according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



date of compilation: 2015-08-25

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#### Cobalt(II) chloride hexahydrate ≥98 %, extra pure

article number: **7095** Version: **6.0 en** Replaces version of: 2022-12-13 Version: (5)

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

#### 1.1 Product identifier

Identification of the substance	<b>Cobalt(II) chloride hexahydrate</b> ≥98 %, extra pure
Article number	7095
Registration number (REACH)	01-2119517584-37-xxxx
EC number	616-574-6
CAS number	7791-13-1

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

Laboratory chemical Laboratory and analytical use

Uses advised against:

Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). Food, drink and animal feedingstuffs.

#### **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 Department Health, Safety and Environment sheet:

#### e-mail (competent person):

#### sicherheit@carlroth.de

#### 1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Centre Beaumont Hospital	Beaumont Road	Dublin 9	+353 1 809 2166	https:// www.poisons.ie/

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# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

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

Section	Hazard class		Hazard class and category	Hazard statement
3.10	Acute toxicity (oral)	4	Acute Tox. 4	H302
3.4R	Respiratory sensitisation	1	Resp. Sens. 1	H334
3.4S	Skin sensitisation	1	Skin Sens. 1	H317
3.5	Germ cell mutagenicity	2	Muta. 2	H341
3.6	Carcinogenicity	1B	Carc. 1B	H350i
3.7	Reproductive toxicity	1B	Repr. 1B	H360F
4.1A	Hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400
4.1C	Hazardous to the aquatic environment - chronic hazard	1	Aquatic Chronic 1	H410

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** 



#### **Hazard statements**

H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341	Suspected of causing genetic defects
H350i	May cause cancer by inhalation
H360F	May damage fertility
H410	Very toxic to aquatic life with long lasting effects

#### **Precautionary statements**

#### **Precautionary statements - prevention**

P201	Obtain special instructions before use
P260	Do not breathe dust
P273	Avoid release to the environment
P280	Wear protective gloves/eye protection/face protection

#### **Precautionary statements - response**

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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P308+P313 IF exposed or concerned: Get medical advice/attention

For professional users only

#### Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger



H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H360F	May damage fertility.
P201	Obtain special instructions before use.
P280	Wear protective gloves/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.

#### 2.3 Other hazards

#### Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

#### **Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of  $\ge 0,1\%$ .

# **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Name of substance	Cobalt(II) chloride hexahydrate
Molecular formula	$CoCl_2 \cdot 6 H_2O$
Molar mass	237,9 <sup>g</sup> / <sub>mol</sub>
REACH Reg. No	01-2119517584-37-xxxx
CAS No	7791-13-1
EC No	616-574-6

#### Substance of Very High Concern (SVHC)

Name of substance	CAS No	EC No	Listed in	Remarks		
Cobalt(II) chloride hexahydrate	7646-79-9	231-589-4	Candidate list	Carc. A57a Repr. A57c		

#### Legend

Candidate Substances meeting the criteria referred to in Article 57 and for eventual inclusion in Annex XIV list

Carc. A57a Carcinogenic (article 57a) Repr. A57c Toxic for reproduction (article 57c)

Substance, Specific Conc. Limits, M-factors, ATE						
Specific Conc. Limits         M-Factors         ATE         Exposure route						
Carc. 1B; H350i: C ≥ 0,01 %	M-factor (acute) = 10 M-factor (chronic) = 10	418 <sup>mg</sup> / <sub>kg</sub>	oral			

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

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# **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. After contact with skin, wash immediately with plenty of water. In case of skin reactions, consult a physician.

#### Following eye contact

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

#### **Following ingestion**

Rinse mouth with water (only if the person is conscious). In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Call a doctor.

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

Vomiting, Allergic reactions, Cough, Dyspnoea

# **4.3 Indication of any immediate medical attention and special treatment needed** none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media



#### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings! water, foam, alcohol resistant foam, dry extinguishing powder, ABC-powder

#### Unsuitable extinguishing media

water jet

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

Non-combustible.

#### Hazardous combustion products

In case of fire may be liberated: Hydrogen chloride (HCl)

#### 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.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

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# **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures



#### For non-emergency personnel

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Do not breathe dust.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

#### 6.3 Methods and material for containment and cleaning up

#### Advice on how to contain a spill

Covering of drains. Take up mechanically.

#### Advice on how to clean up a spill

Take up mechanically. Control of dust.

#### Other information relating to spills and releases

Place in appropriate containers for disposal.

#### 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.

# **SECTION 7: Handling and storage**

#### 7.1 Precautions for safe handling

Use extractor hood (laboratory). Provision of sufficient ventilation. Avoid exposure. Avoid dust formation.

#### Measures to protect the environment

Avoid release to the environment.

#### 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

Store in a dry place. Hygroscopic solid.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Protect against external exposure, such as

humidity

#### Consideration of other advice:

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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#### 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)**

Coun try	Name of agent	CAS No	Identifi- er	TWA [mg/ m³]	STEL [mg/ m³]	Ceil- ing-C [mg/ m³]	Nota- tion	Source
IE	cobalt compounds		OELV	0,02			Со	S.I. No. 619 of 2001

Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur

Calculated as Co (cobalt)

Co 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)

#### Human health values

#### **Relevant DNELs and other threshold levels** Endpoint Threshold **Protection goal**, **Used in Exposure time** level route of exposure DNEL 88,1 µg/m<sup>3</sup> human, inhalatory worker (industry) chronic - local effects

#### **Environmental values**

Relevant PNECs and other threshold levels					
End- point	Threshold level	Organism	Environmental com- partment	Exposure time	
PNEC	0,62 <sup>µg</sup> / <sub>l</sub>	aquatic organisms	freshwater	short-term (single instance)	
PNEC	2,36 <sup>µg</sup> / <sub>l</sub>	aquatic organisms	marine water	short-term (single instance)	
PNEC	0,37 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)	
PNEC	53,8 <sup>mg</sup> / <sub>kg</sub>	aquatic organisms	freshwater sediment	short-term (single instance)	
PNEC	69,8 <sup>mg</sup> / <sub>kg</sub>	aquatic organisms	marine sediment	short-term (single instance)	
PNEC	10,9 <sup>mg</sup> / <sub>kg</sub>	terrestrial organisms	soil	short-term (single instance)	

#### 8.2 **Exposure controls**

#### Individual protection measures (personal protective equipment)

#### Eye/face protection



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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 consider-able 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: Dust formation. Particulate filter device (EN 143). 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	solid
Form	crystalline
Colour	pink
Odour	odourless
Melting point/freezing point	>86 °C (Release of crystal water)
Boiling point or initial boiling point and boiling range	1.049 °C at 101,3 kPa (anhydrous) (ECHA)
Flammability	non-combustible

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	Lower and upper explosion limit	not determined
	Flash point	not applicable
	Auto-ignition temperature	not determined
	Decomposition temperature	not relevant
	pH (value)	4,9 (in aqueous solution: 50 <sup>g</sup> / <sub>l</sub> , 25 °C)
	Kinematic viscosity	not relevant
	Solubility(ies)	
	Water solubility	970 <sup>g</sup> / <sub>l</sub> at 20 °C
	Partition coefficient	
	Partition coefficient n-octanol/water (log value):	not relevant (inorganic)
	Vapour pressure	not determined
	Density and/or relative density	
	Density	1,92 <sup>g</sup> / <sub>cm³</sub> at 25 °C
	Relative vapour density	Information on this property is not available.
	Bulk density	~1.250 <sup>kg</sup> / <sub>m³</sub>
	Particle characteristics	No data available.
	Other safety parameters	
	Oxidising properties	none
9.2	Other information	
	Information with regard to physical hazard classes:	hazard classes acc. to GHS (physical hazards): not relevant
	Other safety characteristics:	There is no additional information.

# **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

### 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

#### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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- **10.5** Incompatible materials There is no additional information.
- **10.6 Hazardous decomposition products** Hazardous combustion products: see section 5.

# **SECTION 11: Toxicological information**

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

#### Acute toxicity

Harmful if swallowed.

Acute toxicity	Acute toxicity				
Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	418 <sup>mg</sup> / <sub>kg</sub>	rat	anhydrous	ECHA
dermal	LD50	>2.000 <sup>mg</sup> / <sub>kg</sub>	rat	anhydrous	TOXNET

#### 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

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

### Germ cell mutagenicity

Suspected of causing genetic defects.

#### Carcinogenicity

May cause cancer by inhalation.

#### **Reproductive toxicity**

May damage fertility.

#### 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

Data are not available.

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#### • If inhaled

May produce an allergic reaction, cough, Dyspnoea

#### • If on skin

May produce an allergic reaction, pruritis, localised redness

#### • Other information

none

#### 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\ge 0,1\%$ .

#### 11.3 Information on other hazards

There is no additional information.

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute)					
Endpoint	Value	Species	Source	Exposure time	
LC50	1.866 <sup>µg</sup> / <sub>l</sub>	fish	ECHA	96 h	
EC50	241 <sup>µg</sup> / <sub>l</sub>	aquatic invertebrates	ECHA	48 h	
ErC50	95,2 <sup>µg</sup> / <sub>l</sub>	algae	ECHA	72 h	

#### Aquatic toxicity (chronic)

Endpoint	Value	Species	Species Source Ex	
EC50	82,2 <sup>µg</sup> / <sub>l</sub>	aquatic invertebrates	ECHA	21 d
EC50	24,1 <sup>µg</sup> / <sub>l</sub>	algae	ECHA	7 d

#### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

BCF	23 (ECHA)
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#### 12.4 Mobility in soil

Data are not available.

#### 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

#### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\ge 0,1\%$ .

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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#### 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. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

#### 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.

#### Properties of waste which render it hazardous

- HP 6 acute toxicity
- HP 7 carcinogenic
- HP 10 toxic for reproduction HP 11 mutagenic
- HP 13 sensitising HP 14 ecotoxic

#### 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. Non-contaminated packages may be recycled.

# **SECTION 14: Transport information** 14.1 UN number or ID number

	ADRRID	UN 3077
	IMDG-Code	UN 3077
	ICAO-TI	UN 3077
14.2	UN proper shipping name	
	ADRRID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
	IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
	ICAO-TI	Environmentally hazardous substance, solid, n.o.s.
	Technical name	Cobalt(II) chloride hexahydrate

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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14.3	Transport hazard class(es)	
	ADRRID	9
	IMDG-Code	9
	ICAO-TI	9
14.4	Packing group	
	ADRRID	III
	IMDG-Code	III
	ICAO-TI	III
14.5	Environmental hazards	hazardous to the aquatic environment

#### 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.

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

# Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)Additional information

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Particulars in the transport document	UN3077, ENVIRONMENTALLY HAZARDOUS SUB- STANCE, SOLID, N.O.S., (Cobalt(II) chloride hexahydrate), 9, III, (-)
Classification code	M7
Danger label(s)	9, "Fish and tree"
Environmental hazards	<b>Yes</b> (hazardous to the aquatic environment)
Special provisions (SP)	274, 335, 375, 601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Transport category (TC)	3
Tunnel restriction code (TRC)	-
Hazard identification No	90
Regulations concerning the International Carria information	age of Dangerous Goods by Rail (RID)Additional
Classification code	M7
Danger label(s)	9, "Fish and tree"

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Environmental hazards	Yes Hazardous to water
Special provisions (SP)	274, 335, 375, 601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Transport category (TC)	3
Hazard identification No	90
International Maritime Dangerous Goods Code	(IMDG) - Additional information
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Particulars in the shipper's declaration	UN3077, ENVIRONMENTALLY HAZARDOUS SUB- STANCE, SOLID, N.O.S., (Cobalt(II) chloride hexahydrate), 9, III
Marine pollutant	<b>YES</b> (hazardous to the aquatic environment), (Cobalt(II) chlor- ide hexahydrate)
Danger label(s)	9, "Fish and tree"
Special provisions (SP)	274, 335, 966, 967, 969
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
EmS	F-A, S-F
Stowage category	A
International Civil Aviation Organization (ICAO-	IATA/DGR) - Additional information
Proper shipping name	Environmentally hazardous substance, solid, n.o.s.
Particulars in the shipper's declaration	UN3077, Environmentally hazardous substance, solid, n.o.s., (Cobalt(II) chloride hexahydrate), 9, III
Environmental hazards	<b>yes</b> (hazardous to the aquatic environment)
Danger label(s)	9, "Fish and tree"
Special provisions (SP)	A97, A158, A179, A197, A215
Excepted quantities (EQ)	E1
Limited quantities (LQ)	30 kg

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# SECTION 15: Regulatory information

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

**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	Νο	
Cobalt(II) chloride hexahydrate	carcinogenic		R28-30	28	
Cobalt(II) chloride hexahydrate	toxic for reproduction		R28-30	30	
Cobalt(II) chloride hexahydrate	substances in tattoo inks and perman- ent make-up		R75	75	

#### 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 generic concentration limit specified in Part 3 of Annex I of 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'.

(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:

(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 Regulation (EC) No 1272/2008;
(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;
(f) devices covered by Regulation (EU) 2017/745.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

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8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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#### Legend

9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

#### List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

#### Substance of Very High Concern (SVHC)

Name acc. to invent- ory	CAS No	Listed in	Remarks	Latest ap- plication date	Sunset date	Date of in- clusion
cobalt dichloride	7646- 79-9	Candidate list	Carc. A57a Repr. A57c			2008-10-28

Legend

Candidate list Substances meeting the criteria referred to in Article 57 and for eventual inclusion in Annex XIV Carc. A57a Carcinogenic (article 57a)

Repr. A57c Toxic for reproduction (article 57c)

#### **Seveso Directive**

2012/18/EU (Seveso III)				
Νο	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the ap- plication of lower and upper-tier re- quirements	Notes	
E1	environmental hazards (hazardous to the aquatic en- vironment, cat. 1)	100 200	56)	

Notation

56) Hazardous to the Aquatic Environment in category Acute 1 or Chronic 1

#### **Deco-Paint Directive**

VOC content	0 %
VOC content	0 <sup>g</sup> / <sub>l</sub>

#### **Industrial Emissions Directive (IED)**

VOC content	0 %
VOC content	0 <sup>g</sup> / <sub>l</sub>

# Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

# Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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Water Framework Directive	Water Framework Directive (WFD)				
List of pollutants (WFD)					
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks	
Cobalt(II) chloride hexahydrate	Substances and preparations, or the breakdown products of such, which have been proved to pos- sess 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 hexahydrate	Metals and their compounds		a)		

**Legend** a)

Indicative list of the main pollutants

#### Regulation on the marketing and use of explosives precursors

not listed

#### **Regulation on drug precursors**

not listed

#### Regulation on substances that deplete the ozone layer (ODS)

not listed

### Regulation concerning the export and import of hazardous chemicals (PIC)

not listed

#### **Regulation on persistent organic pollutants (POP)**

not listed

#### **Other information**

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

#### **National inventories**

Country	Inventory	Status
AU	AIIC	substance is listed
CA	DSL	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
EU	REACH Reg.	substance is listed
JP	CSCL-ENCS	substance is listed
KR	KECI	substance is listed
MX	INSQ	substance is listed
NZ	NZIoC	substance is listed
PH	PICCS	substance is listed
TW	TCSI	substance is listed

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Country	Inventory	Status	
US	TSCA	substance is listed (ACTIVE)	
VN	NCI	substance is listed	
Legend AIIC CSCL-ENCS DSL ECSI IECSC INSQ KECI NCI NZIOC PICCS REACH Reg. TCSI TSCA	Domestic Substances List EC Substance Inventory (I Inventory of Existing Chen National Inventory of Che Korea Existing Chemicals National Chemical Invent New Zealand Inventory of	Chemical Substances (CSCL-ENCS) (DSL) EINECS, ELINCS, NLP) mical Substances Produced or Imported in China mical Substances Inventory ory of Chemicals nemicals and Chemical Substances (PICCS) neces ce Inventory	

#### 15.2 Chemical safety assessment

According to REACH, Article 14 (1) a chemical safety assessment has been carried out for this substance or components of this mixture when the substance has been registered in quantities of 10 tonnes or more per year per registrant.

# **SECTION 16: Other information**

#### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.2		Hazard statements: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.	yes
15.1	VOC content: 0 % 0 <sup>g</sup> / <sub>l</sub>	VOC content: 0 %	yes
15.1		VOC content: 0 <sup>g</sup> / <sub>l</sub>	yes
15.1		National inventories: change in the listing (table)	yes
15.2	Chemical Safety Assessment: No Chemical Safety Assessment has been car- ried out for this substance.	Chemical safety assessment: According to REACH, Article 14 (1) a chemical safety assessment has been carried out for this substance or components of this mixture when the substance has been registered in quantities of 10 tonnes or more per year per registrant.	yes

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

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#### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
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
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
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identi- fier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
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
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions
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
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
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
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals

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Abbr.	Descriptions of used abbreviations
Repr.	Reproductive toxicity
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
S.I. No. 619 of 2001	Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001
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

#### 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.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

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

Code	Text
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
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.

#### Disclaimer

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