



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 Elektrolyt GE 21

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

Industriestrasse 29/2
D 73340 Amstetten

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Information contact

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E-mail (competent person): -

Website: <http://www.greising.com/>

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: -

Directive 67/548/EEC: -

2.2 Label elements

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

Hazard pictograms:

Signal word: -
 H phrases: -
 P phrases: -

2.2.2 Labelling according to Directive 67/548/EEC

Hazard symbols:

R phrases: -
 S phrases: -

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

Mixture of water, minerals and complexing salts, containing sodium nitrate.

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:

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: none

Nature of Hazard: none

4.3 Indication of any immediate medical attention and special treatment needed

Emergency aid: No data available

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

none

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

none

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

none

Information about storing together in storage facility

Keep away from food, drink and animal feedingstuffs.

Further information concerning storage conditions

none

Storage class: 12 Non-combustible liquids.

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:

8.1.2 DNEL and PNEC values

DNEL-values

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

PNEC-values

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

8.1.3 Control-Banding

Control-Banding

none

8.1.4 Additional information

none

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

With correct and proper use, and under normal conditions, breathing protection is not required.

Hand protection

Hand protection: not required.

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:	blue
Odour:	No data available
Odour threshold:	No data available

Safety relevant basis data

	Parameter	Value	Unit	Remark
Density:	at °C: 20	1,028	g/cm ³	
Package density:				not applicable
pH:		7		
Melting point / range:				No data available
Boiling temperature / range:		100	°C	
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:				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

none

10.2 Chemical stability

With proper storage and handling the product is stable.

10.3 Possibility of hazardous reactions

none

10.4 Conditions to avoid

heat.

10.5 Incompatible materials

none

10.6 Hazardous decomposition products

No data available

10.7 Additional information

none

11. Toxicological information

11.1 Information on toxicological effects

There are no data available on the mixture itself.

Acute toxicity

Substance:	CAS-No.:	Toxicological information
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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.

Eco toxicity

Substance:	CAS-No.:	Ecotoxicity

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: 06 03 99 – waste 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

UN No.:

Label:

Remark:

Packing Group:

Classification code:

Not a hazardous material with respect to these transportation regulations.

14.2 Transport by sea (IMDG)

Proper Shipping name

UN-No.:

Label:

EmS-No.:

Special Provisions:

Remark:

Packing Group:

MFAG:

Marine pollutant:

Keep away from food, drink and animal feedingstuffs.

Not a hazardous material with respect to these transportation regulations.

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

Proper Shipping name

UN/ID-No.:

Label:

Remark:

Packing Group:

Keep away from food, drink and animal feedingstuffs.

14.4 Mail

Overland transport (ADR/RID)

15. Regulatory information

15.1 Labelling

Hazardous component(s) for labelling

-

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
12 Non-combustible liquids.

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

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Directive 67/548/EEC

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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 definition

none

17. Appendix

17.1 Exposure scenario

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