

SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company/undertaking

Product Name: Cobalt(II) chloride hexahydrate
CAS: 7791-13-1
Application: Laboratory chemicals, Manufacture of substances
Manufacturer: Sinopharm Chemical Reagent Co., Ltd. No. 52 Ning Bo Road, Shanghai 200002, China
Fax: 86-021-6321403
Emergency Telephone: 86-0532-83889090
Email: sj_zjzx@sinopharm.com
Website: <http://www.reagent.com.cn>
MSDS No: SCRC CSDS7791-13-1 Cobalt(II) chloride hexahydrate

2. Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 4) Respiratory sensitisation (Category 1) Skin sensitisation (Category 1) Germ cell mutagenicity (Category 2) Carcinogenicity (Category 1B) Reproductive toxicity (Category 1B) Acute aquatic toxicity (Category 1) Chronic aquatic toxicity (Category 1)

Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word: Danger

Hazard statement(s): 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. H350 May cause cancer. H360 May damage fertility or the unborn child. H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P201 Obtain special instructions before use. P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P273 Avoid release to the environment. P280 Wear protective gloves. P281 Use personal protective equipment as required. P285 In case of inadequate ventilation wear respiratory protection.

P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P363 Wash contaminated clothing before reuse.

not applicable

not applicable

Other hazards

none

3. Composition/information on ingredients

Substance/Mixture: Substance

Component	CAS RN	Concentration
Cobalt(II) chloride hexahydrate	7791-13-1	≤100

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 delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

no data available

5. Firefighting measures

Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

no data available

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

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. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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 for disposal.

Reference to other sections

For disposal see section 13.

7. Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls/personal protection

Control parameters

Components with workplace control parameters

MAC: No data available

PC-STEL: No data available

TLV-TWA: 0.02 [按Co计]

PC-TWA: No data available

TLV-C: No data available

TLV-STEL: No data available

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

Face shield and 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.

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. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particulate 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).

Control of environmental exposure

Do not let product enter drains.

9. Physical and chemical properties

Information on basic physical and chemical properties

a) Appearance	Form: solid
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	4.9 (50g/L, H ₂ O, 25°C)
e) Melting point/freezing point	86°C
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available

l) Vapour density	No data available
m) Relative density	ρ (25) 1.92g/mL
n) Water solubility	No data available
o) Partition coefficient: noctanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	NA
s) Explosive properties	No data available
t) Oxidizing properties	No data available

Other safety information

No data available.

10. Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Exposure to moisture

Incompatible materials

Oxidizing agents, Alkali metals

Hazardous decomposition products

Other decomposition products - No data available
In the event of fire: see section 5

11. Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 766 mg/kg
Remarks: Behavioral: Tremor. Diarrhoea Nutritional and Gross Metabolic: Weight loss or decreased weight gain.
LD50 Dermal - Rat - > 2,000 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

In vitro tests showed mutagenic effects
Mouse mammary gland Mutation in mammalian somatic cells.

Carcinogenicity

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.
Possible human carcinogen
IARC: 2B - Group 2B: Possibly carcinogenic to humans (Cobalt dichloride hexahydrate)
2B - Group 2B: Possibly carcinogenic to humans (Cobalt dichloride hexahydrate)

Reproductive toxicity

Presumed human reproductive toxicant

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: GG0200000
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Liver - Irregularities - Based on Human Evidence

12. Ecological information

Toxicity

Toxicity to fish LC50 - Cyprinus carpio (Carp) - 0.33 mg/l - 96.0 h
Toxicity to daphnia and other aquatic EC50 - Daphnia magna (Water flea) - 1.1 - 1.6 mg/l - 48 h
Invertebrates Toxicity to algae EC50 - Chlorella vulgaris (Fresh water algae) - 0.5 mg/l - 96 h

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

No data available

Other adverse effects

Very toxic to aquatic life with long lasting effects.

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.

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
dichloride hexahydrate)

IMDG:ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, SOLID, N. O. S. (Cobalt
dichloride hexahydrate)

IATA:ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, SOLID, N. O. S. (Cobalt
dichloride hexahydrate)

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:yes

IATA:yes

Special precautions for user

no data available

15. Regulatory information

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

No data available

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. Other information

Full text of H-Statements referred to under sections 2 and 3.

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.H350 May cause cancer.H360 May damage fertility or the unborn child.H410 Very toxic to aquatic life with long lasting effects.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sinopharm Chemical Reagent Co.,Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.