

Revision: 2.0  
(Replaces revision 1.1 of 16 April 2021)Revision date:  
Date printed:16 April 2021  
12 August 2023**Section 1. Identification****1.1 Product Identifier** 0183Product Name COBALT (II) CHLORIDE 6H<sub>2</sub>O pure

CAS Number 7791-13-1

REACH Registration No 01-2119517584-37-XXXX

Molecular Formula  $\text{CoCl}_2 \cdot 6\text{H}_2\text{O} = 237.93$ **1.2 Relevant identified uses of the substance or mixture & uses advised against**

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

**1.3 Supplier** Vickers Laboratories LtdGrangefield Industrial Estate  
Richardshaw Road  
Pudsey  
West Yorkshire  
LS28 6QW  
UNITED KINGDOMPhone 44 0113 2362811  
Fax +44(0)113 2362703  
Email [safety@viclabs.co.uk](mailto:safety@viclabs.co.uk)  
Website [www.viclabs.co.uk](http://www.viclabs.co.uk)**1.4 Emergency Telephone** (08:00-16:30) +44(0) 113 2362811  
(24hr) 112  
(Have this document to hand)**Section 2. Hazards Identification****2.1 Classification of the substance or mixture****Classification according to regulation 1272/2008/EC**

Acute toxicity, category 4 (oral)

Serious eye damage/irritation, category 1

Respiratory sensitization, category 1

Skin sensitization, category 1

Germ cell mutagenicity, category 2

Carcinogenicity, category 1B

Reproductive toxicity, category 1B

Hazard to aquatic environment, category 1

Hazard to aquatic environment, category 1

H302: Harmful if swallowed.

H318: Causes serious eye damage.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317: May cause an allergic skin reaction.

H341: Suspected of causing genetic defects.

H350: May cause cancer.

H360: May damage fertility or the unborn child.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

**2.2 Label elements****Labelling according to regulation 1272/2008/EC**

Signal word Danger

Hazard Pictograms



**Hazard Statements** Harmful if swallowed. Causes serious eye damage. May cause cancer. Suspected of causing genetic defects. May damage fertility or the unborn child. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Very toxic to aquatic life with long lasting effects.

**Precautionary Statements** Obtain special instructions before use. Avoid release to the environment. Wear protective gloves / protective clothing / eye protection / face protection. IF exposed or concerned: Get medical advice/attention.

## Section 3. Composition

### 3.1 Substances

| Component          | CAS No.   | EEC No.   | REACH No.             | Conc w/w | CLP Classification (1272/2008/CE)                                                                                          |
|--------------------|-----------|-----------|-----------------------|----------|----------------------------------------------------------------------------------------------------------------------------|
| Cobaltous chloride | 7791-13-1 | 231-589-4 | 01-2119517584-37-XXXX | <100%    | Acute Tox. 4 (O), Eye Dam. 1, Resp. Sens. 1, Skin Sens. 1, Muta. 2, Carc. 1B, Repr. 1B, Aquatic Acute 1, Aquatic Chronic 1 |

## Section 4. First Aid

### 4.1 Description of first aid measures

|                                      |                                                                                                                                          |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Eyes                                 | Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION. |
| Skin                                 | Thoroughly wash off skin with soap and water. Remove contaminated clothing immediately and wash before re-use.                           |
| Inhalation                           | Remove from exposure.                                                                                                                    |
| Ingestion                            | Wash out the patients mouth thoroughly with water. In severe cases or if exposure has been great, OBTAIN MEDICAL ATTENTION.              |
| Personal protection for first aiders | Wear protective gloves / eye protection.                                                                                                 |

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

No further relevant information available.

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

No further relevant information available.

## Section 5. Fire Fighting

### 5.1 Extinguishing media

|                     |                                                                          |
|---------------------|--------------------------------------------------------------------------|
| Extinguishing Media | Consider what other flammable materials are present and act accordingly. |
| Unsuitable Media    | Nothing specified.                                                       |

### 5.2 Special hazards arising from the substance or mixture

|         |                                               |
|---------|-----------------------------------------------|
| Hazards | May evolve toxic fumes if involved in a fire. |
|---------|-----------------------------------------------|

### 5.3 Advice for firefighters

|                         |                                                                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advice for firefighters | Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Section 6. Accidental Release Measures

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

|                     |                                                                                                      |
|---------------------|------------------------------------------------------------------------------------------------------|
| Personal Protection | Avoid breathing dust-wear respiratory protective equipment. Do not allow other people to enter area. |
|---------------------|------------------------------------------------------------------------------------------------------|

## 6.2 Environmental precautions

Environmental Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

## 6.3 Methods and material for containment and cleaning up

Major Spillage Vacuum up into container for removal. Carefully remove material from vacuum cleaner and transfer to sealable container for disposal. Carry out this operation under fume extraction.

Minor Spillage Vacuum up into container for removal. Carefully remove material from vacuum cleaner and transfer to sealable container for disposal. Carry out this operation under fume extraction.

## 6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

# Section 7. Storage & Handling

## 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.  
Ensure Local Exhaust Ventilation maintains dust concentrations to a minimum.

## 7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage .

## 7.3 Specific end use(s)

See section 1.2.

# Section 8. Workplace Exposure & Personal Protection

## 8.1 Control parameters

| Component          | CAS No    | Concentration | Workplace Exposure Limits |                         |
|--------------------|-----------|---------------|---------------------------|-------------------------|
|                    |           |               | Long Term (8hr TWA)       | Short Term 15min period |
| Cobaltous chloride | 7791-13-1 | <100%         | -                         | 0.1 ppm                 |

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

## 8.2 Exposure controls

Respiratory Protection If process creates significant amounts of dust use L.E.V. or wear suitable dust mask.

Hand Protection Wear gloves.

Eye Protection Use tightly fitting chemical splash proof glasses or goggles.

Skin Protection Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.

Special Hazards No special precautions required.

# Section 9. Physical & Chemical Properties

## 9.1 Information on basic physical and chemical properties

Appearance Pink/purple crystalline solid.

Odour No specific odour.

pH 5 @ 20°C

Boiling Point 1049 °C

Melting Point 735 °C

Flash Point Not applicable

Upper Flammable Limit Not applicable

Lower Flammable Limit Not applicable

Auto Ignition Not applicable

Explosive Properties No.

Oxidising Properties No.

Vapour Pressure Not applicable

|                  |                                        |
|------------------|----------------------------------------|
| Relative Density | 3.3600                                 |
| Water Solubility | 585.8 g/L Moderately soluble in water. |

## 9.2 Other information

No data available.

## Section 10. Stability & Reactivity

|                                         |                                                                       |
|-----------------------------------------|-----------------------------------------------------------------------|
| 10.1 Reactivity                         | No data available.                                                    |
| 10.2 Chemical Stability                 | Stable under normal conditions                                        |
| 10.3 Possibility of hazardous reactions | No data available.                                                    |
| 10.4 Conditions to Avoid                | No specific conditions.                                               |
| 10.5 Incompatible Materials             | Strong oxidising agents. Alkali metals.                               |
| 10.6 Hazardous Decomposition Products   | Will decompose to emit toxic and irritant fumes of hydrogen chloride. |

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

|                      |                                                                                                                                |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Eyes                 | Contact with the solid or dust will be irritating to the eyes.                                                                 |
| Skin                 | Contact with the solid or dust will be irritating to the skin.                                                                 |
| LD50 Skin            | >2000 mg/Kg Rat                                                                                                                |
| Ingestion            | Harmful if swallowed.                                                                                                          |
| LD50 Oral            | 537 mg/Kg Rat                                                                                                                  |
| Inhalation           | Harmful by inhalation. Contact with the solid or dust will produce irritation of the eyes, nose, throat and respiratory tract. |
| LD50 Inhalation      | Not available                                                                                                                  |
| TCLo                 | Not available                                                                                                                  |
| Carcinogenicity      | Carcinogenicity, category 1B.                                                                                                  |
| Mutagenicity         | No information is available.                                                                                                   |
| Reproductive Effects | No information is available.                                                                                                   |

## Section 12. Ecological

|                                       |                                                                                              |
|---------------------------------------|----------------------------------------------------------------------------------------------|
| 12.1 Toxicity                         | Toxic to aquatic species and may cause long term adverse effects in the aquatic environment. |
| LC50 Algal                            | 24.1 µg/L Algae                                                                              |
| LC50 Crustacea                        | 0.61 mg/L Daphnia magna                                                                      |
| LC50 Fish                             | 1.5 mg/L Fathead Minnow                                                                      |
| 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 & vPvB assessment | Assessment not required.                                                                     |
| 12.6 Other adverse effects            | None known at present.                                                                       |

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

|                  |                                          |
|------------------|------------------------------------------|
| Disposal Methods | Dispose of to a licensed land fill site. |
|------------------|------------------------------------------|

## Section 14. Transport Information

|                                   |                                                  |
|-----------------------------------|--------------------------------------------------|
| 14.1 UN Number                    | 3288                                             |
| 14.2 Proper Shipping Name         | Toxic solid, inorganic, N.O.S. (Cobalt Chloride) |
| 14.3 Transport classes            |                                                  |
| UN classification                 | 6.1                                              |
| Subsidiary hazard(s)              | None                                             |
| Transport category                | 2                                                |
| ADR Hazard ID                     | 60                                               |
| Tunnel Restriction Code           | E                                                |
| 14.4 Packing Group                | III                                              |
| 14.5 Environment hazards          | See section 12.                                  |
| 14.6 Special precautions for user | No special precautions required.                 |
| 14.7 Transport in bulk            | Not transported in bulk.                         |



## Section 15. Regulatory Information

### 15.1 Safety, health and environment regulations specific for substance/mixture.

#### Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Acute toxicity, category 4 (oral); Serious eye damage/irritation, category 1; Respiratory sensitization, category 1; Skin sensitization, category 1; Germ cell mutagenicity, category 2; Carcinogenicity, category 1B; Reproductive toxicity, category 1B; Hazard to aquatic environment, category 1; Hazard to aquatic environment, category 1

Signal word Danger

Hazard Pictograms



Hazard Statements H302, H318, H350, H341, H360, H317, H334, H410  
Harmful if swallowed. Causes serious eye damage. May cause cancer. Suspected of causing genetic defects. May damage fertility or the unborn child. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Very toxic to aquatic life with long lasting effects.

Precautionary Statements P201, P273, P280, P308+P313  
Obtain special instructions before use. Avoid release to the environment. Wear protective gloves / protective clothing / eye protection / face protection. IF exposed or concerned: Get medical advice/attention.

### 15.2 Chemical safety assessment

Assessment not required.

## Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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