

## COBALT (II) SULFATE HEPTAHYDRATE

### SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

Product Name: Cobalt(II) sulfate heptahydrate  
Product Code: CM 23113  
CAS#: 10026-24-1  
Synonym: Cobaltous sulfate  
Chemical Name: Not available  
Chemical Formula:  $\text{CoO}_4\text{S}\cdot 7\text{H}_2\text{O}$   
Formula weight : 281.10

### SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

#### Composition:

Name: Cobalt(II) sulfate heptahydrate  
Toxicological Data on Ingredients: Acute Tox. 4; Eye Irrit. 2; Resp. Sens. 1; Skin Sens. 1; Muta. 2; Carc. 1B; Repr. 1B;  
Aquatic Acute 1; Aquatic Chronic 1; H302, H319, H334, H317, H341,  
H350i, H360F, H400, H410

### SECTION 3: HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

Eye irritation (Category 2), H319  
Respiratory sensitization (Category 1), H334  
Skin sensitization (Category 1), H317  
Germ cell mutagenicity (Category 2), H341  
Reproductive toxicity (Category 1B), H360F  
Potential Acute Health Effects: Short-term (acute) aquatic hazard (Category 1), H400  
Potential Chronic Health Effects: Long-term (chronic) aquatic hazard (Category 1), H410  
Carcinogenic Effects: Carcinogenicity, Inhalation (Category 1B), H350i  
Mutagenic Effects: Not available.  
Teratogenic Effects: Not available.  
Developmental Toxicity: Not Available

### SECTION 4: FIRST AID MEASURES

#### Description of first aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.  
If inhaled If breathed in: Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
In case of skin contact Wash off with soap and plenty of water. Consult a physician.  
In case of eye contact: Flush eyes with water as a precaution.  
If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.  
Most important symptoms and effects, both acute and delay: No data available  
Indication of any immediate medical attention and special treatment needed: No data available

### SECTION 5: FIRE AND EXPLOSION DATA

#### Extinguishing media

Suitable extinguishing media :



Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Special hazards arising from the substance or mixture  
Nitrogen oxides (NOx)  
Cobalt/cobalt oxides  
Not combustible.  
Has a fire-promoting effect due to release of oxygen.  
Ambient fire may liberate hazardous vapours.  
Development of hazardous combustion gases or vapours possible in the event of fire.  
Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.  
Environmental precautions Do not let product enter drains.  
Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers.

#### SECTION 7: HANDLING AND STORAGE

Precautions for safe handling  
Work under hood. Do not inhale substance/mixture.  
Conditions for safe storage, including any incompatibilities  
Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons  
Storage Class:  
Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects  
Specific end use(s) A part from the uses:  
No other specific uses are stipulated

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls  
Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.  
Personal protective equipment  
Eye/face protection Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).  
Skin protection Handle with gloves. Gloves must be inspected prior to use. 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.  
Body 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.  
Respiratory protection For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).  
Control of environmental exposure Do not let product enter drains.

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance Form :Crystalline



Colour	:Red Brown
Odour	:Not available
Odour Threshold	:Not available
pH	:Not available
Melting point/freezingpoint	:98°C
Initial boiling pointandboilingrange	:Not available
Flash point	:Not available
Evapouration rate	:Not available
Flammability (solid,gas)	:Not available
Upper/lower flammabilityorexposivelimits	:Not available
Vapour pressure	:Not available
Vapour density	:Not available
Relative density	:2,03 g/cm <sup>3</sup> at 25 °C - lit.
Water solubility	:362 g/l at 20 °C
Partition coefficient	:Not available
Auto-ignition temperature	:Not available

#### SECTION 10: STABILITY AND REACTIVITY DATA

Reactivity no data available

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions

no data available

Conditions to avoid :

no data available

Incompatible materials

no data available

Hazardous decomposition products Other decomposition products - In the event of fire

#### SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity:

LD50 Oral - Rat - male and female - 1.330 mg/kg

Skin corrosion/irritation no data available

Serious eye damage/eye irritation no data available

Respiratory or skin sensitization no data available

Carcinogenicity

May cause cancer by inhalation.

#### SECTION 12: ECOLOGICAL INFORMATION

Toxicity:

Toxicity to fish semi-static test LC50 - Pimephales promelas (fathead minnow) - 1,866 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates static test LC50 - Ceriodaphnia dubia (water flea) - 0,39 mg/l - 48 h

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata - 0,095 mg/l - 72 h

Toxicity to bacteria static test EC50 - activated sludge - 120 mg/l - 30 min

Persistence and degradability:



Not available.

Bioaccumulative potential no data available

Mobility in soil no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available

Other adverse effects no data available

### SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods Product Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging Dispose of as unused product.

### SECTION 14: TRANSPORT INFORMATION

UN number:

ADR/RID: 3077

IMDG: 3077

IATA: 3077

UN proper shipping name

ADR/RID: Environmentally Hazardous Substance, Solid, N.O.S. (Cobalt(II) sulfate heptahydrate)

IMDG: Environmentally Hazardous Substance, Solid, N.O.S. (Cobalt(II) sulfate heptahydrate)

IATA: Environmentally Hazardous Substance, Solid, N.O.S. (Cobalt(II) sulfate heptahydrate)

Transport hazard class(es):

ADR/RID: 9

IMDG: 9

IATA: 9

Packaging group:

ADR/RID: III

IMDG: III

IATA: III

Environmental hazards:

ADR/RID: Yes

IMDG Marinepollutant: Yes

IATA: Yes

### SECTION 15: OTHER REGULATORY INFORMATION

Regulatory information This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### SECTION 16: OTHER INFORMATION

References: Full text of H AND R-Statements.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

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.

Other Special Considerations: Not available

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