# SAFETY DATA SHEET

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

## Elektrolyte Greinox 1000

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

### 1.1 Product identifier

Information on the product / trade name: **Elektrolyte Greinox 1000**

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

for Surface treatment, only for industrial use

REACH Registration Number: not relevant (mixture)

### 1.3 Details of the supplier of the safety data sheet

Information on the manufacturer / supplier:

**Kai Greising GmbH**
**Industriestraße 29/2**
**73340 Amstetten**
**Germany**
**phone: 0049-7331-3058-0**
**fax: 0049-7331-981722**

### 1.4 Emergency telephone number

| Name | Street | Postal code/ city | Telephone | Website |
|---|---|---|---|---|
| National Poisons Information Service City Hospital | Dudley Rd | B187QH Birmingham | 844 892 0111 | |

Emergency information service Germany **+49-761-19240**

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## SECTION 2: Hazards identification:

### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)
Corrosive to metals, Category 1, H290
For the full text of the H-Statements mentioned in this Section, see Section 16.
Classification (67/548/EEC or 1999/45/EC). In accordance with EC directives or respective national laws, the product does not need to be classified nor labelled.

### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms

Signal word
Warning

**Hazard statements:**

H290 May be corrosive to metals.

**Precautionary statements**

**Precautionary statements - prevention**

P234 Keep only in original container.
P260 Do not breathe vapor / spray / mist.
P280 Wear protective gloves / protective clothing / eye protection
P301 + P330 + P331 IF SWALLOWED: rinse mouth. DO NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Gently rinse with water for several minutes. Remove contact lenses, if possible. Continue rinsing.

**Precautionary statements - response**

P390 Absorb spillage to prevent material damage.

**Precautionary statements - storage**

P406 Store in corrosive resistant container with a resistant inner liner

### 2.3 Other hazards

During the electrochemical process, electrolyte vapors may form

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

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## SECTION 3: Composition/information on ingredients

### 3.1 Substance

not relevant (mixture)

### 3.2 Mixture

Description of the mixture

| Name of substance | Identifier | wt% | Classification acc. To GHS | Pictograms | Notes |
|---|---|---|---|---|---|
| ortho-Phosphoric acid | CAS No 7664-38-2<br>EC No 231-633-2<br>Index No 015-011-00-6<br>REACH Reg. No 01-2119485924-24-xxxx | 5 - <10 % | Met. Corr. 1 / H290<br>Acute Tox. 4 / H302<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318 |  | B(a)<br>GHS-HC<br>IOELV |

**Notes:**

B(a): The classification refers to an aqueous solution

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/ 2008/EC, Annex VI)

IOELV: Substance with a community indicative occupational exposure limit value

| Name of sub-stance | Identifier | Specific Conc. Limits | M-Factors | ATE | Exposure route |
|---|---|---|---|---|---|
| ortho-Phosphoric acid | CAS No 7664-38-2<br>EC No 231-633-2<br>Index No 015-011-00-6 | Skin Corr. 1B; H314: C ≥ 25 %<br>Skin Irrit. 2; H315: 10 % ≤ C < 25%<br>Eye Dam. 1; H318: C ≥ 25 %<br>Eye Irrit. 2; H319: 10 % ≤ C < 25% | - | 300 mg/kg | oral |

For full text of abbreviations: see SECTION 16

PBT/vPvB: Not applicable for inorganic substances

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General notes**

Take off immediately all contaminated clothing.

**Following inhalation**

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

**Following skin contact**

Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

**Following eye contact**
In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.
**Following ingestion**
Rinse mouth. Call a doctor if you feel unwell.

**4.2 Most important symptoms and effects, both acute and delayed**
Irritant effects

**4.3 Indication of any immediate medical attention and special treatment needed**
No information available.

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## SECTION 5: Firefighting measures

**5.1 Extinguishing media**

**Suitable extinguishing media**
Co-ordinate fire-fighting measures to the fire surroundings water spray, foam, dry extinguishing powder, carbon dioxide ($CO_2$)

**Unsuitable extinguishing media**
water jet

**5.2 Special hazards arising from the substance or mixture**
Not combustible.

**5.3 Advice for firefighters**
In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

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## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

**Advice for non-emergency personnel**
Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

**6.2 Environmental precautions**
Keep away from drains, surface and ground water. The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.

**6.3 Methods and materials for containment and cleaning up**
**Advices on how to contain a spill**
Covering of drains.
**Advices on how to clean up a spill**
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
**Other information relating to spills and releases**
Place in appropriate containers for disposal.

**6.4 Reference to other sections**
Indications about waste treatment see section 13.

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## SECTION 7: Handling and storage

**7.1 Precautions for safe handling**
No special measures are necessary.

**Advice on general occupational hygiene**
Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

**7.2 Conditions for safe storage, including any incompatibilities**
Storage conditions
Tightly closed.

**Incompatible substances or mixtures**
Observe hints for combined storage.
**Consideration of other advice**

**• Ventilation requirements**
Use local and general ventilation.

**• Specific designs for storage rooms or vessels**
Recommended storage temperature: 15 – 25 °C.

**7.3 Specific end use(s)**
No information available.

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## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**National limit values**
**Occupational exposure limit values (Workplace Exposure Limits)**

| Country | Name of agent | CAS No | Notation | Identifier | TWA [ppm] | TWA [mg/m³] | STEL [ppm] | STEL [mg/m³] | Source |
|---|---|---|---|---|---|---|---|---|---|
| EU | orthophosphoric acid | 7664-38-2 | | IOELV | | 1 | | 2 | 2000/39/EC |
| GB | orthophosphoric acid | 7664-38-2 | | WEL | | 1 | | 2 | EH40/2005 |

**Notation**
Ceiling-C Ceiling value is a limit value above which exposure should not occur
STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

**8.2 Exposure controls**

**Individual protection measures (personal protective equipment)**
**Eye/face protection**

Use safety goggle with side protection.

**Skin protection**

**• hand protection**
Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

• **type of material**
NBR (Nitrile rubber)
• **material thickness**
>0,11 mm
• **breakthrough times of the glove material**
>480 minutes (permeation: level 6)
• **other protection measures**
Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

**Respiratory protection**

Respiratory protection necessary at: Aerosol or mist formation. Type: B-P2 (combined filters for acidic gases and particles, colour code: Grey/White). Usually no personal respirative protection necessary.

**Environmental exposure controls**
Keep away from drains, surface and ground water.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on Basic physical and Chemical properties

| | |
|---|---|
| Form | liquid |
| Colour | red |
| Odour | odourless |
| Odour Threshold | Not applicable |
| pH | 5-6 |
| Melting point | 0°C |
| Boiling point | 100°C |
| Flash point | No information available. |
| Evaporation rate | No information available. |
| Flammability (solid, gas) | No information available. |
| Lower explosion limit | No information available. |
| Upper explosion limit | No information available. |
| Vapour pressure | 23 hPa at 20 °C |
| Relative vapour density | No information available. |
| Density | ~ 1,05 g/cm³ |
| Relative density | No information available. |
| Water solubility | soluble |
| Partition coefficient: n-octanol/water | No information available. |
| Auto-ignition temperature | No information available. |
| Decomposition temperature | No information available. |
| Viscosity, dynamic | No information available. |
| Explosive properties | Not classified as explosive. |
| Oxidizing properties | none |

### 9.2 Other information

| | |
|---|---|
| Information with regard to physical hazard classes: | |
| Corrosive to metals | category 1: corrosive to metals |
| **Other safety characteristics:** | |
| Miscibility | completely miscible with water |

## SECTION 10: Stability and reactivity

**10.1 Reactivity**
Substance or mixture corrosive to metals.

**10.2 Chemical stability**
The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**10.3 Possibility of hazardous reactions**
No known hazardous reactions.

**10.4 Conditions to avoid**
There are no specific conditions known which have to be avoided.

**10.5 Incompatible materials**
different metals

**10.6 Hazardous decomposition products**
in the event of fire: See section 5.

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## SECTION 11: Toxicological information

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
Test data are not available for the complete mixture.

**Classification procedure**
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

**Classification according to GHS (1272/2008/EC, CLP)**

**Acute toxicity**
Shall not be classified as acutely toxic.

**• Acute toxicity of components of the mixture**

| Name of substance | CAS No | Exposure route | Endpoint | Value | Species |
|---|---|---|---|---|---|
| ortho-Phosphoric acid | 7664-38-2 | oral | LD50 | >300 – 2.000 mg/kg | rat |
| ortho-Phosphoric acid | 7664-38-2 | oral | LD50 | 1.530 mg/kg | rat |
| ortho-Phosphoric acid | 7664-38-2 | dermal | LD50 | 2.740 mg/kg | rabbit |

| Acute toxicity estimate (ATE) of components of the mixture | | | |
|---|---|---|---|
| **Name of substance** | **CAS No** | **Exposure route** | **ATE** |
| ortho-Phosphoric acid | 7664-38-2 | oral | >300 mg/kg |

**Skin corrosion/irritation**
Shall not be classified as corrosive/irritant to skin.

**Serious eye damage/eye irritation**
Shall not be classified as seriously damaging to the eye or eye irritant.

**Respiratory or skin sensitisation**
Shall not be classified as a respiratory or skin sensitiser.

**Summary of evaluation of the CMR properties**
Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant

**• Specific target organ toxicity - single exposure**
Shall not be classified as a specific target organ toxicant (single exposure).

**• Specific target organ toxicity - repeated exposure**
Shall not be classified as a specific target organ toxicant (repeated exposure).

**Aspiration hazard**
Shall not be classified as presenting an aspiration hazard.

**Symptoms related to the physical, chemical and toxicological characteristics**

- **If swallowed**

data are not available

- **If in eyes**

slightly irritant but not relevant for classification

- **If inhaled**

data are not available

- **If on skin**

slightly irritant but not relevant for classification

- **Other information**

none

**11.2 Endocrine disrupting properties**

None of the ingredients are listed.

**11.3 Information on other hazards**

There is no additional information.

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## SECTION 12: Ecological information

**12.1 Toxicity**

Shall not be classified as hazardous to the aquatic environment.

**Aquatic toxicity (acute) of components of the mixture**.

| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
|---|---|---|---|---|---|
| ortho-Phosphoric acid | 7664-38-2 | EC50 | >100 mg/l | aquatic invertebrates | 48 h |
| ortho-Phosphoric acid | 7664-38-2 | ErC50 | >100 mg/l | algae | 72 h |

**Aquatic toxicity (chronic) of components of the mixture**

| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
|---|---|---|---|---|---|
| ortho-Phosphoric acid | 7664-38-2 | EC50 | >1.000 mg/l | microorganisms | 3 h |

**Biodegradation**

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

**12.2 Process of degradability**

Data are not available.

**12.3 Bioaccumulative potential**

Data are not available.

**12.4 Mobility in soil**

Data are not available

**12.5 Results of PBT and vPvB assessment**

Data are not available.

**12.6 Endocrine disrupting properties**

None of the ingredients are listed.

**12.7 Other adverse effects**

Data are not available.

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## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Sewage disposal-relevant information**
Do not empty into drains.
**Waste treatment of containers/packaging**
It is a dangerous waste; only packaging which are approved (e.g. acc. to ADR) may be used.

**13.2 Relevant provisions relating to waste**
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Waste catalogue ordinance (Germany).

**13.3 Remarks**
Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions

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## SECTION 14: Transport information

| | | |
|---|---|---|
| **14.1** | UN number | **UN 1805** |
| **14.2** | UN proper shipping name | **PHOSPHORIC ACID, SOLUTION** |
| | Hazardous ingredients | PHOSPHORIC ACID, SOLUTION |
| **14.3** | Transport hazard class(es) | |

| | |
|---|---|
| Class | 8 (corrosive substances) |
| **14.4** Packing group | III (substance presenting low danger) |
| **14.5** Environmental hazards | none (non-environmentally hazardous acc. to the dangerous goods regulations) |

**14.6 Special precautions for user**
Provisions for dangerous goods (ADR) should be complied within the premises.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**
The cargo is not intended to be carried in bulk.

**14.8 Information for each of the UN Model Regulations**

- **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**

| | |
|---|---|
| UN number | 1805 |
| Proper shipping name | PHOSPHORIC ACID, SOLUTION |
| Particulars in the transport document | UN1805, PHOSPHORIC ACID, SOLUTION, 8, III, (E) |
| Class | 8 |
| Classification code | C1 |
| Packing group | III |
| Danger label(s) | 8 |

| | |
|---|---|
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 5 L |
| Transport category (TC) | 3 |
| Tunnel restriction code (TRC) | E |
| Hazard identification No | 80 |
| **Emergency Action Code** | **2R** |

• **Transport of dangerous goods by air transport ICAO-TI und IATA-DGR:**

| | |
|---|---|
| UN number | 1805 |
| Proper shipping name | PHOSPHORIC ACID, SOLUTION |
| Particulars in the transport document | UN1805, PHOSPHORIC ACID, SOLUTION, 8, III |
| Class | 8 |
| Packing group | III |
| Danger label(s) | 8 |

| | |
|---|---|
| Special provisions (SP) | A3 |
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 1 L |

• **International Maritime Dangerous Goods Code (IMDG)**

| | |
|---|---|
| UN number | 1805 |
| Proper shipping name | PHOSPHORIC ACID, SOLUTION |
| Particulars in the shipper's declaration | UN1805, PHOSPHORIC ACID, SOLUTION, 8, III |
| Class | 8 |
| Marine pollutant | - |
| Packing group | III |
| Danger label(s) | 8 |

| | |
|---|---|
| Special provisions (SP) | 223 |
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 5 L |
| EmS | F-A, S-B |
| Stowage category | A |
| Segregation group | 1 - Acids |

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not relevant

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## SECTION 15: Regulatory information

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

**Relevant provisions of the European Union (EU)**

**Restrictions according to REACH, Annex XVII**

| Dangerous substances with restrictions (REACH, Annex XVII) | | | | |
|---|---|---|---|---|
| Name of substance | Name acc. to inventory | CAS No | Restriction | No |
| ortho-Phosphoric acid | substances in tattoo inks and permanent make-up | | R75 | 75 |

**Legend**

R75 1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such substances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or are present in the following circumstances:
(a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
(b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
(c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser category 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
(d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2, the substance is present in the mixture in a concentration equal to or greater than:
(i)0,1 % by weight, if the substance is used solely as a pH regulator;

(ii) 0,01 % by weight, in all other cases;
(e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
(f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight:
(i) "Rinse-off products";
(ii) "Not to be used in products applied on mucous membranes";
(iii) "Not to be used in eye products";
(g) in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column;
(h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concen- tration equal to or greater than the concentration limit specified for that substance in that Appendix.
2. For the purposes of this entry use of a mixture "for tattooing purposes" means injection or introduction of the mix- ture into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures com- monly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.
3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appendix 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (h) of paragraph 1 shall apply to that substance.
4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023: (a) Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8);
(b) Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).
5. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a sub- stance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of ap- plication of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, para- graph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.
6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made.
7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the mixture is marked with the following information:
(a) the statement "Mixture for use in tattoos or permanent make-up";
(b) a reference number to uniquely identify the batch;
(c) the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Im- purities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;
(d) the additional statement "pH regulator" for substances falling under point (d)(i) of paragraph 1;
(e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;
(f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;
(g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.
The information shall be clearly visible, easily legible and marked in a way that is indelible.
The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise.
Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use.
Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this para- graph.
Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.

**List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list**
None of the ingredients are listed. (Or Concentration of the substance in a mixture: <0.1 % Mass concentration)

- **Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)**
  None of the ingredients are listed.
- **Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)**
  None of the ingredients are listed.
- **Regulation 850/2004/EC on persistent organic pollutants (POP)**
  None of the ingredients are listed.
- **List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list**
  None of the ingredients are listed. (Or Concentration of the substance in a mixture: <0.1 % Mass concentration)

**Seveso Directive**

| 2012/18/EU (Seveso III) | | | |
|---|---|---|---|
| **No** | **Dangerous substance/hazard categories** | **Qualifying quantity (tonnes) for the application of lower and uppertier requirements** | **Notes** |
| | not assigned | | |

**Deco-Paint Directive)**
VOC content 0 %/ 0 g/l
**Industrial Emissions Directive (IED)**
VOC content 0 % / 0 g/l

**Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)**
None of the ingredients are listed.
**Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)**
None of the ingredients are listed.

**Water Framework Directive (WFD)**
none of the ingredients are listed

**Regulation on the marketing and use of explosives precursors**
none of the ingredients are listed

**Regulation on drug precursors**
none of the ingredients are listed

**National inventories**

| Country | National inventories | Status |
|---|---|---|
| AU | AICS | all ingredients are listed |
| CA | DSL | all ingredients are listed |
| CN | IECSC | all ingredients are listed |
| EU | ECSI | all ingredients are listed |
| EU | REACH Reg. | all ingredients are listed |
| JP | CSCL-ENCS | all ingredients are listed |
| KR | KECI | all ingredients are listed |
| MX | INSQ | all ingredients are listed |
| NZ | NZIoC | all ingredients are listed |
| PH | PICCS | all ingredients are listed |
| TR | CICR | not all ingredients are listed |
| TW | TCSI | all ingredients are listed |
| US | TSCA | all ingredients are listed |

**Legend**

| | |
|---|---|
| AICS | Australian Inventory of Chemical Substances |
| CICR | Chemical Inventory and Control Regulation |
| CSCL-ENCS | List of Existing and New Chemical Substances (CSCL-ENCS) |
| DSL | Domestic Substances List (DSL) |
| ECSI | EC Substance Inventory (EINECS, ELINCS, NLP) |
| IECSC | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ | National Inventory of Chemical Substances |
| KECI | Korea Existing Chemicals Inventory |
| NZIoC | New Zealand Inventory of Chemicals |
| PICCS | Philippine Inventory of Chemicals and Chemical Substances |
| REACH Reg. | REACH registered substances |
| TCSI | Taiwan Chemical Substance Inventory |
| TSCA | Toxic Substance Control Act |

### 15.2 Chemical Safety Assessment

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

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## SECTION 16: Other information

Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations |
|---|---|
| 2000/39/EC | Commission Directive establishing a first list of indicative occupational exposure limit values in imple- mentation of Council Directive 98/24/EC |
| Acute Tox. | Acute toxicity |
| ADN | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road) |
| ADR/RID/ADN | Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN) |
| ATE | Acute Toxicity Estimate |
| CAS | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances) |
| Ceiling-C | Ceiling value |
| CLP | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures |
| CMR | Carcinogenic, Mutagenic or toxic for Reproduction |
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| DMEL | Derived Minimal Effect Level |
| DNEL | Derived No-Effect Level |
| EC50 | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval |
| EC No | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |
| EH40/2005 | EH40/2005 Workplace exposure limits, Table 1: List of approved workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/) |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| EmS | Emergency Schedule |
| ErC50 | ≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control |
| Eye Dam. | seriously damaging to the eye |
| Eye Irrit. | irritant to the eye |

| Abbr. | Descriptions of used abbreviations |
|---|---|
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods Code |
| index No | the Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 |
| IOELV | indicative occupational exposure limit value |
| MARPOL | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant) |
| Met. Corr. | corrosive to metals |
| NLP | No-Longer Polymer |
| ppm | parts per million |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted No-Effect Concentration |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr. | corrosive to skin |
| Skin Irrit. | irritant to skin |
| STEL | short-term exposure limit |
| SVHC | Substance of Very High Concern |
| TWA | time-weighted average |
| VOC | Volatile Organic Compounds |
| vPvB | very Persistent and very Bioaccumulative |
| WEL | workplace exposure limit |

**Key literature references and sources for data**

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.
Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

**Classification procedure**

Physical and chemical properties. The classification is based on tested mixture.
Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text |
|---|---|
| H290 | may be corrosive to metals |
| H302 | Harmful if swallowed. |
| H314 | causes severe skin burns and eye damage |
| H318 | causes serious eye damage |

Training advice
Provide adequate information, instruction and training for operators.

**Disclaimer**
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 in- formation 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. It does not represent a guarantee of any properties of the product

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