

Safety Data Sheet

according to Regulation (EC) No 1907/2006

SG-FLASH

Revision date: 25.01.2017

Product code: 00310-0002

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P307+P311 IF exposed: Call a POISON CENTER or doctor/physician.
 P273 Avoid release to the environment.
 P405 Store locked up.

Special labelling of certain mixtures

EUH032 Contact with acids liberates very toxic gas.

2.3. Other hazards

Not known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Aqueous solution of potassium tetracyanoaurate, sulphuric acid and phosphoric acid

Hazardous components

| CAS No | Chemical name | | | Quantity |
|------------|---|--------------|------------------|----------|
| | EC No | Index No | REACH No | |
| | Classification according to Regulation (EC) No. 1272/2008 [CLP] | | | |
| 7664-93-9 | Sulphuric acid | | | < 1,5 % |
| | 231-639-5 | 016-020-00-8 | 01-2119458838-20 | |
| | Skin Corr. 1A; H314 | | | |
| 14263-59-3 | Potassium tetracyanoaurate(III) | | | 0,6 % |
| | 238-145-9 | | | |
| | Met. Corr. 1, Acute Tox. 2, Acute Tox. 2, Acute Tox. 2, Skin Irrit. 2, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H290 H300 H310 H330 H315 H318 H400 H410 EUH032 | | | |

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.
 Dem behandelnden Arzt dieses Sicherheitsdatenblatt vorzeigen.
 If you feel unwell, seek medical advice.

After inhalation

If patient is not breathing, apply artificial respiration.
 Move to fresh air in case of accidental inhalation of vapours or decomposition products.
 Seek medical treatment immediately.

After contact with skin

In case of contact with skin wash off immediately with plenty of water.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
 Summon a doctor immediately.

After ingestion

Immediately give plenty of water (if possible charcoal slurry).
 Summon a doctor immediately.

4.2. Most important symptoms and effects, both acute and delayed

Harmful if swallowed, in contact with skin or if inhaled.

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

Specific therapy / antidote treatment, as in case of cyanide.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Product does not burn, fire-extinguishing activities according to surrounding.

5.2. Special hazards arising from the substance or mixture

Fire may produce:
Hydrogen cyanide (HCN)

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

Additional information

Do not release chemically contaminated water into drains, soil or surface waters. Sufficient measures must be taken to retain water used for extinguishing.

Cool containers at risk with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

In case of vapour formation use respirator.

Avoid contact with skin, eyes and clothing.

Ensure adequate ventilation.

Use personal protective clothing.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/ground water.

6.3. Methods and material for containment and cleaning up

Shovel into suitable container for disposal.

Soak up with inert absorbent material (e.g. acid binder, universal binder).

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).

Information for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not breathe vapours.

Avoid contact with skin, eyes and clothing.

Care for suitable extraction / ventilation at processing machines.

Advice on protection against fire and explosion

No special protective measures against fire required.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry, cool and well-ventilated place.

Advice on storage compatibility

Do not store with acids.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Pre-goldplating for false teeth

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|-----------|--|-----|-------------------|-----------|---------------|--------|
| - | Cyanides, except HCN, cyanogen & cyanogen chloride (as CN) | - | 5 | | TWA (8 h) | WEL |
| | | - | - | | STEL (15 min) | WEL |
| 7664-93-9 | Sulphuric acid (mist) | - | 0.05 | | TWA (8 h) | WEL |
| | | - | - | | STEL (15 min) | WEL |

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

Do not inhale vapours.

Wash hands before breaks and at the end of workday.

When using do not eat, drink or smoke.

Take off immediately all contaminated clothing.

Eye/face protection

Tightly fitting goggles (EN 166).

Eye wash bottle with pure water (EN 15154).

Hand protection

Protective gloves resistant to chemicals made off butyl, minimum coat thickness 0.7 mm, permeation resistance approx. 480 minutes, i.e. protective glove <Butoject 898> made by www.kcl.de.

This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.

Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Skin protection

Acid-resistant protective clothing, rubber boots.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type B) (EN 14387).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------|-------------|
| Physical state: | Liquid |
| Colour: | Pink-violet |
| Odour: | Odourless |

Test method

pH-Value: 1

Changes in the physical state

Initial boiling point and boiling range: 100 °C

Flash point: n. a.

Lower explosion limits: n. a.

Upper explosion limits:

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| | |
|---------------------------------|-------------------------------|
| Ignition temperature: | n. a. |
| Density (at 20 °C): | 1,02 - 1,08 g/cm ³ |
| Water solubility: (at 20 °C) | Miscible |
| Solvent content: | 0 % |

9.2. Other information

No data available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

No decomposition if stored and applied as directed.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactions with acids.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Acids.

10.6. Hazardous decomposition products

Contact with acids liberates hydrogen cyanide (hydrocyanic acid).

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Harmful if swallowed, in contact with skin or if inhaled.

No toxicological data available.

LD50/oral/rat: > 10 mg/kg (Limit-test OECD 401)

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information on tests

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

Practical experience**Other observations**

Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.

Prolonged exposure causes local irritation of skin and mucous membranes, especially to the eyes.

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SECTION 12: Ecological information**12.1. Toxicity**

Ecological data are not available.
Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

12.6. Other adverse effects

Hazardous water pollutant.
A pH-change becomes possible in water.

Further information

Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Where possible recycling is preferred to disposal.
Can be landfilled after chemical and physical treatment, when in compliance with local regulations.

Waste disposal number of waste from residues/unused products

110199 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); wastes not otherwise specified

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information**Land transport (ADR/RID)**

| | |
|--|--|
| 14.1. UN number: | UN 1935 |
| 14.2. UN proper shipping name: | CYANIDE SOLUTION, N.O.S. (Potassium tetracyanoaurate(III)) |
| 14.3. Transport hazard class(es): | 6.1 |
| 14.4. Packing group: | III |
| Hazard label: | 6.1 |



Classification code: T4

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Limited quantity: 5 L / 30 kg
 Excepted quantity: E1
 Transport category: 2
 Hazard No: 60
 Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: UN 1935
14.2. UN proper shipping name: CYANIDE SOLUTION, N.O.S. (Potassium tetracyanoaurate(III))
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
 Hazard label: 6.1



Classification code: T4
 Limited quantity: 5 L / 30 kg
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 1935
14.2. UN proper shipping name: CYANIDE SOLUTION, N.O.S. (potassium tetracyanoaurate(III))
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
 Hazard label: 6.1



Marine pollutant: Yes
 Limited quantity: 5 L / 30 kg
 Excepted quantity: E1
 EmS: F-A, S-A

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1935
14.2. UN proper shipping name: CYANIDE SOLUTION, N.O.S. (potassium tetracyanoaurate(III))
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
 Hazard label: 6.1



Limited quantity Passenger: 2 L
 Passenger LQ: Y642
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 655
 IATA-max. quantity - Passenger: 60 L
 IATA-packing instructions - Cargo: 663
 IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards

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ENVIRONMENTALLY HAZARDOUS: yes

**14.6. Special precautions for user**

Handle in accordance with good industrial hygiene and safety practice.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

2004/42/EC (VOC): 0 %

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information**Abbreviations and acronyms**

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 IMDG = International Maritime Code for Dangerous Goods
 IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
 MARPOL = International Convention for the Prevention of Pollution from Ships
 IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
 CAS = Chemical Abstract Service
 EN = European norm
 ISO = International Organization for Standardization
 DIN = Deutsche Industrie Norm
 PBT = Persistent Bioaccumulative and Toxic
 vPvB = Very Persistent and very Bio-accumulative
 LD = Lethal dose
 LC = Lethal concentration
 EC = Effect concentration
 IC = Median immobilisation concentration or median inhibitory concentration

Relevant H and EUH statements (number and full text)

H290 May be corrosive to metals.
 H300 Fatal if swallowed.
 H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
 H310 Fatal in contact with skin.

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| | |
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| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H330 | Fatal if inhaled. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH032 | Contact with acids liberates very toxic gas. |

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)