



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Version: 1

Language: EN

Revision date: 23.04.2013

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

1.1 Product identifier

Greinox Rapid

1.2 Relevant, identified uses of the substance or mixture and uses advised against

Identified uses of the substance or mixture: Etchant and acids

Not recommended uses of the substance or mixture: Other

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier

Kai Greising e. K. Clean Marker

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D 73340 Amstetten

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1.4 Emergency telephone number

Giftnotrufzentrale Freiburg

Telephone: +49 (0) 761 19 240

1.5 Dept. responsible for information

Kai Greising e. K. Clean Marker

2. Hazards identification

2.1 Classification of the substance or mixture

Regulation (EC) No 1272/2008:
Skin Corr. 1B; H314 , Metal Cor. 1; H290

Directive 67/548/EEC:
C; R35

2.2 Label elements

2.2.1 Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms:



Signal word: GHS05
Danger

H phrases: 290 May be corrosive to metals.
314 Causes severe skin burns and eye damage.

P phrases: 280 Wear protective gloves/protective clothing/eye protection/face protection.
301+330+331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
309 IF exposed or if you feel unwell:
310 Immediately call a POISON CENTER or doctor/physician.

2.2.2 Labelling according to Directive 67/548/EEC

Hazard symbols:



R phrases: C Corrosive.
35 Causes severe burns.

S phrases: 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
30 Never add water to this product.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show this label if possible).

2.3 Other hazards

See attached safety data sheets and/or usage instructions.

3. Composition/information on ingredients

3.1 Chemical characterization of the substance or mixture

Aqueous solution of mineral acids and organic substances, contains a small amount of hydrofluoric acid.

3.2 Composition of the substance or mixture

Substance:	EC-no.:	CAS-No.:	INDEX no.:	REACH-no.:	Concentration:	Classification: EC 1272/2008(CLP):	Classification: 67/548/EEC:
Sulfuric acid	231-639-5	7664-93-9	015-011-00-6		15 wt-%	Metal Cor. 1; H290 Skin Corr. 1B; H314	C; R35

Ingredients with EC exposure limits

Substance:	EC-no.:	CAS-No.:	INDEX no.:	REACH-no.:	Concentration:	Classification: EC 1272/2008(CLP):	Classification: 67/548/EEC:

(The wording of the listed risk phrases is given in Chapter 16)

3.3 Additional information

none

4. First aid measures

4.1 Description of first aid measures

- General information:** In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).
- Following inhalation:** Move victim to fresh air. Put victim at rest and keep warm. Immediately get medical attention.
- After skin contact:** After contact with skin, wash immediately with plenty of water and soap. Immediately get medical attention.
- Following eye contact:** In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
- After ingestion:** Rinse mouth immediately and drink large quantities of water. No administration in cases of unconsciousness or cramps. Do not induce vomiting. Immediately get medical attention.
- Self-protection:** First aid assistant: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms:** Causes skin irritation. Respiratory complaints. Pulmonary irritation
- Nature of Hazard:** Causes burns. Pulmonary oedema.

4.3 Indication of any immediate medical attention and special treatment needed

- Emergency aid:** Let water be swallowed in little sips (dilution effect). Do not induce vomiting.
- Treatment:** First Aid, decontamination, treatment of symptoms. Apply cortisone spray at early stage.

5. Fire fighting measures

5.1 General information

Extinguishing materials should be selected according to the surrounding area. The product itself is not combustible.

5.2 Extinguishing media

- Suitable:** Water fog. Carbon dioxide (CO₂). Foam. Dry extinguishing powder.
- Unsuitable:** none

5.3 Special hazards arising from the substance or mixture

Can be released in case of fire: Sulfur oxides.

5.4 Advice for fire fighters

Special protective equipment for fire-fighters

In case of fire: Wear self-contained breathing apparatus. Wear chemical resistant suit.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment. Provide adequate ventilation.

6.2 Environmental precautions

Do not empty into drains or the aquatic environment. Do not allow to enter into soil/subsoil.

6.3 Methods and materials for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the assimilated material according to the section on waste disposal. Avoid generation of dust. Clear contaminated area thoroughly. Wash with generous amount of water.

6.4 References to other sections

See protective measures under point 7 and 8.

7. Handling and storage

7.1 Precautions for safe handling

Information for safe handling

Avoid contact with skin and eyes.

Technical measures

No special technical protective measures are necessary.

Precautions against fire and explosion

Usual measures for fire prevention.

Additional information

Corrosive to metals.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

No special technical protective measures are necessary.

Packaging materials

Keep/Store only in original container.

Requirements for storerooms and containers

Keep container tightly closed.

Information about storing together in storage facility

Do not store together with: metal. Oxidizing agents. Keep away from food, drink and animal feedingstuffs.

Further information concerning storage conditions

none

Storage class: 8 B Non-combustible corrosive substances.

7.3 Specific end use(s)

Observe instructions for use.

8. Exposure controls / personal protection

8.1 Control parameters

8.1.1 Limits for occupational exposure

Exposure limit values

Substance:	CAS-No.:	Source:	Occupational exposure limit value:	Limitation of exposure peaks:	Remark:

EC exposure limit values

Substance:	CAS-No.:	Source:	Occupational exposure limit value:	Limitation of exposure peaks:	Remark:
Sulfuric acid	7664-93-9	GESTIS International Limit Values (Sulfuric Acid 03/13)	0,05 mg/m ³ T	-	EU

8.1.2 DNEL and PNEC values

DNEL-values

Substance:	CAS-No.:	DNEL/DMEL	Industry	Professional	Consumer
Sulfuric acid	7664-93-9	Ingestion short term (acute)	-	-	-
		Ingestion Long Term (repeated)	-	-	-
		Skin contact short term (acute)	-	-	-
		Skin contact Long Term (repeated)	-	-	-
		Inhalation short term (acute)	0,1 mg/m ³	0,1 mg/m ³	-
		Inhalation Long Term (repeated)	0,05 mg/m ³	0,05 mg/m ³	-

PNEC-values

Substance:	CAS-No.:	PNEC	Worker, industry	Worker, professional	Consumer
Sulfuric acid	7664-93-9	PNEC water short term (single use)	-	-	-
		PNEC water Long Term (continuous)	0,0025 mg/l - 0,002 mg/kg 0,00025 mg/l - 0,002 mg/kg (salt water) 8,8 mg/l (waste water)	0,0025 mg/l - 0,002 mg/kg 0,00025 mg/l - 0,002 mg/kg (salt water) 8,8 mg/l (waste water)	-
		PNEC soil short term (single use)	-	-	-
		PNEC soil Long Term (continuous)	-	-	-
		PNEC air short term (single use)	-	-	-
		PNEC air Long Term (continuous)	-	-	-

8.1.3 Control-Banding

Control-Banding

none

8.1.4 Additional information

T: Thoracic fraction

EU: European Union

8.2 Exposure controls

Occupational exposure controls

Technical measures and the application of adequate working methods take priority over the use of personal protection equipment.

Chemical handling

Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work. Apply skin care products after work. Wash contaminated clothing prior to re-use.

Personal protection equipment

Only wear fitting, comfortable and clean protective clothing.

Respiratory protection

Respiratory protection required in case of: aerosol or mist generation. Suitable respiratory protective equipment: filter respirator (full mask or mouth-piece) with filter:

Hand protection

Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): DIN EN 374 Suitable material: PVC (Polyvinyl chloride). CR (polychloroprenes, Chloroprene rubber). NBR (Nitrile rubber). FKM (fluororubber). Butyl rubber.

Eye protection

Tightly sealed safety glasses.

Skin protection

For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes). Only wear fitting, comfortable and clean protective clothing. Barrier creams are not substitutes for body protection.

Environmental exposure controls

refer to chapter 7. No further action is necessary.

Consumer exposure controls

refer to chapter 7. No further action is necessary.

8.3 Exposure scenario

none

9. Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

State of matter:	liquid
Colour:	colourless
Odour:	odourless
Odour threshold:	none

Safety relevant basis data

	Parameter	Value	Unit	Remark
Density:	at °C: 20	1,5	g/cm ³	
Package density:				not applicable
pH:	at °C: 20 at g/l: 100	< 0,5		
Melting point / range:		5	°C	Acid.
Boiling temperature / range:		105	°C	Acid.
Flash point:				none/none
Flammability:				none/none
Lower flammability limit:				not applicable
Upper flammability limit:				not applicable
Explosion hazard:				not explosive.
Lower explosion limit:				not applicable
Upper explosion limit:				not applicable
Ignition temperature:				none/none
Decomposition temperature:		338	°C	No data available
Oxidizing characteristics:				Not oxidizing.
Vapour pressure:				No data available
Relative vapour density:				No data available
Speed of vaporization/evaporation rate:				No data available
Solubility in water:				easily soluble.
Fat solubility:				No data available
Solubility in log P O/W (n-octanol / water):	:			not applicable
Viscosity:				No data available
Solvent separation test:				No data available
Solvent content:				No data available

9.2 Other information

none

10. Stability and reactivity

10.1 Reactivity

Corrosive to metals.

10.2 Chemical stability

With proper storage and handling the product is stable.

10.3 Possibility of hazardous reactions

In a watery solution and in contact with metals, product develops hydrogen .

10.4 Conditions to avoid

heat.

10.5 Incompatible materials

Alkalis (alkalis). metal. Oxidizing agents.

10.6 Hazardous decomposition products

Can be released in case of fire: Sulfur oxides.

10.7 Additional information

none

11. Toxicological information

11.1 Information on toxicological effects

There are no data available on the mixture itself. Data apply to the principal component.

Acute toxicity

Substance:	CAS-No.:	Toxicological information
Sulfuric acid	7664-93-9	Acute toxicity, oral LD50: 1530 mg/kg (Rat.)

Specific symptoms in laboratory animals

none

11.2 Irritation and etching

Irritant effect on the skin

highly caustic.

Irritant effect on the eye

highly caustic.

Irritant effect on the respiratory tract

highly caustic.

Etching

Causes severe skin burns and eye damage.

11.3 Sensitization

No information available.

11.4 Repeated dose toxicity

No information available.

11.5 CMR effects

Carcinogenicity

No indications of human carcinogenicity exist.

Mutagenicity

No indications of human germ cell mutagenicity exist.

Reproductive toxicity

No indications of human reproductive toxicity exist.

11.6 General remarks

none

Practical experience

Following symptoms can occur: Corneal opacity. Coughing. shortage of breath. Abdominal pain.

Other observations

none

Additional information

none

12. Ecological information**12.1 Toxicity**

There are no data available on the mixture itself. Ecological information refers to main component.

Eco toxicity

Substance:	CAS-No.:	Ecotoxicity
Sulfuric acid	7664-93-9	Acute daphnia toxicity LC50: 29 mg/l/24 h (Water flea [Daphnia magna]) Acute crustacean toxicity LC50: 42.5 mg/l/48 h (Brown shrimp [Crangon crangon])

12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bio accumulative potential

No indication of bio-accumulation potential.

12.4 Mobility in soil

If product enters soil, it will be mobile and may contaminate groundwater

12.5 Results of PBT and vPvB assessment

This substance does not meet the criteria for classification as PBT or vPvB.

12.6 Other adverse effects

none

12.7 Further ecological information

Do not empty into drains or the aquatic environment. Do not allow to enter into soil/subsoil.

12.8 Further details

The product leads to changes in the pH value of the test system. The result refers to an unneutralised sample.

13. Disposal considerations**13.1 Waste treatment methods****Appropriate disposal/Product**

Waste disposal according to EC Directives 75/442/EEC and 91/689/EEC on waste and hazardous waste in

their latest versions.

Appropriate disposal/ packaging

Cleaned containers may be recycled. Handle contaminated packaging in the same way as the substance itself.

Control report for waste code/ waste marking according to EAKV

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Waste key product: 11 01 06 - acids not otherwise specified

Waste key packaging: 15 01 10 - packaging containing residues of or contaminated by dangerous substances

Remark

Waste disposal according to official state regulations.

14. Transport information

14.1 Overland transport (ADR/RID)

Proper Shipping name

SULFURIC ACID, CONC. = 15 %

UN No.: 2796

Label: 8

Packing Group: II

Classification code: C1

Remark: Limited quantity (LQ): 22/23
Tunnel restriction code: 2(E)

14.2 Transport by sea (IMDG)

Proper Shipping name

SULFURIC ACID, CONC. = 15 %

UN-No.: 2796

Label: 8

Packing Group: II

EmS-No: F-A,S-B

MFAG: -

Marine pollutant: NO

Special Provisions: Materials to avoid: Oxidizing agents. Organic peroxides Alkalis (alkalis). Keep away from food, drink and animal feedingstuffs.

Remark: Limited quantity (LQ): 22/23

14.3 Air transport (ICAO-TI / IATA-DGR)

Proper Shipping name

SULFURIC ACID, CONC. = 15 %

UN/ID-No.: 2796

Label: 8

Packing Group: II

Remark: Limited quantity (LQ): 22/23

14.4 Mail

Overland transport (ADR/RID)

15. Regulatory information

15.1 Labelling

Hazardous component(s) for labelling

Sulfuric acid

Special labelling of particular preparations

Safety data sheet available for professional user on request.

15.2 Safety, health and environmental regulations/legislation specific for the substance or mixture**EU-Regulations**

Directive 1999/13/EC on the limitation of emissions of volatile organic compounds (VOC-RL)

none

Regulation (EC) No 2037/2000 on substances that deplete the ozone layer

none

Regulation (EC) No 850/2004 on persistent organic pollutants

none

Regulation (EC) No 689/2008 concerning the export and import of dangerous chemicals

none

Regulation (EC) No 648/2004 (Detergents regulation)

none

Restrictions under Title VIII of Regulation (EC) No 1907/2006

none

National regulations

Moreover, national legislation has to be observed!

Informations on working limitations

none

Major Accidents Ordinance

none

Storage class according to VCI

8 B Non-combustible corrosive substances.

Water Hazard Class according to VwVwS

1 weak water pollutant (WGK 1)

Technical Instructions on Air Quality Control (TA-Luft)

none

Further regulations, limitations and legal requirements

none

15.3 Chemical safety assessment

For this preparation a chemical safety assessment has been carried out: -

Chemical safety assessments for substances in this mixture were not carried out.

16. Other information**16.1 Wording of the H and R-phrases under paragraph 3**

Regulation (EC) No 1272/2008

290 May be corrosive to metals.

314 Causes severe skin burns and eye damage.

Directive 67/548/EEC

35 Causes severe burns.

16.2 Training instructions

none

16.3 Recommended restrictions of use

refer to chapter 1.

16.4 Further remarks

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

16.5 Documentation of changes

none

16.6 Data sources

Data arise from reference works and literature.

16.7 Key and definitionnone

17. Appendix**17.1 Exposure scenario**-
