



Safety data sheet/ EG-Sicherheitsdatenblatt  
Date of establishment: 08/01/03  
Revision date:

Product/ Product group: **Patina copper**

### 1.1 Substance/Preparation and Company Name

### 1.2 Information on the product

### 1.3 Information on manufacturer/Supplier

Supplier: **Tiffany Glaskunst GmbH**  
Street: **Helleforthstr. 18-20**  
UIP Code/town: **D-33758 Schloß Holte Stukenbrock**  
Tel.: **+49 5207 91280**  
Fax.: **+49 5207 912840**  
e-mail: **tgk@tgk.de**  
Internet: **http://www.tgk.de**

Telephone number in emergency cases: 05207-9128-0

## 2. Composition/Information on Ingredients :

### Chemical characteristics:

<b>Designation of the substance</b>	Copper-II-sulphate-5-hydrate
<b>CAS-No.</b>	7758-99-8
<b>EC-No.</b>	231-847-6
<b>Danger symbol</b>	Xn
<b>Customs no.</b>	2833.25 00
<b>EINECS-no.</b>	029-004-00-00
<b>Content</b>	< 20%
<b>R-phrases</b>	R 22, 36/38

<b>Designation of the substance</b>	Nitric acid
<b>CAS-No.</b>	7697-37-2
<b>EC-No.</b>	231-714-2
<b>Danger symbol</b>	C, O
<b>EINECS-no.</b>	007-004-01-9
<b>Content</b>	< 5%
<b>R-phrases</b>	R 8, 35

## 3. Possible hazards:

### Danger symbol:

C – corrosive

### Special dangers for humans and environment

R 34 causes corrosion.

## 4. First Aid Measures:

**Inhalation:**

Immediately fresh air, seek medical attention. A prophylactic dose of dexamethason spray is recommended.

**Eye contact:**

Rinse immediately with opened palpebral fissure with plenty of water for at least 15 min. Seek medical attention.

**Skin contact:**

Wash thoroughly with plenty of water and soap, remove contaminated clothing immediately, seek medical attention if skin irritation (reddening, etc.) persists.

**Ingestion:**

Give water to drink, do not induce vomiting. Seek medical attention and present this data sheet.

**Special measures for first aid:**

Eye-rinsing bottle

In case of lung irritation dexamethason-dosing aerosol.

Danger of lung oedema. Symptoms can appear belatedly.

**5. Fire fighting measures:**

**Appropriate extinguishing media:**

The product is not combustible itself. Adapt extinguishing measures to environmental fire. Fight nitric oxide gases with water jet.

**Unadequate extinguishing media for safety reasons:**

No information.

**Special hazards by the material or the composition, its combustion products or generated gases:**

In case of fire, nitric oxide (Nox) can be released.

**Additional information:**

Cool endangered containers with water jet.

**6. Accidental release measures:**

**Personal precaution measures:**

Use personal protection equipment.

**Environmental protection measures:**

Do not let pass into canalisation. Avoid penetrating of surface water or ground water and soil. Fight gases/vapours/mist with water jet.

**Measures for cleaning up/absorbing**

Dilute with plenty of water. Use neutralisation agent. Provide for sufficient ventilation.

**7. Handling and storage:**

**Handling:**

**Information for secure handling:**

Keep container firmly locked. Provide for good ventilation/exhaustion at working place. Avoid formation of aerosol.

**Storage:**

**Requirements for storage rooms and containers:**

Store in cool, dark place.  
Do not store together with alkali (lye). Store separately from combustible substances.

**Water hazard class:**

WGK 1

**Storage class:**

According to VCI concept: 8

**8. Expose controls and personal protection:**

**Ingredients with limit values on working place which have to be controlled:**

Nitric acid (CAS-No. 7696-37-2) 100% MAK 5 mg/m<sup>3</sup>, 2 ml/m<sup>3</sup>

**Personal protection equipment:**

**General protection and hygiene measures:**

Keep away from food, drinks and fodder. Remove contaminated resp. soaked clothing immediately. Wash hands before breaks and at end of work. Avoid contact with skin and eyes.

**Respiratory protection:**

In case of short-term or slight exposition respiratory filter device, in case of intensive resp. long-term exposition independant respiratory device. Filter device for short-term use: filter B.

**Hand protection:**

Protection gloves, acid- resistant.

**Eye protection:**

Protection goggles with side-shields.

**Body protection:**

Acid- resistant protection clothing.

**9. Physical and chemical properties:**

▪ <b>Aggregate state:</b>	liquid
▪ <b>Colour:</b>	blue
▪ <b>Odour:</b>	characteristic
▪ <b>pH-value:</b>	< 1
▪ <b>Boiling point/Boiling range (in °C):</b>	not applicable
▪ <b>Melting point/Melting range (in °C):</b>	100° C
▪ <b>Flaming point:</b>	not applicable
▪ <b>Specific gravity at 20°C:</b>	1,035 (g/ml)
▪ <b>Solubility in water:</b>	soluble
▪ <b>Explosion danger:</b>	not applicable

**10. Stability and reactivity:**

**Conditions to avoid/thermic decomposition:**

No decomposition in case of appropriate use.

**Dangerous reactions:**

Reacts with different metals releasing NO<sub>x</sub>, with base metals releasing hydrogen.  
Dangerous reactions with combustible substances and strong alcalis.

**Dangerous decompositon products**

Nitrose vapours, corrosive gases/vapours.

**11. Toxicological information:**

**Primary irritating effects:**

**Skin:**

Corrosive effects on skin and mucous membranes

**Eye:**

Corrosive effect

**Sensibilisation:**

No sensibilisation effect known.

**Additional toxicological information:**

In case of ingestion corrosive effect in region of the mouth and throat, and danger of perforation of the gullet and stomach.

**12. Ecological information:**

**Information to elimination (persistence and biodegradability):**

The product has been classified having a weak water hazard. (WGK 1)

**Additional information:**

**Biodegradability:**

Do not let pass indilutedly resp. in greater quantities in ground water, waters or canalisation. Shall not pass indilutedly in sewage.

**13. Disposal considerations:**

**For the material/residues**

**Recommendation:**

In accordance with regional legal guidelines bring to an authorised waste pit.

**Waste no.:**

**For contaminated packing:**

In case of passing on of contaminated empty packing, recycling or disposal, inform recipient about possible dangers.

**Recommended cleaning agent:**

Water, if necessary, adding cleaning agents.

**14. Transport information:**

This product is dangerous for transport according to transport regulations.

**Exception:**

**Limited Quantity:**

Within these limits the product is not classified as dangerous for transport:

**Upper limit:** 4 Litres

**Lower limit:** 1 Litre

**Road transport:**

**Road/Rail transport (GGVS/ADR/GGVE/RID)**

UN-No.:	2031
GGVS/ADR/RID (class)	8
Number/letter:	2b
Kemmler No.	80
Designation of the good:	nitric acid

**Transport by sea ships:**

GGVSee/MDG-Code:	8
EmS-No.:	8-03
MFAG-No.:	700
UN-No.	2031
Correct technical name:	nitric acid:

**Transport by aeroplanes**

ICAO/IATA-DGR class:	8
Packing group:	II
UN-No.:	2031
Correct technical name:	nitric acid

**15. Regulatory information:**

**Marking according to EC guidelines:**

**Danger symbol designation of the product:**

C – corrosive

**Danger-defining component for labelling: n**

Nitric acid 7697-37-2

**R-phrases:**

R 34: causes corrosion

**S-phrases:**

S 2: Shall not be accessed by children

S 28: Rinse immediately with plenty of water in case of skin contact

S 45 In case of accident or discomfort, seek medical attention immediately and present label or safety data sheet if possible

**National guidelines:**

No information

**Classification according to VbF:**

No information

**Technical instruction air:**

No information

**Water hazard class:**

WGK 1 (Self-assessment of the manufacturer  
– weak water hazard)

**Memorandum BG Chemie:**

M 004: Irritating substances/Corrosive substances

M 051: Dangerous chemical substances

**16. Additional Information:**

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.