10-20%
CAS: 121-57-3 EINECS: 204-482-5 EC Number: 612-014-00-X	sulphanilic acid	 Xi; R 36/38-43	2.5-5%

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

### \* 3 Hazards identification

- **Hazard designation:**



Xi Irritant

- **Information pertaining to particular dangers for man and environment**

The product has 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.

R 41 Risk of serious damage to eyes.

R 43 May cause sensitisation by skin contact.

- **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.

### \* 4 First aid measures

- **General information** Instantly remove any clothing soiled by the product.

(Contd. on page 2)

— GB —

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## According to 91/155 EEC

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**Product name: Nitrite LR**


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(Contd. of page 1)

- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
  - **After skin contact**  
Instantly wash with water and soap and rinse thoroughly.  
Seek medical treatment.
  - **After eye contact**  
Rinse opened eye for several minutes (at least 10 min) under running water.  
Call a doctor immediately.
  - **After swallowing**  
Seek medical treatment.  
Rinse out mouth and then drink plenty of water.
  - **The following symptoms may occur:**  
after inhalation:  
coughing  
mucous membrane irritation  
breathing difficulty  
after swallowing:  
sickness  
vomiting  
gastric or intestinal trouble  
After swallowing of large amounts:  
fatigue  
ataxia (impaired locomotor coordination)  
drop in temperature  
cramps
  - **Danger** risk of skin sensitization
- 

### \* 5 Fire fighting measures

- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
  - **Special hazards caused by the material, its products of combustion or resulting gases:**  
Formation of toxic gases is possible during heating or in case of fire.  
nitrogen oxides (NO<sub>x</sub>)  
Sulphur oxides (SO<sub>x</sub>)  
Sodium oxide
  - **Protective equipment:**  
Wear self-contained breathing apparatus.  
Wear full protective suit.
  - **Additional information**  
Ambient fire may liberate hazardous vapours.  
Collect contaminated fire fighting water separately. It must not enter drains.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
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### \* 6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
  - **Measures for environmental protection:** Do not allow product to reach sewage system or water bodies.
  - **Measures for cleaning/collecting:**  
Dispose of contaminated material as waste according to item 13.  
Collect mechanically.  
Ensure adequate ventilation.
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### \* 7 Handling and storage

- **Handling**
- **Information for safe handling:** Prevent formation of dust.

(Contd. on page 3)

# Material Safety Data Sheet

## According to 91/155 EEC

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**Product name: Nitrite LR**


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(Contd. of page 2)

- **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.
    - This product is hygroscopic.
    - Protect from the effects of light.
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### \* 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
  - **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**
    - Take off immediately all contaminated clothing
    - Wash hands during breaks and at the end of the work.
    - Avoid contact with the eyes.
    - Do not eat, drink or smoke while working.
  - **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 through 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:** Tightly sealed safety glasses.
  - **Body protection:** Protective work clothing.
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### 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</b>	Not determined
· <b>Solubility in / Miscibility with Water:</b>	Soluble
· <b>pH-value (10.3 g/l) at 20°C:</b>	2.0
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %

(Contd. on page 4)

# Material Safety Data Sheet

## According to 91/155 EEC

Printing date 27.03.2007

Reviewed on 27.03.2007

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**Product name: Nitrite LR**


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(Contd. of page 3)

<b>· Solids content:</b>	100.0 %
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### \*10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
  - **Materials to be avoided:**
    - alkalis
    - metals
    - alcohols
    - oxidizing agents
  - **Dangerous reactions**
    - Reacts with alcohols
    - Forms hydrogen in aqueous solution with metals
    - Liberates acid in contact with water or alcohol.
  - **Dangerous products of decomposition:**
    - Sulphur oxides (SO<sub>x</sub>)
    - see chapter 5
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### \*11 Toxicological information

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

<b>· LD/LC50 values that are relevant for classification:</b>		
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<b>10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H<sub>3</sub>BO<sub>3</sub> calculated on the dry weight</b>		
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Oral	LD50	2660 mg/kg (rat)
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Dermal	LD50	> 2000 mg/kg (rat)
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<b>7681-38-1 sodium hydrogensulphate</b>		
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Oral	LD50	2490 mg/kg (rat)
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<b>121-57-3 sulphanilic acid</b>		
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Oral	LD50	12300 mg/kg (rat)
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- **Primary irritant effect:**
    - **on the skin:** Irritant to skin and mucous membranes.
    - **on the eye:** Strong irritant with the danger of severe eye injury.
  - **Sensitization:** Sensitization possible by skin contact.
  - **Subacute to chronic toxicity:**
    - CAS-No. 121-57-3:
    - MERCK: Sensitization test (guinea pig): positiv (OECD 406)
    - CAS-No. 10043-35-3:
    - MERCK: Sensitization test (guinea pig): negative (OECD 406)
  - **Additional toxicological information:**
    - The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
    - Irritant
- 

### \*12 Ecological information:

- **Information about elimination (persistence and degradability):**
- **Other information:**
  - Quantitative data on the ecological effect of this product are not available.
  - The following statements refer to the individual components.
  - CAS-No. 121-57-3: 31% / 28 d

(Contd. on page 5)

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Reviewed on 27.03.2007

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(Contd. of page 4)

<b>· Behaviour in environmental systems:</b>	
<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) (.)
<b>121-57-3 sulphanilic acid</b>	
log P(o/w)	-2.16 (.)

**· Ecotoxicological effects:**

<b>· Aquatic toxicity:</b>	
<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)
LC50	5600 mg/l/96h (Gambusia affinis)
<b>7681-38-1 sodium hydrogensulphate</b>	
EC50	190 mg/l/48h (Daphnia magna)
<b>121-57-3 sulphanilic acid</b>	
EC50	85.7 mg/l/48h (Daphnia magna)
LC50	100.4 mg/l/96h (Pimephales promelas)

**· Remark:**

Toxic for fish:  
sulphates > 7 g/l  
Forms corrosive mixtures with water even if diluted.

<b>· Algae toxicity:</b>	
<b>121-57-3 sulphanilic acid</b>	
IC50	91 mg/l/72h (Desmodesmus subspicatus)

**· Bacterial toxicity:** sulphates toxic > 2.5 g/l**· General notes:**

Water hazard class 2 (German Regulation) (Self-assessment acc. VwVwS Annex 4): hazardous for water.  
Do not allow product to reach ground water, water bodies or sewage system.

### \* 13 Disposal considerations

**· Product:****· Recommendation** Hand over to disposers of hazardous waste.

<b>· European waste catalogue</b>	
16 05 06	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals

**· Uncleaned packagings:****· Recommendation:** Disposal must be made according to official regulations.**· Recommended cleaning agent:** Water, if necessary with cleaning agent.

### \* 14 Transport information

<b>· Land transport ADR/RID (cross-border)</b>	
<b>· ADR/RID-GGVS/E Class:</b> -	
<b>· Maritime transport IMDG:</b>	
<b>· IMDG Class:</b>	-
<b>· Marine pollutant:</b>	No
<b>· Air transport ICAO-TI and IATA-DGR:</b>	
<b>· ICAO/IATA Class:</b>	-

(Contd. on page 6)

— GB —

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**Product name: Nitrite LR**

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(Contd. of page 5)

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· **Transport/Additional information:** Not dangerous according to the above specifications.

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### \*15 Regulatory information

· **Designation according to EC guidelines:**

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

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

Xi Irritant

· **Hazard-determining components of labelling:**

sulphanilic acid

· **Risk phrases:**

41 Risk of serious damage to eyes.

43 May cause sensitisation by skin contact.

· **Safety phrases:**

24 Avoid contact with skin.

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

37/39 Wear suitable gloves and eye/face protection.

60 This material and its container must be disposed of as hazardous waste.

· **National regulations**

· **Information about limitation of use:**

Employment restrictions concerning young persons must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

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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**

36/38 Irritating to eyes and skin.

41 Risk of serious damage to eyes.

43 May cause sensitisation by skin contact.

· **Department issuing data specification sheet:** Technical Department

· **\* Data compared to the previous version altered.**

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