

# SAFETY DATA SHEET

COBALT (II) NITRATE HEXAHYDRATE 98%

Page: 1

Compilation date: 21/11/2018

Revision No: 1

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

### 1.1. Product identifier

**Product name:** COBALT (II) NITRATE HEXAHYDRATE 98%

**CAS number:** 10026-22-9

**EINECS number:** 233-402-1

**Product code:** GPC1668

**Synonyms:** COBALTOUS NITRATE

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

**Use of substance / mixture:** PC21: Laboratory chemicals.

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

Select School Supplies  
The Old Granary  
Berghill House  
Oswestry  
SY11 4PD  
01691 770366  
sales@selectschoolsupplies.co.uk



## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CLP:** Ox. Sol. 2: H272; Acute Tox. 4: H302+332; Resp. Sens. 1: H334; Skin Sens. 1: H317; Muta. 2: H341; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Repr. 1B: H360F; Carc. 1B: H350; Aquatic Acute 1: H400; Carc. 1Ai: H350i

**Classification under CHIP:** T: R49; Xn: R68; T: R60; Sens.: R42/43; N: R50/53

**Most important adverse effects:** May intensify fire; oxidiser. Harmful if swallowed or if inhaled. May cause an allergic skin reaction. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing genetic defects. May cause cancer by inhalation. May damage fertility. Very toxic to aquatic life with long lasting effects.

### 2.2. Label elements

**Label elements under CLP:**

**Hazard statements:** H272: May intensify fire; oxidiser.

H302+332: Harmful if swallowed or if inhaled.

[cont...]

## SAFETY DATA SHEET

COBALT (II) NITRATE HEXAHYDRATE 98%

Page: 2

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

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.

**Signal words:** Danger

**Hazard pictograms:** GHS03: Flame over circle

GHS07: Exclamation mark

GHS08: Health hazard

GHS09: Environmental

GHS05: Corrosion



**Precautionary statements:** P201: Obtain special instructions before use.

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P220: Keep/Store away from clothing/combustible materials.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor.

P308+313: IF exposed or concerned: Get medical advice/attention.

### 2.3. Other hazards

**Other hazards:** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Restricted to professional users.

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.1. Substances

**Chemical identity:** COBALT (II) NITRATE HEXAHYDRATE 98%

**CAS number:** 10026-22-9

**EINECS number:** 233-402-1

**Contains:** Molecular Formula :  $\text{CoN}_2\text{O}_6 \cdot 6\text{H}_2\text{O}$

Molecular Weight : 291.03 g/mol

[cont...]

# SAFETY DATA SHEET

COBALT (II) NITRATE HEXAHYDRATE 98%

Page: 3

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Wash immediately with plenty of soap and water. Consult a doctor.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Never give anything by mouth to an unconscious person. Wash out mouth with water.  
Consult a doctor.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapours. If unconscious, check for breathing and apply artificial respiration if necessary. Consult a doctor.

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

**Skin contact:** No data available.

**Eye contact:** No data available.

**Ingestion:** No data available.

**Inhalation:** No data available.

**Delayed / immediate effects:** No data available.

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

**Immediate / special treatment:** Not applicable.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Dry chemical powder. Dry sand.

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

**Exposure hazards:** Not applicable.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus.

## Section 6: Accidental release measures

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

**Personal precautions:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust. For personal protection see section 8.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers.

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

**Clean-up procedures:** Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

[cont...]

**SAFETY DATA SHEET**  
COBALT (II) NITRATE HEXAHYDRATE 98%

**6.4. Reference to other sections**

**Reference to other sections:** Refer to section 13 of SDS.

**Section 7: Handling and storage**

**7.1. Precautions for safe handling**

**Handling requirements:** Use non-sparking tools. Smoking is forbidden. Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

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

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed.

**Suitable packaging:** Not applicable.

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

**Specific end use(s):** No special requirement.

**Section 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	0.1 mg/m <sup>3</sup>	-	-	-

**8.1. DNEL/PNEC Values**

**DNEL / PNEC** No data available.

**8.2. Exposure controls**

**Engineering measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection:** Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

# SAFETY DATA SHEET

COBALT (II) NITRATE HEXAHYDRATE 98%

Page: 5

Break through time: 480 min Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

**Eye protection:** Face-shield. Safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection:** Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Environmental:** Do not let product enter drains. Prevent from entering in public sewers or the immediate environment.

## Section 9: Physical and chemical properties

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

**State:** Crystalline

**Colour:** Red

**Melting point/range°C:** 55

**Relative density:** 1.88 g/cm<sup>3</sup>

**pH:** 4.0 at 100g/l

### 9.2. Other information

**Other information:** Not applicable.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** No data available.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** No data available.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat. Exposure to moisture may affect product quality.

### 10.5. Incompatible materials

**Materials to avoid:** Organic materials. Reducing agents.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes of nitrogen oxides and cobalt/ cobalt oxides.

## Section 11: Toxicological information

[cont...]

# SAFETY DATA SHEET

COBALT (II) NITRATE HEXAHYDRATE 98%

Page: 6

## 11.1. Information on toxicological effects

### Toxicity values:

Route	Species	Test	Value	Units
ORAL	RAT	LD50	691	mg/kg

### Relevant hazards for substance:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	INH ING	Based on test data
Serious eye damage/irritation	OPT	Based on test data
Respiratory/skin sensitisation	INH DRM	Based on test data
Germ cell mutagenicity	--	Based on test data
Carcinogenicity	--	Based on test data
Reproductive toxicity	--	Based on test data

## Symptoms / routes of exposure

**Skin contact:** No data available.

**Eye contact:** No data available.

**Ingestion:** No data available.

**Inhalation:** No data available.

**Delayed / immediate effects:** No data available.

**Other information:** Not applicable.

## Section 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity values:** No data available.

### 12.2. Persistence and degradability

**Persistence and degradability:** No data available.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No data available.

### 12.4. Mobility in soil

**Mobility:** No data available.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

**Other adverse effects:** Very toxic to aquatic organisms.

[cont...]

# SAFETY DATA SHEET

COBALT (II) NITRATE HEXAHYDRATE 98%

Page: 7

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste.

Handle uncleaned containers like the product itself.

**Recovery operations:** Not applicable.

**Disposal of packaging:** Dispose of as unused product.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN1477

### 14.2. UN proper shipping name

**Shipping name:** ADR/RID: NITRATES, INORGANIC, N.O.S. (Cobaltous nitrate, hexahydrate)

IMDG: NITRATES, INORGANIC, N.O.S. (Cobaltous nitrate, hexahydrate)

IATA: Nitrates, inorganic, n.o.s.

### 14.3. Transport hazard class(es)

**Transport class:** 5.1

### 14.4. Packing group

**Packing group:** 2

### 14.5. Environmental hazards

**Environmentally hazardous:** Yes

**Marine pollutant:** Yes

### 14.6. Special precautions for user

**Special precautions:** No special precautions.

## Section 15: Regulatory information

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

**Specific regulations:** This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

[cont...]

## SAFETY DATA SHEET

COBALT (II) NITRATE HEXAHYDRATE 98%

Page: 8

### Section 16: Other information

#### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and 3:** H272: May intensify fire; oxidiser.  
H302+332: Harmful if swallowed or if inhaled.  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H341: Suspected of causing genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.  
H350i: May cause cancer by inhalation.  
H360F: May damage fertility.  
H410: Very toxic to aquatic life with long lasting effects.  
R42/43: May cause sensitisation by inhalation and skin contact.  
R49: May cause cancer by inhalation.  
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R60: May impair fertility.  
R68: Possible risk of irreversible effects.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.