

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

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

Product name:

Cleaning Solution A 111

Ord. No.: 821 160

Mode: C/A111

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 solution

Hazardous ingredients: Citric acid

Hazard symbols: Irritant (Xi)

R-phrases: 36

Content: 10 %

CAS-No.: 77-92-9

EINECS-No.: 201-069-1

3. Hazards identification

Irritating to eyes

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.
(if necessary several litres) Immediately summon doctor.

WTW Safety Data Sheet

Identification of the substance/preparation

Cleaning Solution A 111

5. Fire-fighting measures

<i>Suitable extinguishing media:</i>	Water, carbondioxide,foam and powder
<i>Unsuitable extinguishing media:</i>	No information available.
<i>Special risks:</i>	Development of hazardous gases or vapours possible in the event of fire. Use chemical protection clothing and selfcontained breathing apparatus.
<i>Other information:</i>	Pure citric acid is combustible.

6. Accidental release measures

<i>Personal-related precautionary measures:</i>	Wear suitable clothing and gloves. Avoid contact with skin.
<i>Environmental-protection measures:</i>	None, readily biodegradable
<i>Procedures for cleaning/absorption:</i>	Neutralize with diluted sodium hydroxide solution. Take up with liquid-absorbent material. Forward for disposal. Clean up affected area with water.

7. Handling and storage

<i>Handling:</i>	Only with eye protection
<i>Storage:</i>	Tightly closed at room temperature No metal containers

8. Exposure control/personal protection

<i>Specific control parameters:</i>	MAK-Value: none (German regulation)
Personal protective equipment	
<i>Respiratory protection:</i>	Required when vapours are generated.
<i>Eye protection:</i>	Protective glasses
<i>Hand protection:</i>	Gloves (nitrile rubber)
<i>Industrial hygiene:</i>	Wash hands and face after working with solution.

WTW Safety Data Sheet

Identification of the substance/preparation

Cleaning Solution A 111

9. Physical and chemical properties

<i>Form:</i> liquid	<i>Colour:</i> colourless	<i>Odour:</i> odourless
<i>pH-value</i>	about 1,7 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>	Strong heating
<i>Substances to be avoided:</i>	Strong alkali and hydroxides, oxidizing agents, reducing agents, metals Incompatible with metals. Development of hydrogen possible. Risk of explosion.
<i>Hazardous decomposition products:</i>	Not known to date
<i>Further information:</i>	None

11. Toxicological information

<i>Acute toxicity:</i>	Very low acute toxicity in animal experiments LD 50 (oral): 3760 mg/kg for citric acid
<i>Further toxicological information:</i>	<i>After skin contact:</i> Slight irritations <i>After eye contact:</i> Irritations <i>After swallowing of large amounts:</i> Irritations of mucous membranes (stomach), Coughing, pain and bloody vomiting

12. Ecological information

<i>Ecotoxic effects:</i>	No ecological problems are to be expected when the product is handled and used with due care and attention. Biodegradable in water.
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Cleaning Solution A 111

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: 8 B

Regulation on combustible liquids: VbF: /

Other regulations: None

16. Other information

Date of issue: 15.07.2006

Supersedes edition of 18.02.2004

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.