

Safety data sheet

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



Colour Standard Pt/Co (Hazen) ROTI®Calipure 400 Hazen

article number: **1EEX**
Version: **1.0 en**

date of compilation: 2021-02-18

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

1.1 Product identifier

| | |
|---------------------------------|--|
| Identification of the substance | Colour Standard Pt/Co (Hazen) ROTI®Calipure 400 Hazen |
| Article number | 1EEX |
| Registration number (REACH) | not relevant (mixture) |

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

| | |
|---------------------------|---|
| Relevant identified uses: | Laboratory and analytical use Laboratory chemical |
| Uses advised against: | Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). |

1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG
Schoemperlenstr. 3-5
D-76185 Karlsruhe
Germany

Telephone: +49 (0) 721 - 56 06 0
Telefax: +49 (0) 721 - 56 06 149
e-mail: sicherheit@carlroth.de
Website: www.carlroth.de

Competent person responsible for the safety data sheet: :Department Health, Safety and Environment

e-mail (competent person): sicherheit@carlroth.de

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 | |

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

| Section | Hazard class | Cat-egory | Hazard class and category | Hazard statement |
|---------|---|-----------|---------------------------|------------------|
| 2.16 | Substance or mixture corrosive to metals | 1 | Met. Corr. 1 | H290 |
| 3.6 | Carcinogenicity | 1B | Carc. 1B | H350 |
| 4.1C | Hazardous to the aquatic environment - chronic hazard | 3 | Aquatic Chronic 3 | H412 |

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Supplemental hazard information

| Code | Supplemental hazard information |
|--------|--|
| EUH208 | contains Potassium hexachloroplatinate(IV). May produce an allergic reaction |

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

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

Signal word

Danger

Pictograms

GHS05, GHS08



Hazard statements

H290 May be corrosive to metals
H350 May cause cancer
H412 Harmful to aquatic life with long lasting effects

Precautionary statements

Precautionary statements - prevention

P280 Wear protective gloves/eye protection

Precautionary statements - response

P302+P352 IF ON SKIN: Wash with plenty of water

For professional users only

Supplemental hazard information

EUH208 Contains Potassium hexachloroplatinate(IV). May produce an allergic reaction.

Hazardous ingredients for labelling: Cobalt(II) chloride

Labelling of packages where the contents do not exceed 125 ml

Signal word: **Danger**

Symbol(s)



H350 May cause cancer.
H412 Harmful to aquatic life with long lasting effects.
P280 Wear protective gloves/eye protection.
EUH208 Contains Potassium hexachloroplatinate(IV). May produce an allergic reaction.
contains: Cobalt(II) chloride

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2.3 Other hazards

There is no additional information.

SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

| Name of substance | Identifier | Wt% | Classification acc. to GHS | Pictograms | Notes |
|-----------------------------------|---|-----------|--|------------|----------------------------|
| Hydrochloric acid % | CAS No 7647-01-0 EC No 231-595-7 Index No 017-002-01-X REACH Reg. No 01-2119484862- 27-xxxx | 3 - < 5 | Met. Corr. 1 / H290 Skin Corr. 1B / H314 Eye Dam. 1 / H318 STOT SE 3 / H335 | | B(a) GHS-HC IOELV |
| Potassium hexachloroplatinate(IV) | CAS No 16921-30-5 EC No 240-979-3 Index No 078-007-00-3 | 0,1 - < 1 | Met. Corr. 1 / H290 Acute Tox. 3 / H301 Eye Dam. 1 / H318 Resp. Sens. 1 / H334 Skin Sens. 1 / H317 | | GHS-HC |
| Cobalt(II) chloride | CAS No 7646-79-9 EC No 231-589-4 Index No 027-004-00-5 | < 0,1 | Acute Tox. 4 / H302 Resp. Sens. 1 / H334 Skin Sens. 1 / H317 Muta. 2 / H341 Carc. 1B / H350i Repr. 1B / H360F Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410 | | 1(a) GHS-HC IARC: 2B |

Notes

1(a): The concentration stated is the percentage by weight of the metallic element calculated with reference to the total weight of the mixture

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)

IARC: IARC group 2B: possibly carcinogenic to humans (International Agency for Research on Cancer)

2B:

IOELV: Substance with a community indicative occupational exposure limit value

| Name of substance | Identifier | Specific Conc. Limits | M-Factors | ATE | Exposure route |
|--------------------------|---|--|-----------|-----|----------------|
| Hydrochloric acid % | CAS No 7647-01-0 EC No 231-595-7 Index No 017-002-01-X | Met. Corr. 1; H290: C ≥ 0,1 % Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Dam. 1; H318: C ≥ 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 % STOT SE 3; H335: C ≥ 10 % | - | - | |

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| Name of substance | Identifier | Specific Conc. Limits | M-Factors | ATE | Exposure route |
|------------------------------------|--|-----------------------------|---|-----------|----------------|
| Potassium hexachloroplatinate(I V) | CAS No 16921-30-5 EC No 240-979-3 Index No 078-007-00-3 | - | - | 195 mg/kg | oral |
| Cobalt(II) chloride | CAS No 7646-79-9 EC No 231-589-4 Index No 027-004-00-5 | Carc. 1B; H350i: C ≥ 0,01 % | M-factor (acute) = 10.0 M-factor (chronic) = 10.0 | 418 mg/kg | oral |

For full text of abbreviations: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Take off 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.

Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

Following ingestion

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

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SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Non-combustible.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Advice on how to clean up a spill

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

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid exposure.

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

Keep container tightly closed.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice

Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

7.3 Specific end use(s)

No information available.

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 | Identifier | TWA [ppm] | TWA [mg/m ³] | STEL [ppm] | STEL [mg/m ³] | Ceiling-C [ppm] | Ceiling-C [mg/m ³] | Notation | Source |
|---------|-----------------------------|-----------|------------|-----------|--------------------------|------------|---------------------------|-----------------|--------------------------------|----------|------------|
| EU | hydrogen chloride | 7647-01-0 | IOELV | 5 | 8 | 10 | 15 | | | | 2000/39/EC |
| GB | halogeno-platinum compounds | | WEL | | 0,002 | | | | | Pt | EH40/2005 |
| GB | hydrogen chloride | 7647-01-0 | WEL | 1 | 2 | 5 | 8 | | | ga | EH40/2005 |

Notation

| | |
|-----------|--|
| Ceiling-C | Ceiling value is a limit value above which exposure should not occur |
| ga | As gases and aerosols |
| Pt | Calculated as Pt (platinum) |
| 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) |

Relevant DNELs of components of the mixture

| Name of substance | CAS No | End-point | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
|-------------------------|-----------|-----------|----------------------|------------------------------------|-------------------|-------------------------|
| Hydrochloric acid ... % | 7647-01-0 | DNEL | 8 mg/m ³ | human, inhalatory | worker (industry) | chronic - local effects |
| Hydrochloric acid ... % | 7647-01-0 | DNEL | 15 mg/m ³ | human, inhalatory | worker (industry) | acute - local effects |

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| Relevant DNELs of components of the mixture | | | | | | |
|---|-----------|-----------|------------------------|------------------------------------|-------------------|-------------------------|
| Name of substance | CAS No | End-point | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
| Cobalt(II) chloride | 7646-79-9 | DNEL | 88,1 µg/m ³ | human, inhalatory | worker (industry) | chronic - local effects |

| Relevant PNECs of components of the mixture | | | | | | |
|---|------------|-----------|-----------------|-----------------------|------------------------------|------------------------------|
| Name of substance | CAS No | End-point | Threshold level | Organism | Environmental compartment | Exposure time |
| Potassium hexachloroplatinate(IV) | 16921-30-5 | PNEC | 0,14 µg/l | aquatic organisms | freshwater | short-term (single instance) |
| Potassium hexachloroplatinate(IV) | 16921-30-5 | PNEC | 0,017 µg/l | aquatic organisms | marine water | short-term (single instance) |
| Potassium hexachloroplatinate(IV) | 16921-30-5 | PNEC | 0,125 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| Potassium hexachloroplatinate(IV) | 16921-30-5 | PNEC | 0,261 mg/kg | aquatic organisms | freshwater sediment | short-term (single instance) |
| Potassium hexachloroplatinate(IV) | 16921-30-5 | PNEC | 0,026 mg/kg | aquatic organisms | marine sediment | short-term (single instance) |
| Potassium hexachloroplatinate(IV) | 16921-30-5 | PNEC | 0,005 mg/kg | terrestrial organisms | soil | short-term (single instance) |
| Cobalt(II) chloride | 7646-79-9 | PNEC | 0,62 µg/l | aquatic organisms | freshwater | short-term (single instance) |
| Cobalt(II) chloride | 7646-79-9 | PNEC | 2,36 µg/l | aquatic organisms | marine water | short-term (single instance) |
| Cobalt(II) chloride | 7646-79-9 | PNEC | 0,37 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| Cobalt(II) chloride | 7646-79-9 | PNEC | 53,8 mg/kg | aquatic organisms | freshwater sediment | short-term (single instance) |
| Cobalt(II) chloride | 7646-79-9 | PNEC | 69,8 mg/kg | aquatic organisms | marine sediment | short-term (single instance) |
| Cobalt(II) chloride | 7646-79-9 | PNEC | 10,9 mg/kg | terrestrial organisms | soil | short-term (single instance) |

8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection.

Skin protection



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• 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. P2 (filters at least 94 % of airborne particles, colour code: White).

Environmental exposure controls

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|-----------------------------|
| Physical state | liquid |
| Colour | acc. to product description |
| Odour | characteristic |
| Melting point/freezing point | not determined |
| Boiling point or initial boiling point and boiling range | 100 °C |
| Flammability | non-combustible |
| Lower and upper explosion limit | not determined |
| Flash point | not determined |
| Auto-ignition temperature | not determined |
| Decomposition temperature | not relevant |
| pH (value) | not determined (acidic) |
| Kinematic viscosity | not determined |

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Solubility(ies)

Water solubility miscible in any proportion

Partition coefficient

Partition coefficient n-octanol/water (log value): not relevant (inorganic)

Vapour pressure 23 hPa at 20 °C

Density 1,003 g/cm³ at 20 °C

Particle characteristics no data available

Other safety parameters

Oxidising 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

Violent reaction with: Alkali metals, Strong alkali

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

Hazardous combustion products: 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 estimate (ATE) of components of the mixture | | | |
|--|------------|----------------|-----------|
| Name of substance | CAS No | Exposure route | ATE |
| Potassium hexachloroplatinate(IV) | 16921-30-5 | oral | 195 mg/kg |
| Cobalt(II) chloride | 7646-79-9 | oral | 418 mg/kg |

| Acute toxicity of components of the mixture | | | | | |
|---|------------|----------------|----------|-----------|---------|
| Name of substance | CAS No | Exposure route | Endpoint | Value | Species |
| Potassium hexachloroplatinate(IV) | 16921-30-5 | oral | LD50 | 195 mg/kg | rat |
| Cobalt(II) chloride | 7646-79-9 | oral | LD50 | 418 mg/kg | rat |

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

Contains Potassium hexachloroplatinate(IV). May produce an allergic reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

May cause cancer.

Reproductive toxicity

Shall not be classified 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.

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Symptoms related to the physical, chemical and toxicological characteristics

- **If swallowed**

gastrointestinal complaints

- **If in eyes**

Data are not available.

- **If inhaled**

Data are not available.

- **If on skin**

slightly irritant but not relevant for classification

Other information

none

SECTION 12: Ecological information

12.1 Toxicity

Harmful to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture

| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
|-----------------------------------|------------|----------|-------------|-----------------------|---------------|
| Potassium hexachloroplatinate(IV) | 16921-30-5 | LC50 | 25,78 mg/l | fish | 96 h |
| Potassium hexachloroplatinate(IV) | 16921-30-5 | ErC50 | 2,4 mg/l | algae | 72 h |
| Cobalt(II) chloride | 7646-79-9 | LC50 | 1,512 mg/l | fish | 96 h |
| Cobalt(II) chloride | 7646-79-9 | EC50 | 2.618 µg/l | aquatic invertebrates | 48 h |
| Cobalt(II) chloride | 7646-79-9 | ErC50 | 71.314 µg/l | algae | 96 h |

Aquatic toxicity (chronic) of components of the mixture

| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
|-----------------------------------|------------|----------|-----------|-----------------------|---------------|
| Potassium hexachloroplatinate(IV) | 16921-30-5 | EC50 | 103 mg/l | microorganisms | 3 h |
| Cobalt(II) chloride | 7646-79-9 | EC50 | 82,2 µg/l | aquatic invertebrates | 21 d |

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.

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| Bioaccumulative potential of components of the mixture | | | | |
|--|-----------|-----|---------|----------|
| Name of substance | CAS No | BCF | Log KOW | BOD5/COD |
| Cobalt(II) chloride | 7646-79-9 | 23 | | |

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.

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. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings 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.

SECTION 14: Transport information

14.1 UN number or ID number

| | |
|-------------|---------|
| ADR/RID/ADN | UN 3264 |
| IMDG-Code | UN 3264 |
| ICAO-TI | UN 3264 |

14.2 UN proper shipping name

| | |
|-------------|---|
| ADR/RID/ADN | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. |
| IMDG-Code | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. |
| ICAO-TI | Corrosive liquid, acidic, inorganic, n.o.s. |

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| | |
|--|---|
| Technical name (hazardous ingredients) | Hydrochloric acid ... %, Potassium hexachloroplatinate(IV) |
| 14.3 Transport hazard class(es) | |
| ADR/RID/ADN | 8 |
| IMDG-Code | 8 |
| ICAO-TI | 8 |
| 14.4 Packing group | |
| ADR/RID/ADN | III |
| IMDG-Code | III |
| ICAO-TI | III |
| 14.5 Environmental hazards | 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 Maritime transport in bulk according to IMO instruments | |
| The cargo is not intended to be carried in bulk. | |

Information for each of the UN Model Regulations

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

| | |
|---|-----|
| Classification code | C1 |
| Danger label(s) | 8 |
|  | |
| Special provisions (SP) | 274 |
| 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 | 2X |

International Maritime Dangerous Goods Code (IMDG) - Additional information

| | |
|---|----------|
| Marine pollutant | - |
| Danger label(s) | 8 |
|  | |
| Special provisions (SP) | 223, 274 |
| Excepted quantities (EQ) | E1 |

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| | |
|--------------------------|-----------|
| Limited quantities (LQ) | 5 L |
| EmS | F-A, S-B |
| Stowage category | A |
| Segregation group | 1 - Acids |

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Danger label(s) 8



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

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 |
| Colour Standard Pt/Co (Hazen) | this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC | | R3 | 3 |
| Cobalt(II) chloride | carcinogenic | | R28-30 | 28 |
| Cobalt(II) chloride | toxic for reproduction | | R28-30 | 30 |

Legend

- R28-30 1. Shall not be placed on the market, or used,
- as substances,
- as constituents of other substances, or,
- in mixtures,
for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than:
- either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or,
- the relevant concentration specified in Directive 1999/45/EC where no specific concentration limit is set out in Part 3 of Annex VI to Regulation (EC) No 1272/2008.
Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly as follows:
'Restricted to professional users'.
2. By way of derogation, paragraph 1 shall not apply to:
(a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC;
(b) cosmetic products as defined by Directive 76/768/EEC;
(c) the following fuels and oil products:
- motor fuels which are covered by Directive 98/70/EC,
- mineral oil products intended for use as fuel in mobile or fixed combustion plants,
- fuels sold in closed systems (e.g. liquid gas bottles);
(d) artists' paints covered by Directive 1999/45/EC;
(e) the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix 11, column 2. Where a date is specified in column 2 of Appendix 11, the derogation shall apply until the said date.

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Legend

- R3
1. Shall not be used in:
 - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
 - tricks and jokes,
 - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
 2. Articles not complying with paragraph 1 shall not be placed on the market.
 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
 - can be used as fuel in decorative oil lamps for supply to the general public, and,
 - present an aspiration hazard and are labelled with R65 or H304,
 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
 - (a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage';
 - (b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
 - (c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.

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 upper-tier requirements | Notes |
| | not assigned | | |

Deco-Paint Directive (2004/42/EC)

| | |
|-------------|--------------|
| VOC content | 0 % 0 g/l |
|-------------|--------------|

Directive on industrial emissions (VOCs, 2010/75/EU)

| | |
|---|-------|
| VOC content | 0 % |
| VOC content Water content was discounted | 0 g/l |

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

none of the ingredients are listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

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Water Framework Directive (WFD)

| List of pollutants (WFD) | | | | |
|-----------------------------------|---|--------|-----------|---------|
| Name of substance | Name acc. to inventory | CAS No | Listed in | Remarks |
| Potassium hexachloroplatinate(IV) | Metals and their compounds | | A) | |
| Cobalt(II) chloride | Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment | | A) | |
| Cobalt(II) chloride | Metals and their compounds | | A) | |

Legend

A) Indicative list of the main pollutants

Regulation 98/2013/EU on the marketing and use of explosives precursors

none of the ingredients are listed

Regulation 111/2005/EC laying down rules for the monitoring of trade between the Community and third countries in drug precursors

| Name of substance | CAS No | Classification | CN Code | Threshold level |
|--------------------------|-----------|----------------|------------|-----------------|
| Hydrochloric acid % | 7647-01-0 | Category 3 | 2806 10 00 | |

Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

National inventories

| Country | Inventory | 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 | not 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 |

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| Country | Inventory | Status |
|---------|-----------|----------------------------|
| 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) |
| EC SI | 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 (PICCS) |
| 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.

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 implementation 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 | European Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN) |
| Aquatic Acute | Hazardous to the aquatic environment - acute hazard |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| BOD | Biochemical Oxygen Demand |
| Carc. | Carcinogenicity |
| 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 |
| CN Code | Combined Nomenclature |
| COD | Chemical oxygen demand |
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| 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 |

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| Abbr. | Descriptions of used abbreviations |
|-------------|--|
| 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 (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 |
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |
| ICAO | International Civil Aviation Organization |
| ICAO-TI | Technical instructions for the safe transport of dangerous goods by air |
| IMDG | International Maritime Dangerous Goods Code |
| IMDG-Code | 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 |
| LC50 | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval |
| LD50 | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval |
| log KOW | n-Octanol/water |
| Met. Corr. | Substance or mixture corrosive to metals |
| M-factor | Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present |
| Muta. | Germ cell mutagenicity |
| NLP | No-Longer Polymer |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted No-Effect Concentration |
| ppm | Parts per million |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| Repr. | Reproductive toxicity |
| Resp. Sens. | Respiratory sensitisation |

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| Abbr. | Descriptions of used abbreviations |
|-------------|---|
| 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 |
| Skin Sens. | Skin sensitisation |
| STEL | Short-term exposure limit |
| STOT SE | Specific target organ toxicity - single exposure |
| 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. |
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H341 | Suspected of causing genetic defects. |
| H350 | May cause cancer. |
| H350i | May cause cancer by inhalation. |
| H360F | May damage fertility. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

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| Code | Text |
|------|--|
| H412 | Harmful to aquatic life with long lasting effects. |

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.