



Material Safety Data Sheet

According to 91/155 EEC

Printing date 22.03.2005

Reviewed on 21.03.2005

* 1 Identification of substance:



- **Product details:** Reagent for water analysis
- **Product name:** Ammonia No.1
- **Catalog number:** 00512589, (4)512580, (4)512581, 512583
- **Supplier:**
Tintometer GmbH
Schleefstraße 8a-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

* 2 Composition/Data on components:

- **Description:** Mixture of the substances listed below with harmless additions.

Dangerous components:

CAS: 69-72-7 EINECS: 200-712-3	salicylic acid	 Xn; R 22-41	25-30%
CAS: 13755-38-9 EINECS: 238-373-9	sodium nitroprusside dihydrate	 T; R 25	2.5-5%

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

* 3 Hazards identification

Hazard designation:

Xn Harmful

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" in the latest valid version.

R 22 Harmful if swallowed.

R 41 Risk of serious damage to eyes.

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.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

(Contd. on page 2)

GB

Material Safety Data Sheet

According to 91/155 EEC

Printing date 22.03.2005

Reviewed on 21.03.2005

Product name: Ammonia No.1

(Contd. of page 1)

- **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 under running water.
Call a doctor immediately.
 - **After swallowing**
Drink copious amounts of water and provide fresh air. Instantly call for doctor.
Induce vomiting.
 - **The following symptoms may occur:**
after inhalation:
coughing
mucous membrane irritation
breathing difficulty
after swallowing:
absorption
sickness
vomiting
cramps
Dizziness
Disorientation
 - **Danger** Danger of system failure.
-

* 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.
Hydrogen chloride (HCl)
nitrous gases
 - **Protective equipment:** Wear self-contained breathing apparatus.
 - **Additional information**
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:**
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
Collect mechanically.
-

* 7 Handling and storage

- **Handling**
 - **Information for safe handling:**
Keep containers tightly sealed.
Prevent formation of dust.
 - **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.
-

(Contd. on page 3)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 22.03.2005

Reviewed on 21.03.2005

Product name: Ammonia No.1

(Contd. of page 2)

- **Information about storage in one common storage facility:**

- Do not store together with acids.
- Store away from oxidizing agents.

- **Further information about storage conditions:**

- Store under dry conditions.
- Protect from humidity and keep away from water.
- Protect from the effects of light.

- **Storage class** Not required.

* 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**

- Keep away from foodstuffs, beverages and food.
- Take off immediately all contaminated clothing
- Wash hands during breaks and at the end of the work.
- Avoid contact with the eyes.

- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.

- **Recommended filter device for short term use:** Filter P2

- **Protection of hands:**

- Only use chemical-protective gloves with CE-labelling of category III.
- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- After use of gloves apply skin-cleaning agents and skin cosmetics.

- **Material of gloves**

- nitrile rubber, NBR

- Recommended thickness of the material: ≥ 0.11 mm

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

- **Penetration time of glove material**

- Value for the permeation: Level ≥ 6 (480 min)

- The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Tightly sealed safety glasses.

- **Body protection:** Protective work clothing.

* 9 Physical and chemical properties:

· Form:	Tablets
· Colour:	Pigmented
· Odour:	Odourless
· Melting point/Melting range:	Not determined
· Boiling point/Boiling range:	211°C
· Flash point:	> 100°C
· Self-inflammability:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive.
· Density at 20°C	1.823 g/cm ³

(Contd. on page 4)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 22.03.2005

Reviewed on 21.03.2005

Product name: Ammonia No.1

(Contd. of page 3)

· Solubility in / Miscibility with Water:	Soluble
· pH-value (11.9 g/l) at 20°C:	2.5
· Solvent content:	
Organic solvents:	0.0 %
· Solids content:	100.0 %

* 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Materials to be avoided:**
 - oxidizing agents
 - acids
 - > forms heat
- **Dangerous reactions** Contact with acids releases toxic gases
- **Dangerous products of decomposition:**
 - Hydrogen cyanide (prussic acid)
 - see chapter 5

* 11 Toxicological information

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

· LD/LC50 values that are relevant for classification:		
7447-40-7 potassium chloride		
Oral	LD50	2600 mg/kg (rat)
69-72-7 salicylic acid		
Oral	LD50	1250-1580 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)
13755-38-9 sodium nitroprusside dihydrate		
Oral	LD50	99 mg/kg (rat)
	LDLo	20 mg/kg (rat)
10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight		
Oral	LD50	2660 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)

- **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:** No sensitizing effect known.
- **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:
 - Harmful
 - Irritant
 - The following complies to cyanogen compounds / nitriles in general:
 - Utmost caution! Release of hydrocyanic acid is possible - blockade of cellular respiration.
 - The following applies to soluble iron compounds: nausea and vomiting after swallowing. The absorption of large quantities is followed by cardiovascular disorders. Toxic effect on liver and kidneys.

— GB —
(Contd. on page 5)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 22.03.2005

Reviewed on 21.03.2005

Product name: Ammonia No.1

(Contd. of page 4)

* 12 Ecological information:

- **Information about elimination (persistence and degradability):**
- **Other information:** Quantitative data on the ecological effect of this product are not available.

· Behaviour in environmental systems:	
10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight	
log P(o/w)	0.76 (25°C) (.)
· Ecotoxicological effects:	
· Aquatic toxicity:	
7447-40-7 potassium chloride	
EC50	825 mg/l/48h (Daphnia magna)
LC50	920 mg/l/96h (Gambusia affinis)
69-72-7 salicylic acid	
Daphnia EC50	230 mg/l/24h (Daphnia magna)
LC50	90 mg/l/48h (Leuciscus idus)
13755-38-9 sodium nitroprusside dihydrate	
Daphnia EC50	1.0 mg/l/24h (Daphnia magna)
LC50	0.08 mg/l (fish)
10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight	
EC50	133 mg/l/48h (Daphnia magna)

- **Remark:**
Toxic for fish:
CAS 13755-38-9 (Fe): > 0,9 mg/l / pH 6,5-7,5
MERCK: the following applies to dissolved iron compounds in general:
fish: toxic as from 0.9 mg/l at pH 6.5 - 7.5
lethal as from 1 mg/l at pH 5.5 - 6.7
- **Additional ecological information:**

· BSB5-value:	
69-72-7 salicylic acid	
BSB5	0.95 g/g (-)

- **General notes:**
Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.
Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into soil.

* 13 Disposal considerations

- **Product:**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Hand over to disposers of hazardous waste.

· European waste catalogue	
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.

— GB —
(Contd. on page 6)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 22.03.2005

Reviewed on 21.03.2005

Product name: Ammonia No.1

(Contd. of page 5)

* 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: -

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

* 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:**
Xn Harmful
 - **Hazard-determining components of labelling:**
sodium nitroprusside dihydrate
salicylic acid
 - **Risk phrases:**
22 Harmful if swallowed.
41 Risk of serious damage to eyes.
 - **Safety phrases:**
22 Do not breathe dust.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/39 Wear suitable protective clothing and eye/face protection.
60 This material and its container must be disposed of as hazardous waste.
-

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**
22 Harmful if swallowed.
25 Toxic if swallowed.
41 Risk of serious damage to eyes.
 - **Department issuing data specification sheet:** Technical Department
 - *** Data compared to the previous version altered.**
-