

## Safety Data Sheet

according to UK REACH Regulation

### Cobalt(II) chloride hexyhadrate aqueous (2 %)

Revision date: 07.12.2023

Product code: 18615.xxxxx

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

##### 1.1. Product identifier

Cobalt(II) chloride hexyhadrate aqueous (2 %)

UFI: N6JN-W1A1-H00K-E4R1

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

###### Use of the substance/mixture

Use as laboratory reagent. The product is intended for research, analysis and scientific education.

###### Uses advised against

Any non-intended use.

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

Company name: MORPHISTO GmbH  
Street: Schumannstr. 142/144  
Place: D-63069 Offenbach  
Telephone: +49 (0) 69 / 400 3019-60      Telefax: +49 (0) 69 / 400 3019-64  
E-mail: info@morphisto.de  
Contact person: Morphisto GmbH  
E-mail: gefahrstoffmanagement@morphisto.de  
Internet: http://www.morphisto.de

##### 1.4. Emergency telephone number:

Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### GB CLP Regulation

Resp. Sens. 1; H334  
Skin Sens. 1; H317  
Muta. 2; H341  
Carc. 1B; H350i  
Repr. 1B; H360F  
Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

##### 2.2. Label elements

###### GB CLP Regulation

###### Hazard components for labelling

cobalt dichloride

Signal word: Danger

###### Pictograms:



###### Hazard statements

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.  
H411 Toxic to aquatic life with long lasting effects.

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**Precautionary statements**

P201	Obtain special instructions before use.
P261	Avoid breathing Vapour.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P391	Collect spillage.

**Special labelling of certain mixtures**

Restricted to professional users.

**Labelling of packages where the contents do not exceed 125 ml**
**Signal word:** Danger

**Pictograms:**

**Hazard statements**

H317-H334-H341-H350i-H360F

**Precautionary statements**

P201-P261-P280-P304+P340-P308+P313-P342+P311

**2.3. Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain any components that are considered to be hazardous according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in amounts of 0.1 % or more have endocrine disrupting properties. Toxicological information: The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1 % or more have endocrine disrupting properties.

**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**
**Chemical characterization**

aqueous solution

**Hazardous components**

CAS No	Chemical name	EC No	Index No	REACH No	Quantity
		Classification (GB CLP Regulation)			
7646-79-9	cobalt dichloride				1 - < 5 %
		231-589-4	027-004-00-5	01-2119517584-37	
	Carc. 1B, Muta. 2, Repr. 1B, Acute Tox. 4, Resp. Sens. 1, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H350i H341 H360F H302 H334 H317 H400 H410				

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

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**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
7646-79-9	231-589-4	cobalt dichloride	1 - < 5 %
		dermal: LD50 = >2000 mg/kg; oral: LD50 = 418 mg/kg Carc. 1B; H350i: >= 0,01 - 100 Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=10	

**Further Information**

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: cobalt dichloride (CAS: 7646-79-9)

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
**General information**

Occupational health care must be offered if repeated exposure cannot be ruled out during activities with the substance/mixture. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection! Take off immediately all contaminated clothing. Provide fresh air. Remove affected person from the danger area and lay down. In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still. Do not leave affected person unattended. Put victim at rest, cover with a blanket and keep warm.

**After inhalation**

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary. Remove casualty to fresh air and keep warm and at rest. In case of irritation or shortness of breath: As soon as possible glucocorticoid dose aerosol can breathe repeated deep inhalation.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

**After contact with eyes**

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist. In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

**After ingestion**

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Rinse out mouth, spit out liquid again. Let water be drunken in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

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

Acute effects Irritant effect on mucous membranes, sensitising effect on skin and respiratory tract.  
chronic: allergic or irritant respiratory reactions, lung damage (fibrosis), allergic skin diseases; in the high dose range heart damage, influence on blood formation and thyroid function.

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

Treat symptomatically. Thoroughly clean contaminated skin areas, paying particular attention to wounds, broken skin and hidden areas. Any skin irritation can be treated with a dermatocorticoid. In case of irritation or respiratory distress, immediate application of glucocorticoids (inhalation/i.v.) is indicated. After massive exposure, in addition to glucocorticoid administration, all further measures of pulmonary oedema prophylaxis should be initiated if necessary, later also pneumonia prophylaxis and longer-term follow-up. After ingestion, fluid administration and endoscopy as soon as possible were recommended. If necessary, treat systemic effects symptomatically. Transport to hospital for clarification of intoxication. Especially recommended are control of water/electrolyte balance and renal function as well as ECG monitoring. Translated with [www.DeepL.com/Translator](http://www.DeepL.com/Translator) (free version)

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**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**5.2. Special hazards arising from the substance or mixture**

Non-flammable. The product itself does not burn. Hazardous decomposition products: Hydrochloric gas.

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

**Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Clear danger zone. Follow emergency plan. Consult an expert.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. highly hazardous to water. Discharge into the environment must be avoided. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

**6.3. Methods and material for containment and cleaning up****For containment**

Cover drains.

**For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**Other information**

Clean contaminated articles and floor according to the environmental legislation.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Carcinogenic and germ cell mutagenic substances may only be handled in closed apparatus. If leakage cannot be prevented, suction at the point of leakage is required. If handled uncovered, arrangements with local exhaust ventilation have to be used. Use extractor hood (laboratory). Wear suitable protective clothing. See section 8. Conditions to avoid: aerosol or mist generation. Always close containers tightly after the removal of product. Ensure cleanliness and dryness in the workplace.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat,

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drink, smoke, sniff.

#### Further information on handling

When using do not eat, drink, smoke, sniff. Wear personal protection equipment. Take off contaminated clothing and wash it before reuse. Street clothing should be stored separately from work clothing. Wash hands and face before breaks and after work and take a shower if necessary. Draw up and observe skin protection programme.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep only in original packaging.

##### Hints on joint storage

Do not store together with: food and feed. pharmaceuticals. Infectious substances. Radioactive substances. Explosive substances. Oxidizing substances. Oxidizing liquids. Organic peroxides. Self-reactive substances and mixtures. Pyrophoric solids. Substances which in contact with water form flammable gases. Ammonium nitrate and preparations containing ammonium nitrate.

##### Further information on storage conditions

storage temperature: 15-25 °C. Protect against: frost. Heat. Humidity. The floor should not have a floor drain.

#### 7.3. Specific end use(s)

Use as laboratory reagent.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
-	Cobalt and cobalt compounds (as Co)	-	0.1		TWA (8 h)	WEL

#### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
7646-79-9	cobalt dichloride			
Worker DNEL, long-term		inhalation	local	0,0881 mg/m <sup>3</sup>

#### PNEC values

CAS No	Substance	Value
Environmental compartment		
7646-79-9	cobalt dichloride	
Freshwater		0,00062 mg/l
Marine water		0,00236 mg/l
Freshwater sediment		53,8 mg/kg
Marine sediment		69,8 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,37 mg/l
Soil		10,9 mg/kg

### 8.2. Exposure controls

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#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Technical measures and the application of suitable work processes have priority over personal protection equipment. Carcinogenic and germ cell mutagenic substances may only be handled in closed apparatus. If leakage cannot be prevented, suction at the point of leakage is required. Provide adequate ventilation as well as local exhaustion at critical locations. Recirculation of exhaust air is not recommended. The floor should not have a floor drain. Provide washing facilities at the workplace, provide an eye shower or eyewash bottle and mark them.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Wear eye/face protection. Tightly sealed safety glasses.

##### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Recommended material: Breakthrough time (maximum wearing time): >480 min.:

NR (Natural rubber (Caoutchouc), Natural latex). - 0,5mm.

CR (polychloroprenes, Chloroprene rubber). - 0,5mm.

NBR (Nitrile rubber). - 0,35mm.

Butyl rubber. - 0,5mm.

FKM (fluororubber). - 0,4mm.

PVC (Polyvinyl chloride). -0,5mm.

Before using check leak tightness / impermeability.

##### Skin protection

Use of protective clothing. Chemical protection clothing.

##### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Suitable respiratory protective equipment: particulates filter device (DIN EN 143).P3 Identification color: white.

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

##### Environmental exposure controls

Do not allow to enter into surface water or drains. Discharge into the environment must be avoided.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	red-orange
Odour:	not determined
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	100 °C
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined

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Flash point:	not determined
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value (at 20 °C):	5-6
Viscosity / kinematic:	not determined
Water solubility: (at 20 °C)	easily soluble
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	not determined
Vapour pressure: (at 20 °C)	23 hPa
Vapour pressure: (at 50 °C)	123 hPa
Density (at 20 °C):	1,01 g/cm <sup>3</sup>
Relative vapour density:	not determined
Particle characteristics:	not applicable

**9.2. Other information****Information with regard to physical hazard classes**

Explosive properties

The product is not: Explosive.

Sustaining combustion:

Not sustaining combustion

Oxidizing properties

The product is not: oxidising.

**Other safety characteristics**

Evaporation rate:

not determined

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

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

Thermal decomposition

**10.3. Possibility of hazardous reactions**

Explosion risk in contact with: Alkali metals.

**10.4. Conditions to avoid**

UV-radiation/sunlight.

**10.5. Incompatible materials**

Materials to avoid: Substances which in contact with water, emit flammable gases.

**10.6. Hazardous decomposition products**

Hazardous decomposition products: Hydrogen chloride (HCl).

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

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

**ATEmix calculated**

ATE (oral) 38349 mg/kg; ATE (dermal) &gt; 2000 mg/kg; ATE (inhalation vapour) &gt; 20 mg/l; ATE (inhalation dust/mist) &gt; 5 mg/l

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7646-79-9	cobalt dichloride				
	oral	LD50 mg/kg	418	Rat	ECHA
	dermal	LD50 mg/kg	>2000	Rat	TOXNET

**Irritation and corrosivity**

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

**Sensitising effects**

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (cobalt dichloride)

May cause an allergic skin reaction. (cobalt dichloride)

**Carcinogenic/mutagenic/toxic effects for reproduction**

Suspected of causing genetic defects. (cobalt dichloride)

May cause cancer by inhalation. (cobalt dichloride)

May damage fertility. (cobalt dichloride)

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**11.2. Information on other hazards**
**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Other information**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

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

Toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7646-79-9	cobalt dichloride					
	Acute fish toxicity	LC50	0,8 mg/l	96 h	fish	ECHA
	Acute algae toxicity	ErC50	0,0952 mg/l	72 h		
	Acute crustacea toxicity	EC50	0,241 mg/l	48 h		ECHA
	Algae toxicity	NOEC	0,0241 mg/l	7 d		ECHA
	Crustacea toxicity	NOEC	0,0822 mg/l	21 d		ECHA

**12.2. Persistence and degradability**

The product has not been tested.

**12.3. Bioaccumulative potential**



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The product has not been tested.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
7646-79-9	cobalt dichloride	0,85

#### BCF

CAS No	Chemical name	BCF	Species	Source
7646-79-9	cobalt dichloride	23		

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. Other adverse effects

highly hazardous to water.

#### Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation. Discharge into the environment must be avoided. Consult the local waste disposal expert about waste disposal.

##### List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

##### List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

##### List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

##### Contaminated packaging

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

##### 14.1. UN number or ID number:

UN 3082

##### 14.2. UN proper shipping name:

 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 (cobalt dichloride)

##### 14.3. Transport hazard class(es):

9

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**14.4. Packing group:**

Hazard label:

III

9



Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

Hazard No:

90

Tunnel restriction code:

-

**Inland waterways transport (ADN)**
**14.1. UN number or ID number:**

UN 3082

**14.2. UN proper shipping name:**

 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 (cobalt dichloride)

**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

Excepted quantity:

E1

**Marine transport (IMDG)**
**14.1. UN number or ID number:**

UN 3082

**14.2. UN proper shipping name:**

 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 (cobalt dichloride)

**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9



Special Provisions:

274 335 969

Limited quantity:

5 L

Excepted quantity:

E1

EmS:

F-A, S-F

**Air transport (ICAO-TI/IATA-DGR)**
**14.1. UN number or ID number:**

UN 3082

**14.2. UN proper shipping name:**

 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 (cobalt dichloride)

**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

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Special Provisions:

A97 A158 A197 A215

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Limited quantity Passenger:	30 kg G
Passenger LQ:	Y964
Excepted quantity:	E1
IATA-packing instructions - Passenger:	964
IATA-max. quantity - Passenger:	450 L
IATA-packing instructions - Cargo:	964
IATA-max. quantity - Cargo:	450 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: cobalt dichloride

**14.6. Special precautions for user**

No information available.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

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

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):  
cobalt dichloride

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 28, Entry 75

Information according to 2012/18/EU (SEVESO III): E2 Hazardous to the Aquatic Environment

**National regulatory information**

Employment restrictions:

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

Water hazard class (D):

3 - highly hazardous to water

Skin resorption/Sensitization:

Causes allergic hypersensitivity reactions.

**Additional information**

The product is subject to the Chemicals Prohibition Ordinance (ChemVerbotsV). Observe the requirements and restrictions for handling and dispensing in Section 3 of the ChemVerbotsV, among others.

**15.2. Chemical safety assessment**For the following substances of this mixture a chemical safety assessment has been carried out:  
cobalt dichloride**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s):

1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

Rev. 1,00; 16.03.2021; Initial release.

Rev. 2,0; 07.12.2023; general adjustment(s)

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**Abbreviations and acronyms**

CLP: Classification, labelling and Packaging  
 REACH: Registration, Evaluation and Authorization of Chemicals  
 GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
 UN: United Nations  
 CAS: Chemical Abstracts Service  
 DNEL: Derived No Effect Level  
 DMEL: Derived Minimal Effect Level  
 PNEC: Predicted No Effect Concentration  
 ATE: Acute toxicity estimate  
 LC50: Lethal concentration, 50%  
 LD50: Lethal dose, 50%  
 LL50: Lethal loading, 50%  
 EL50: Effect loading, 50%  
 EC50: Effective Concentration 50%  
 ErC50: Effective Concentration 50%, growth rate  
 NOEC: No Observed Effect Concentration  
 BCF: Bio-concentration factor  
 PBT: persistent, bioaccumulative, toxic  
 vPvB: very persistent, very bioaccumulative  
 ADR: Accord européen sur le transport des marchandises dangereuses par Route  
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 RID: Regulations concerning the international carriage of dangerous goods by rail  
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
 IMDG: International Maritime Code for Dangerous Goods  
 EmS: Emergency Schedules  
 MFAG: Medical First Aid Guide  
 IATA: International Air Transport Association  
 ICAO: International Civil Aviation Organization  
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
 IBC: Intermediate Bulk Container  
 SVHC: Substance of Very High Concern  
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>  
 For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).  
 Acute Tox: Acute toxicity  
 Resp. Sens: Respiratory sensitisation  
 Skin Sens: Skin sensitisation  
 Muta: Germ cell mutagenicity  
 Carc: Carcinogenicity  
 Repr: Reproductive toxicity  
 Aquatic Acute: Acute aquatic hazard  
 Aquatic Chronic: Chronic aquatic hazard

**Classification for mixtures and used evaluation method according to GB CLP Regulation**

Classification	Classification procedure
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method
Muta. 2; H341	Calculation method
Carc. 1B; H350i	Calculation method
Repr. 1B; H360F	Calculation method
Aquatic Chronic 2; H411	Calculation method

**Safety Data Sheet**

according to UK REACH Regulation

**Cobalt(II) chloride hexyhadrate aqueous (2 %)**

Revision date: 07.12.2023

Product code: 18615.xxxxx

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**Relevant H and EUH statements (number and full 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.
H411	Toxic to aquatic life with long lasting effects.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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