

## Material Safety Data Sheet According to 91/155 EEC

Printing date 24.10.2005

Reviewed on 24.10.2005

### \* 1 Identification of substance:

- **Product details:** Reagent for water analysis
- **Product name:** Silica HR Acid RGT F10, 25 ml
- **Catalogue number:** CW/53.17.00, CW/53.17.03, CW/53.19.30, CW/53.19.33
- **Supplier:**  
Camlab Limited  
Camlab House, Norman Way, Over, Cambridge CB4 5WE  
United Kingdom  
Tel: +44 (0)1954 233100
- **Informing department:** Technical Support
- **Emergency information:**  
National Poisons Information Service, United kingdom  
Tel: 0870 600 6266 (24 hours) • <http://www.npis.org/>

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

- **Description:** Mixture of anorganic compounds

- **Dangerous components:**

CAS: 7681-38-1	sodium hydrogensulphate	<input checked="" type="checkbox"/>	Xi; R 41	90-100%
EINECS: 231-665-7				
EC Number: 016-046-00-X				

- **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" in the latest valid version.

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.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water.  
Call a doctor immediately.

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**Product name: Silica HR Acid RGT F10, 25 ml**

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**· After swallowing**

Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; instantly call for medical help.

**· The following symptoms may occur:**

after swallowing:

irritation  
diarrhoea

after inhalation:

coughing  
mucous membrane irritation  
breathing difficulty

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**\* 5 Fire fighting measures****· Suitable extinguishing agents**

CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

**· 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.

Sulphur oxides (SO<sub>x</sub>)

**· Protective equipment:**

Wear full protective suit.

Wear self-contained breathing apparatus.

**· Additional information**

Ambient fire may liberate hazardous vapours.

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.

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**\* 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.

Collect mechanically.

Ensure adequate ventilation.

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**\* 7 Handling and storage****· Handling****· Information for safe handling:** Thorough dedusting.**· 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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 · **Storage class** Not required.
 

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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.
- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Filter P2
- **Protection of hands:**  
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  
Recommended thickness of the material:  $\geq 0.11$  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**  
The exact break trough 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.

### 9 Physical and chemical properties:

· <b>Form:</b>	Powder
· <b>Colour:</b>	White
· <b>Odour:</b>	Odourless
· <b>Melting point/Melting range:</b>	Not determined
· <b>Boiling point/Boiling range:</b>	Not determined
· <b>Flash point:</b>	Not applicable
· <b>Danger of explosion:</b>	Product is not explosive.
· <b>Density at 20°C</b>	$\sim 2.9$ g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with Water:</b>	Soluble
· <b>pH-value (20.5 g/l) at 20°C:</b>	1.3
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
· <b>Solids content:</b>	100.0 %

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**Product name: Silica HR Acid RGT F10, 25 ml**


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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:** see chapter 5
- 

### \* 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>		
<b>7681-38-1 sodium hydrogensulphate</b>		
Oral	LD50	2490 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:  
Irritant

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### \* 12 Ecological information:

- **Information about elimination (persistence and degradability):**
- **Other information:**
  - Methods for the determination of biodegradability are not applicable to inorganic substances.
  - Quantitative data on the ecological effect of this product are not available.
  - Does not cause biological oxygen deficit.
- **Ecotoxic effects:**

· <b>Aquatic toxicity:</b>		
<b>7681-38-1 sodium hydrogensulphate</b>		
EC50	190 mg/l/48h	(Daphnia magna)

- **Remark:**

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

- **Bacterial toxicity:** sulphates toxic > 2.5 g/l

- **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment acc. VwVwS Annex 4): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.  
Must not reach sewage water or drainage ditch undiluted or unneutralized.  
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

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**Product name: Silica HR Acid RGT F10, 25 ml**

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### 13 Disposal considerations

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

- **European waste catalogue**

16 05 07	discarded inorganic chemicals consisting of or containing dangerous substances
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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID-GGVS/E Class:** 8 (C2) Corrosive substances.
- **Kemler Number:** 80
- **UN-Number:** 3260
- **Packaging group:** III
- **Label** 8
- **Designation of goods:** 3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (sodium hydrogensulphate)

- **Maritime transport IMDG:**



- **IMDG Class:** 8
- **UN Number:** 3260
- **Label** 8
- **Packaging group:** III
- **EMS Number:** F-A,S-B
- **Marine pollutant:** No
- **Correct technical name:** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (sodium hydrogensulphate)

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 8
- **UN/ID Number:** 3260
- **Label** 8
- **Packaging group:** III
- **Correct technical name:** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (sodium hydrogensulphate)

### \*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

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**Product name: Silica HR Acid RGT F10, 25 ml**

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· **Risk phrases:**

41 Risk of serious damage to eyes.

· **Safety phrases:**

24 Avoid contact with skin.

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

39 Wear eye/face protection.

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

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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**

41 Risk of serious damage to eyes.

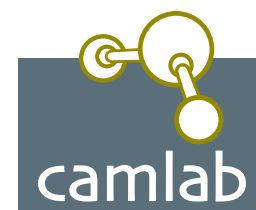
· **Department issuing data specification sheet:** Technical Department

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

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# Material Safety Data Sheet

## According to 91/155 EEC



Printing date 02.06.2005

Reviewed on 02.06.2005

### 1 Identification of substance:

- **Product details:** Reagent for water analysis
- **Product name:** Silica HR Molybdate F10, 25 ml
- **Catalogue number:** CW/53.17.20, CW/53.17.23, CW/53.19.50, CW/53.19.53
- **Supplier:**  
Camlab Limited  
Camlab House, Norman Way, Over, Cambridge CB4 5WE  
United Kingdom  
Tel: +44 (0)1954 233100
- **Informing department:** Technical Support
- **Emergency information:**  
National Poisons Information Service, United kingdom  
Tel: 0870 600 6266 (24 hours) • <http://www.npis.org/>

### 2 Composition/Data on components:

- **Chemical characterization:**
- **CAS No. Designation:**  
10102-40-6 sodium molybdate
- **Identification number(s):**
- **EINECS Number:** 231-551-7

### \* 3 Hazards identification

- **Hazard designation:** void
- **Information pertaining to particular dangers for man and environment** void

### \* 4 First aid measures

- **General information** No special measures required.
- **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.
- **After swallowing**  
Drink copious amounts of water, induce vomiting.  
In case of persistent symptoms consult doctor.
- **The following symptoms may occur:**  
after inhalation:  
coughing  
mucous membrane irritation  
after swallowing:  
sickness  
diarrhoea  
vomiting  
general feeling of sickness

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## According to 91/155 EEC

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**Product name: Silica HR Molybdate F10, 25 ml**

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drop in blood pressure

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### \* 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.
- **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.  
Ambient fire may liberate hazardous vapours.

### \* 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.
- **Additional information:** No dangerous materials are released.

### \* 7 Handling and storage

- **Handling**
- **Information for safe handling:** Thorough dedusting.
- **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.  
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:** Not required.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**  
The usual precautionary measures should be adhered to general rules for handling chemicals.
- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Filter P1
- **Protection of hands:**  
No chemical-protective gloves required.  
Preventive skin protection by use of skin-protecting agents is recommended.

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**Product name: Silica HR Molybdate F10, 25 ml**

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- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

### 9 Physical and chemical properties:

· <b>Form:</b>	Powder
· <b>Colour:</b>	White
· <b>Odour:</b>	Odourless
· <b>Melting point/Melting range:</b>	690°C
· <b>Boiling point/Boiling range:</b>	Not applicable
· <b>Flash point:</b>	Not applicable
· <b>Inflammability (solid, gaseous)</b>	Product is not inflammable.
· <b>Decomposition temperature:</b>	130°C
· <b>Danger of explosion:</b>	Product is not explosive.
· <b>Density at 20°C</b>	3.6 g/cm <sup>3</sup>
· <b>Settled apparent density at 20°C ~ 1000 kg/m<sup>3</sup></b>	
· <b>Solubility in / Miscibility with Water at 20°C:</b>	840 g/l
· <b>pH-value (10.3 g/l) at 20°C:</b>	7.2
· <b>Organic solvents:</b>	0.0 %
· <b>Solids content:</b>	100.0 %

### \*10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** see chapter 5

### \*11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

#### 10102-40-6 sodium molybdate

Oral	LD50	4233 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritant effect.
- **Sensitization:** No sensitizing effect known.
- **Experience with humans:**  
Can cause liver damages.  
Can cause kidney damages.
- **Additional toxicological information:**  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.  
The material is not subject to classification according to EC lists in the last version.

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Printing date 02.06.2005

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**Product name: HR Molybdate F10, 25 ml**

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The usual precautionary measures should be adhered to general rules for handling chemicals.

### 12 Ecological information:

- **Information about elimination (persistence and degradability):**
- **Other information:** Methods for the determination of biodegradability are not applicable to inorganic substances.
- **Ecotoxicological effects:**

- **Acquatic toxicity:**

**10102-40-6 sodium molybdate**

EC50	330 mg/l/48h (Daphnia magna)
LC50	7600 mg/l/96h (Onchorhynchus mykiss)

- **General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralized.

### 13 Disposal considerations

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

- **European waste catalogue**

16 05 09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08
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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### 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 is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).

### 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.

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

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

**Material Safety Data Sheet**  
According to 91/155 EEC

Printing date 09.07.2004

Reviewed on 09.07.2004

\* **1 Identification of substance:**

- **Product details:** Reagent for water analysis
- **Product name:** Silica HR Citric Acid F10, 25 ml
- **Catalogue number:** CW/53.17.10, CW/53.17.13, CW/53.19.40, CW/53.19.43
- **Supplier:**  
Camlab Limited  
Camlab House, Norman Way, Over, Cambridge CB4 5WE  
United Kingdom  
Tel: +44 (0)1954 233100
- **Informing department:** Technical Support
- **Emergency information:**  
National Poisons Information Service, United kingdom  
Tel: 0870 600 6266 (24 hours) • <http://www.npis.org/>

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

- **Chemical characterization:**
- **CAS No. Designation:**  
77-92-9 citric acid
- **Identification number(s):**
- **EINECS Number:** 201-069-1

**3 Hazards identification**

- **Hazard designation:**



*Xi Irritant*

- **Information pertaining to particular dangers for man and environment**  
*R 36 Irritating to eyes.*

\* **4 First aid measures**

- **After inhalation** Supply fresh air and call for doctor for safety reasons.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water.  
Call a doctor immediately.
- **After swallowing**  
Drink copious amounts of water, induce vomiting.  
Seek medical treatment.
- **The following symptoms may occur:**  
After swallowing of large amounts:  
pain  
mucous membrane irritation  
vomiting  
coughing

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after inhalation:  
irritation

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **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.  
combustible
- **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:** Collect mechanically.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** Protect from heat.
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:**  
Store away from metals.  
store away from solvents
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store under dry conditions.
- **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:** Not required.
- **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.  
Avoid contact with the eyes and skin.
- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Filter P2

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**Product name: Silica HR Citric Acid F10, 25 ml**

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· **Protection of hands:**

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:  $\geq 0.1$  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.

· **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:** Light weight protective clothing

### 9 Physical and chemical properties:

· <b>Form:</b>	Powder
· <b>Colour:</b>	White
· <b>Odour:</b>	Odourless
· <b>Melting point/Melting range:</b>	153°C
· <b>Boiling point/Boiling range:</b>	Not determined
· <b>Flash point:</b>	Not applicable
· <b>Inflammability (solid, gaseous)</b>	Product is not inflammable.
· <b>Ignition temperature:</b>	345°C
· <b>Danger of explosion:</b>	Product is not explosive.
· <b>Vapour pressure at 20°C:</b>	< 0.1 hPa
· <b>Density at 20°C</b>	1.665 g/cm <sup>3</sup>
· <b>Settled apparent density at 20°C</b>	560 kg/m <sup>3</sup>
· <b>Solubility in / Miscibility with Water at 20°C:</b>	1330 g/l
· <b>pH-value (7.93 g/l) at 20°C:</b>	2.2
· <b>Organic solvents:</b>	0.0 %
· <b>Solids content:</b>	100.0 %

### 10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Materials to be avoided:**

oxidizing agents

alkalis

metals

· **Dangerous reactions** No dangerous reactions known

· **Dangerous products of decomposition:** No dangerous decomposition products known

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**Product name: Silica HR Citric Acid F10, 25 ml**

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### 11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

77-92-9 citric acid

Oral LD50	3000 mg/kg (rat)
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- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritant effect.

- **Sensitization:** No sensitizing effect known.

### 12 Ecological information:

- **Information about elimination (persistence and degradability):**

- **Other information:**

The product is easily biodegradable.

98% / 2 d

- **Behaviour in environmental systems:**

77-92-9 citric acid

log P(o/w)	-1.72 (20°C) (.)
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- **Mobility and bioaccumulation potential:** Does not accumulate in organisms

- **Ecotoxicological effects:**

- **Aquatic toxicity:**

77-92-9 citric acid

Daphnia EC50	~ 120 mg/l/72 h (Daphnia magna)
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LC50	440-760 mg/l/96h (Leuciscus idus)
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- **Additional ecological information:**

- **CSB-value:**

77-92-9 citric acid

COD	0.728 g/g (.)
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- **BSB5-value:**

77-92-9 citric acid

BSB5	0.526 g/g (.)
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- **General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

### 13 Disposal considerations

- **Product:**

- **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

16 05 08	discarded organic chemicals consisting of or containing dangerous substances
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- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

(Contd. on page 5)

## Material Safety Data Sheet

According to 91/155 EEC

Printing date 09.07.2004

Reviewed on 09.07.2004

**Product name: HR Citric Acid F10, 25 ml**

(Contd. of page 4)

· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID-GGVS/E Class:** -
- **Maritime transport IMDG:**
- **Marine pollutant:** No
- **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:**  
Xi Irritant
- **Risk phrases:**  
36 Irritating to eyes.
- **Safety phrases:**  
2 Keep out of the reach of children.  
25 Avoid contact with eyes.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
46 If swallowed, seek medical advice immediately and show this container or label.  
56 Dispose of this material and its container to hazardous or special waste collection point.  
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.

- **Department issuing data specification sheet:** Technical Department
- **\* Data compared to the previous version altered.**