

**WTW Safety Data Sheet**  
According to EC Directives 91/155/EEC

**1. Identification of the substance/preparation and of the company/undertaking**

*Product name:*

**Ammonium Standard Solution 10 g/l NH<sub>4</sub><sup>+</sup>**

**Ord. No.: 120 240**

**Model: ES/NH<sub>4</sub>**

*Manufacturer:*

WTW Wissenschaftlich-Technische Werkstätten GmbH, Dr.-Karl-Slevogt-Straße 1, D-82362 Weilheim, Germany, Tel.: +49(0)881 183-0, Fax.: +49(0)881 183-420

Emergency telephone:  
(001)-703-527-3887

**2. Composition/information on ingredients**

*Chemical characterization:* Aqueous saline solution

*Hazardous ingredients:* Ammonium chloride

*Hazard symbols:* Harmful (Xn)

*R-phrases:* 22-36

*Content:* 3,8 %

*CAS-No.* 12125-02-9

*EINECS-No.:* 235-186-4

**3. Hazards identification**

No hazardous product.

**4. First aid measures**

*After inhalation:* Fresh air

*After skin contact:* Wash off with plenty of water.  
Remove contaminated clothing.

*After eye contact:* Rinse out with plenty of water with the eyelid held wide open.

*After ingestion:* Make injured person drink plenty of water.  
Induce vomiting. Summon doctor.

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#### 5. Fire-fighting measures

<i>Suitable extinguishing media:</i>	To suit environment.
<i>Unsuitable extinguishing media:</i>	No information available.
<i>Special risks:</i>	Development of hazardous vapours possible in the event of fire. The following may develop in the event of fire: $\text{NH}_3$ , HCl, chlorine. Use chemical protection clothing and selfcontained breathing apparatus in the dangerous zone.
<i>Other information:</i>	Non combustible

#### 6. Accidental release measures

<i>Personal-related precautionary measures:</i>	Avoid generation of dusts.
<i>Environmental-protection measures:</i>	Do not allow to enter sewerage system.
<i>Procedures for cleaning/absorption:</i>	Take up with liquid-absorbent material. Forward for disposal. Clean up effected area with water.

#### 7. Handling and storage

<i>Handling:</i>	No further requirements
<i>Storage:</i>	Tightly closed.

#### 8. Exposure control/personal protection

<i>Specific control parameters:</i>	None
Personal protective equipment	
<i>Respiratory protection:</i>	Only required when dusts are generated.
<i>Eye protection:</i>	Protective glasses
<i>Hand protection:</i>	Gloves (nitrile rubber)
<i>Industrial hygiene:</i>	Wash hands after working with solution.

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### 9. Physical and chemical properties

<i>Form:</i> Liquid	<i>Colour:</i> Colourless	<i>Odour:</i> Odourless
<i>pH-value</i>	3,1 at 20°C	
<i>Melting temperature:</i>	°C	
<i>Boiling temperature:</i>	about 100°C	
<i>Ignition temperature:</i>	°C	
<i>Flash point:</i>	°C	
<i>Explosion limite lower:</i>	/	
<i>                                  upper:</i>	/	
<i>Density:</i>	/	
<i>Solubility in water:</i>	miscible	
<i>Thermal decomposition:</i>	/	

### 10. Stability and reactivity

<i>Conditions to be avoided:</i>	Do not alkalize the standard solution.
<i>Substances to be avoided:</i>	Alkali hydroxides, chlorates, nitrates, nitrides.
<i>Hazardous decomposition products:</i>	Ammonia, hydrochloric acid.
<i>Further information:</i>	None

### 11. Toxicological information

<i>Acute toxicity:</i>	LD50 (oral, rat): 1650 mg/kg (Ammonium chloride)
<i>Further toxicological information:</i>	After skin contact: slight irritation symptoms. After eye contact: irritant effect. After ingestion: mucosal irritations. After ingestion of large amounts: headache, nausea, unconsciousness.

### 12. Ecological information

<i>Ecotoxic effects:</i>	Ammonium ions cause biological effects: fish: toxic as from 0,3 mg/l. No ecological problems are to be expected when the product is handled and used with due care and attention.
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## 13. Disposal considerations

*Products:* There are no uniform regulations for the disposal of chemicals or residues. The disposal is regulated through corresponding regional laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

*Packaging:* Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, noncontaminated packaging may be treated like household waste or recycled.

## 14. Transport information

Not subject to transport regulations.

## 15. Regulatory information

Labelling according to EC directives

*Symbol:* No hazardous product

*R-phrases:* /

*S-phrases:* /

German regulations

*Water pollution class;* WGK: 1 Slightly polluting substance

*Storage class VCI:* 12

*Regulation on combustible liquids;* VbF: Non combustible

*Other regulations:* None

## 16. Other information

Date of issue: 15.07.2006

Supersedes edition of 12.02.2004

Reason for alteration: General update

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.