Safety Data Sheet

Date of Issue: 31.08.2021 Date of Expiry: 31.08.2026

1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name : **ECP Limited**
Address : PO Box 34125, Birkenhead, Auckland 0746
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Emergency phone number : 0800 243 622 (24 hours)

Product Name	**Cobalt (II) Nitrate Hexahydrate**
Product Code	**19701**
CAS No.	**10026-22-9**

Recommended use : Laboratory Investigations

2: Hazards identification

2.1 GHS Classification

Oxidizing liquids or solids (Category B), H272
Acute toxicity, Oral (Category D), H302
Skin sensitisation (Category B), H317
Carcinogenicity (Category B), , H351
Aquatic toxicity (Acute or Chronic) (Category A), H400

2.2 GHS Label elements, including precautionary statements

Hazard Pictogram

Signal Word : Danger

Hazard statement(s)

H272 : May intensify fire; oxidizer.
H302 : Harmful if swallowed.
H317 : May cause an allergic skin reaction.
H351 : Suspected of causing cancer.
H400 : Very toxic to aquatic life.

Precautionary statement(s)
Prevention

P201 : Obtain special instructions before use.
P202 : Do not handle until all safety precautions have been read and understood.
P210 : Keep away from heat.
P220 : Keep/Store away from clothing/ combustible materials.
P221 : Take any precaution to avoid mixing with combustibles.
P261 : Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 : Wash skin thoroughly after handling.

P270 : Do not eat, drink or smoke when using this product.
P272 : Contaminated work clothing should not be allowed out of the workplace.
P273 : Avoid release to the environment.
P280 : Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response
P301 + P312 : IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.
P308 + P313 : IF exposed or concerned: Get medical advice/ attention.
P321 : Specific treatment (see supplemental first aid instructions on this label).
P330 : Rinse mouth.
P333 + P313 : If skin irritation or rash occurs: Get medical advice/ attention.
P363 : Wash contaminated clothing before reuse.
P370 + P378 : In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P391 : Collect spillage.

Storage
P405 : Store locked up.

Disposal
P501 : Dispose of contents/ container to an approved waste disposal plant.
Restricted to professional users.

2.3 Other hazards - none

3: Composition/information on ingredients

Substance / Mixture: Substance

3.1 Substances
Synonyms : Cobaltous nitrate hexahydrate
Formula : CoN2O6 · 6H2O
Molecular wt. : 291.03 g/mol
CAS-No. : 10026-22-9

Hazardous components

Component	Classification	Concentration
Cobaltous nitrate, hexahydrate		
	5.1.1 B; 6.1 D; 6.5 B; 6.7 B; 9.1 A; H272, H302, H317, H351, H400	<= 100 %

4: First aid measures

4.1 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
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 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

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Dry powder , Dry sand

5.2 Special hazards arising from the substance or mixture
Nitrogen oxides (NOx), Cobalt/cobalt oxides

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
Use water spray to cool unopened containers.

6: Accidental release measures

6.1 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.

6.2 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.

6.3 Methods and materials for containment and cleaning up
Sweep up and shovel. 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.

6.4 Reference to other sections
For disposal see section 13.

7: Handling and storage

7.1 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. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8: Exposure controls/personal protection

8.1 Control parameters
Components with workplace control parameters

8.2 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.

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
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or 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.

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

9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Molecular mass	: 291.03 g/mol
Colour	: Red crystals.
Odour	: odourless.
Odour threshold	: No data available
pH	: 4 at 100 g/l at 20 °C
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 55 °C
Freezing point	: No data available
Boiling point	: 75 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available

Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C: No data available	
Relative density	: No data available
Density	: 1.87 g/cm³
Solubility	: Water: 134 g/100ml
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: The substance or mixture is classified as oxidizing with the subcategory 2.
Explosive limits	: No data available

10: Stability and reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Heat Exposure to moisture

10.5 Incompatible materials
Organic materials, Reducing agents

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Nitrogen oxides (NOx), Cobalt/cobalt oxides
Other decomposition products - No data available
In the event of fire: see section 5

11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity
LD50 Oral - Rat - 691 mg/kg
LD50 Oral - Rat - 434 mg/kg
Remarks: anhydrous
Inhalation: No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitisation
No data available

Germ cell mutagenicity
In vitro tests showed mutagenic effects
No data available

Carcinogenicity
Possible human carcinogen
IARC: 2B - Group 2B: Possibly carcinogenic to humans (Cobaltous nitrate, hexahydrate)
2B - Group 2B: Possibly carcinogenic to humans (Cobaltous nitrate, 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: QU7355500
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12: Ecological information

12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
Very toxic to aquatic life with long lasting effects.
No data available

13: Disposal considerations

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

Contaminated packaging
Dispose of as unused product.

14: Transport Information Table

	ADR/RID – European	IMDG International	IATA – DGR International Air

		packaging certification	Maritime Dangerous Goods Code	Travel Association – Dangerous Goods Regulations
14.1	**UN Number**	1477	1477	1477
14.2	**UN Proper Shipping name**	NITRATES, INORGANIC, N.O.S. (Cobaltous nitrate, hexahydrate)	NITRATES, INORGANIC, N.O.S. (Cobaltous nitrate, hexahydrate)	Nitrates, inorganic, n.o.s.
14.3	**Transport Hazard Class**	5.1	5.1	5.1
14.4	**Packaging group**	III	III	III
14.5	**Environmental Hazards**	Yes	Yes	No
14.6	**Special precautions for user**	None		
14.7	**Incompatible materials**	Organic materials, Reducing agents		

15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulatory information
HSNO Approval Code: HSR001322
HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group Standard 2006
Tracking Required: not required
Approved Handler Cert.: not required

16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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