



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Greinox TF

CAS No.:
EC No.:
INDEX No.:
REACH No.:

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

Relevant identified uses: Industrial uses
Uses advised against: Other:

1.3. Details of the supplier of the safety data sheet

Manufacturer

Kai Greising e. K. Clean Marker

Industriestrasse 29/2
D 73340 Amstetten

Telephone: +49 (0) 7331 30 580
Telefax: +49 (0) 7331 981 722

Supplier (manufacturer/importer/only representative/downstream user/distributor)

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Information telefax: +49 (0) 7331 981 722
E-mail (competent person): -
Website: <http://www.greising.com/>

Dept. responsible for information:

Kai Greising e. K. Clean Marker

1.4. Emergency telephone number

Giftnotrufzentrale Freiburg

Telephone: +49 (0) 761 19 240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

2.2. Label elements

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



Signal word: GHS05
Danger

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

Precautionary statements: 234 Keep only in original container.
280 Wear protective gloves/protective clothing/eye protection/face protection.
301+330+331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
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+311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
390 Absorb spillage to prevent material damage.

2.3. Other hazards

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

SECTION 3: Composition / information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Aqueous solution of mineral acids and organic substances

Composition/information on ingredients

Substance:	EC-no.:	CAS-No.:	INDEX no.:	REACH-no.:	Concentration:	Classification: EC 1272/2008(CLP):
Sulfuric acid	231-639-5	7664-93-9	016-020-00-8		5 - 15 %	Metal Cor. 1; H290 Skin Corr. 1B; H314

(Full text of H- and EUH-phrases: see section 16.)

Additional information

none

SECTION 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). Take off immediately all contaminated clothing.
- Following inhalation:** Move victim to fresh air. Put victim at rest and keep warm. Immediately get medical attention.
- Following skin contact:** After contact with skin, wash immediately with plenty of water and soap. Immediately get medical attention.
- After 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 of the first aider: 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:** Corneal opacity. Causes burns.

4.3. Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Sulfur oxides.

5.3. Advice for firefighters

General information

Extinguishing materials should be selected according to the surrounding area. Use water spray/stream to protect personnel and to cool endangered containers. Move undamaged containers from immediate hazard area if it can be done safely.

Special protective equipment for firefighters:

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment. Guide people to safety. Provide adequate ventilation. Keep away from unprotected people. Keep upwind.

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 material for containment and cleaning up

Treat the assimilated material according to the section on waste disposal.

6.4. Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

Avoid contact with skin and eyes.

Technical measures

Provide for sufficient ventilation and punctiform suction at critical points.

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

Ensure adequate ventilation of the storage area.

Packaging materials

Keep/Store only in original container.

Requirements for storage rooms and vessels

Keep container tightly closed.

Hints on joint storage

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

Storage class: 8 B Non-combustible corrosive substances.

Further information on storage conditions

none

7.3. Specific end use(s)

Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

occupational exposure limit value

Substance:	CAS-No.:	Source:	Occupational exposure limit value:	Limitation of exposure peaks:	Remark:
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Substance with a common (EC) occupational exposure limit value

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

DNEL-/PNEC-values

DNEL value

Substance:	CAS-No.:	DNEL/DMEL	Industry	Professional	consumer

PNEC Value

Substance:	CAS-No.:	PNEC	Worker, industry	Worker, professional	consumer

Risk management measures according to used control banding approach

none

Additional information

none

8.2. Exposure controls

Occupational exposure controls

Provide for sufficient ventilation and punctiform suction at critical points. Technical measures and the application of adequate working methods take priority over the use of personal protection equipment.

General protection and hygiene measures

Do not eat, drink, smoke or sneeze at the workplace.

Personal protection equipment

Only wear fitting, comfortable and clean protective clothing.

Respiratory protection

Respiratory protection required in case of: Formation of aerosol. Suitable respiratory protective equipment: Combination filter device (DIN EN 141)..

Hand protection

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

Eye/face protection

Tightly sealed safety glasses.

Body protection

Suitable protection of the body: Overall. 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.

Environmental exposure controls

refer to chapter 7. No further action is necessary.

Consumer exposure controls

refer to chapter 7. No further action is necessary.

Exposure Scenario

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Colour:	colourless
Odour:	odourless
Odour threshold:	none

Safety relevant basis data

	parameter	unit	remark
Density:	at °C: 20	1,5 g/cm ³	
Bulk density:			No data available
pH:	at °C: 20	< 0,5	
Melting point/freezing point:		- 5 °C	No data available
Initial boiling point and boiling range:		~ 105 °C	No data available
Flash point:			No data available
Flammability (solid, gas):			not applicable
Explosivity:			not applicable
Lower explosion limit:			not applicable
Upper explosion limit:			not applicable
Ignition temperature:			none
Decomposition temperature:		~ 338	
Oxidizing potential:			Not oxidizing.
Vapour pressure:			No data available
Vapour density:			No data available
Evaporation rate:			No data available
Water solubility:			easily soluble.
Fat solubility:			No data available
Soluble in:	:		not applicable
Partition coefficient: n-octanol/water:			No data available
Viscosity:			No data available
Solvent separation test:			No data available
Solvent content:			No data available

9.2. Other information

none

SECTION 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. Oxidising agent

10.6. Hazardous decomposition products

Can be released in case of fire: Sulfur oxides.

Additional information

none

SECTION 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

No information available.

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.

Additional information

Causes severe skin burns and eye damage.

Sensitization

No information available.

Repeated dose toxicity (subacute, subchronic, chronic)

No information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No indications of human carcinogenicity exist.

Germ cell mutagenicity

No indications of human germ cell mutagenicity exist.

Reproductive toxicity

No indications of human reproductive toxicity exist.

General remarks

none

Practical experience/human evidence

Following symptoms can occur: Corneal opacity. Coughing.

Other observations

none

Other information

none

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

Ecotoxicity

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. Bioaccumulative 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

Further ecological information

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

Further details

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

SECTION 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 / Package

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

List of proposed waste codes/waste designations in accordance with EWC

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

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

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

remark

Waste disposal according to official state regulations.

SECTION 14: Transport information

14.1. UN number

UN No.: 3264

14.2. UN proper shipping name

Official directive for the transport
Corrosive liquid, acidic, inorganic, n.o.s.

Proper Shipping name

Corrosive liquid, acidic, inorganic, n.o.s.

14.3. Transport hazard class(es)

Hazard label(s): 8

Classification code: C1

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmental hazards: none

14.6. Special precautions for user

Land transport (ADR/RID)

Remark:

Transport category: 2

Tunnel restriction code: E

Special provisions: 274

Limited quantity (LQ): 5 l

Sea transport (IMDG)

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

Remark:

EmS-No: F-A, S-B

Marine pollutant: No

Special provisions:

Limited quantity (LQ): 5 l

Air transport (ICAO-TI / IATA-DGR)

Remark:

Limited quantity (LQ): 5 l

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remark:

SECTION 15: Regulatory information

Labeling

Hazardous component(s) for labelling

Sulfuric acid

Special labelling of particular preparations

Safety data sheet available for professional user on request.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).

none

Regulation (EC) No 2037/2000 concerning materials, which cause damage to the ozone layer.

none

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

none

National regulations

Observe in addition any national regulations!

Restrictions of occupation

none According to directive 94/33/EC, juveniles are only allowed to handle this product as long as all effects of dangerous substances are prevented.

Storage class

8 B Non-combustible corrosive substances.

Water hazard class (WGK)

1 weak water pollutant (WGK 1)

Other regulations, restrictions and prohibition regulations

none

15.2. Chemical Safety Assessment

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

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Relevant H- and EUH-phrases (Number and full text)

Hazard statements

290 May be corrosive to metals.

314 Causes severe skin burns and eye damage.

Training advice

none

Recommended restrictions of use

refer to chapter 1.

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.

Documentation of changes

none

Key literature references and sources for data

Data arise from reference works and literature.

Abbreviations and acronyms

none
