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

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

Product name:

Reagent P 211

Ord. No.: **821 091**
Model: **R/P 211**

Manufacturer:

WTW Wissenschaftlich-Technische Werkstätten GmbH, Dr.-Karl-Slevogt-Straße 1, D-82362 Weilheim, Germany, Tel.: (0881) 183-0, Fax.: (0881) 62539

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

2. Composition/information on ingredients

Chemical characterization: Aqueous acidified saline solution

Hazardous ingredients: Hydrochloric acid and ammoniummonovanadate

Hydrochloric acid		Ammoniummonovanadate	
Hazard symbols:	Corrosive (C)	*Hazard symbols:*	Toxic (T)
R-phrases:	34-37	*R-phrases:*	25-36/37/38
Content:	12 %	*Content:*	< 1 %
CAS-No.:	7647-01-0	*CAS-No.*	7803-55-6*:*
EC-Index-No.:	017-002-01-X	*EINECS- and EG-No.:*	232-261-3*:*

3. Hazards identification

Irritating to eyes, respiratory system and skin.

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. Immediately summon eye specialist.
After ingestion:	Give plenty of water to drink. (if necessary several litres) Immediately summon doctor.

5. Fire-fighting measures

Suitable extinguishing media:	Water, foam, powder, carbon dioxide
Unsuitable extinguishing media:	No information available.
Special risks:	Development of hazardous vapours possible in the event of fire: Hydrogen chloride, chlorine Use chemical protection clothing and selfcontained breathing apparatus in dangerous zone. Hydrogen may form upon contact with metals (danger of explosion).
Other information:	Non combustible

6. Accitental release measures

Personal-related precautionary measures:	Avoid contact with eyes and skin. Do not inhale vapours.
Environmental-protection measures:	Do not allow to enter sewerage system.
Procedures for cleaning/absorption:	Take up with liquid-absorbent material. Forward for disposal. Clean up affected area with water.

7. Handling and storage

Handling:	No further reqirements.
Storage:	Store tightly closed in a well ventilated place. Do not use metal containers

8. Exposure control/personal protection

Specific control parameters:	MAK-value (Germany): 5 ml/m^3 or 7 mg/m^3 for hydrogen chloride Class. pregnancy: C
Personal protective equipment	
Respiratory protection:	Required when dusts are generated.
Eye protection:	Protective glasses
Hand protection:	Gloves
Industrial hygiene:	Wash hands and face after working with solution.

9. Physical and chemical properties

Form: Liquid *Colour*: Yellow/green *Odour*: Pungent

pH-value	< 1 at 20°C strong acid
Melting temperature:	°C
Boiling temperature:	about 100°C
Ignition temperature:	°C
Flash point:	°C
Explosion limite lower:	/
upper:	/
Density:	1,06 g/cm^3
Solubility in water:	miscible
Thermal decomposition:	/

10. Stability and reactivity

Conditions to be avoided:	Strong heating
Substances to be avoided:	Metals, carbides, strong alkaline reagents Hydrogen may form upon contact with metals (danger of explosion).
Hazardous decomposition products:	Chlorine, hydrochloric acid
Further information:	None

11. Toxicological information

Acute toxicity:	LD50 (oral, rat): 160 mg/kg for ammoniummetavanadate An embryotoxic effect need not be feared when the threshold limit value is observed.
Further toxicological information:	Hydrochloric acid may cause burns, and vanadium and its compounds dyspnoea, change in blood picture, loss of weight, cardiovascular complaints.

12. Ecological information

Ecotoxic effects:	Ammonium ions are toxic for fishes (0,3 mg/l). Hydrochloric acid is toxic for fishes (25 mg/l). Injurious effects due to pH-change.

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, nonconta-minated packaging may be treated like household waste or recycled.

14. Transport information

ADR/GGVSE:	UN 1789 Chlorwasserstoffsäure, 8 II
IMDG/GGVSee:	UN 1789 Hydrochloric acid, 8 II
	EmS-No.: F-A, S-B
ICAO/IATA:	UN 1789 Hydrochloric acid, 8 II
Further information:	None

15. Regulatory information

Labelling according to EC directives

Symbol:	Irritant (Xi)
R-phrases: 36/37/38	Irritating to eyes, respiratory system and skin.
S-phrases: 26-36/37/39-45	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye face protection. In case of accident or if you feel unwell, seek medical advice immediately. (Show the label where possible)

German regulations

Water pollution class;	WGK: 1 Slightly polluting solution
Regulation on combustible liquids;	VbF: Non combustible
Other regulations:	None

16. Other information

Date of issue:	18.2.2004
Supersedes edition of	4.12.2002
Reason for alteration	Change in transport classification

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.