

Material Safety Data Sheet

Infosafe No™ ACEOA Issue Date : June 2024 ISSUED by ACECHEM

Product Name **COBALT (II) NITRATE**

Classified as hazardous

Section 1 - Identification

Product Identifier COBALT (II) NITRATE
Company Product Codes / Numbers / Unique Identifiers C551782
Company Name ACE CHEMICAL COMPANY (ABN 35619819300)
Address 119A Mooringe Avenue Camden Park
SA 5038 AUSTRALIA
Telephone/Fax Number Tel: 08-8376 0844
Fax: 08-8295 8563
Emergency Phone Number 0438760844
E-mail Address acechem@bigpond.com

Recommended use of the chemical and restrictions on use Oxidising agent.

Other Names	Name	Product Code
	COBALT (II) NITRATE	C551782
	Cobaltous nitrate	C551782
	Cobalt (II) Nitrate Hexahydrate	C551782

Other Information Ace Chemical Company has taken care in compiling this information. No liability is accepted whether direct or indirect from its application since the conditions of final use are outside Ace Chemical Companies control.

Section 2 - Hazard(s) Identification

GHS Classification of the Substance/Mixture Acute toxicity: Category 4 - Oral
Carcinogenicity: Category 1B
Eye damage/irritation: Category 1
Germ cell mutagenicity: Category 2
Hazardous to the Aquatic Environment - Acute Hazard: Category 1
Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1
Oxidising solids: Category 2
Reproductive toxicity: Category 1B
Sensitisation - respiratory: Category 1
Sensitisation - skin: Category 1
Specific target organ toxicity (repeated exposure): Category 2

Signal Word DANGER

Hazard Statement (s) H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
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.
H350 May cause cancer.
H360 May damage fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Pictogram (s) Exclamation mark, Health hazard, Corrosion, Environment, Flame over circle



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Precautionary Statement – 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, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 Keep away from clothing and other combustible materials. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash 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/hearing protection. P284 [In case of inadequate ventilation] wear respiratory protection.
Precautionary Statement – Response	P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 IF exposed or concerned: Get medical advice/attention. P310 Immediately call a POISON CENTER/doctor. P314 Get medical advice/attention if you feel unwell. P321 Specific treatment (see on this label). P330 Rinse mouth. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor. P362+P364 Take off contaminated clothing and wash it before reuse. P370+P378 In case of fire: Use to extinguish. P391 Collect spillage. P405 Store locked up.
Precautionary Statement – Storage	
Precautionary Statement – Disposal	P501 Dispose of contents/container to .
Other Information	Material may cause sensitisation by skin contact and inhalation.

Section 3 - Composition and Information on Ingredients

Ingredients	Name	CAS	Proportion
	Cobalt (Ii) Nitrate	10141-05-6	100 %

Section 4 - First Aid Measures

Inhalation	Remove the source of contamination or move the victim to fresh air. Have victim blow nose to remove any dust. Ensure airways are clear and have a qualified person give oxygen through a face mask if breathing is difficult. If victim has stopped breathing begin artificial respiration, or if heart has stopped, cardiopulmonary resuscitation (CPR). Seek medical attention.
Ingestion	Immediately wash out mouth with water, and then give plenty of water to drink. Seek medical attention.
Skin	Remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with water and non-abrasive soap. Ensure contaminated clothing is washed before re-use or discard. If contact is more than of minor nature, seek medical attention.
Eye	If in eye(s) wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek medical attention.
First Aid Facilities	Safety showers, eye wash fountains, and normal wash room facilities.
Advice to Doctor	Treat symptomatically or consult a Poison Information Centre.

Section 5 - Firefighting Measures

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Suitable Extinguishing Media Use foam, carbon dioxide, dry powder or water spray. DO NOT USE HALOGENATED-TYPE EXTINGUISHERS as catalytic decomposition of the extinguishing medium may well occur with the producing of toxic gases including phosgene.

Specific Methods Wear Self-Contained Breathing Apparatus (S.C.B.A) and full protective clothing to minimise skin exposure.

Specific Hazards Arising from the Chemical This material is an oxidising agent and may assist combustion.

Hazchem Code 1[Z]

Section 6 - Accidental Release Measures

Spills & Disposal Remove all combustible material. Increase ventilation. Evacuate all unnecessary personnel. Wear Self-Contained Breathing Apparatus (S.C.B.A) and full protective clothing to minimise skin exposure. Dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container. Use absorbent paper dampened with water to pick up remaining material. Wash surfaces well with soap and water. Seal all wastes in vapour tight plastic bags for eventual disposal. If large quantities of this material enter the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

Section 7 - Handling and Storage

Precautions for Safe Handling Avoid generating dust. Use small amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Label containers. Keep containers closed when not in use. Wear appropriate protective equipment to prevent inhalation, skin and eye contact. Ensure a high level of personal hygiene is maintained when using this product. That is; always wash hands before eating, drinking, smoking or using the toilet.

Conditions for safe storage, including any incompatibilities Best stored in moisture-tight containers as this material is deliquescent. Store away from combustible material. Store in suitable, labelled containers. Storage in brown glass bottles under a nitrogen or other inert atmosphere is recommended. Keep containers tightly closed when not in use and when empty. Protect from damage. Use suitable, approved storage cabinets, tanks, rooms and buildings. Avoid any dust build-up by frequent cleaning and suitable construction of storage area. Limit quantity of material in storage. Keep storage separate from populated work areas. Inspect periodically for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area.

Section 8 - Exposure Controls and Personal Protection

Occupational Exposure Limit (OEL) Values	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Cobalt (Ii) Nitrate			0.05		Cobalt, metal dust or fume, (as Co), sensitiser

Other Exposure Information

Engineering Controls Engineering control methods to reduce hazardous exposures are preferred. Methods include mechanical ventilation (dilution and local exhaust), process or personnel enclosure, control of process conditions, and process modification (e.g. substitution of a less hazardous material). Administrative controls and personal protective equipment may also be required. Local exhaust ventilation or process enclosure may be necessary for processes where the material is heated or a mist created. Supply sufficient replacement air to make up for air removed by exhaust systems.

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Personal Protective Equipment RESPIRATORY PROTECTION: The use of a Class P2 full facepiece respirator with replaceable filter complying with AS/NZS 1715 and AS/NZS 1716 is recommended.
EYE PROTECTION: The use of face shields, chemical goggles, or safety glasses with side shield protection is recommended.
HAND PROTECTION: The use of Nitrile rubber gloves is recommended.
CLOTHING: The use of plastic apron, sleeves, overalls, and rubber boots are recommended.

Section 9 - Physical and Chemical Properties

Appearance Red crystals.
Melting Point below 100°C; - 3 H₂O @ 55°C
Boiling Point Not available
Solubility in Water Not available
Specific Gravity 1.87 (water=1)
Vapour Pressure Not available
Flash Point Not applicable
Flammability Not combustible. This material is an oxidising agent and may assist combustion. The possibility of toxic fumes in the event of a fire should be considered.
Flammable Limits - Lower Not applicable
Flammable Limits - Upper Not applicable
Molecular Weight 291.03

Section 10 - Stability and Reactivity

Hazardous Decomposition Products Dangerous, due to fire hazard. On decomposition, may evolve toxic fumes.

Section 11 - Toxicological Information

Ingestion Harmful if swallowed. May cause irritation to the mouth, esophagus, and stomach. In animals, administration of cobalt salts produces polycythemia; in humans, a single case of poisoning, liver and kidney damage has been attributed to cobalt. Symptoms may include nausea, vomiting, and abdominal pains.
Inhalation Harmful if inhaled. Will cause irritation to the mucous membrane and upper airways. May cause pulmonary symptoms.
Skin Will cause irritation in contact with the skin, which may result in redness, itchiness, and possible dermatitis.
Eye Will cause irritation to the eyes, which will result in redness, lachrymation, and corneal injury.
Chronic Effects Chronic exposure may cause hypersensitivity, resulting in dermatitis and other skin problems.
Cobalt compounds are suspected carcinogens of the connective tissue and lungs.

Section 12 - Ecological Information

Section 13 - Disposal Considerations

Waste Disposal Disposal of this material should be undertaken by a registered chemical disposal company.

Section 14 - Transport Information

Transport Information This material is classified as a Class 5.1 Dangerous Good according to the Australian Code for the Transport of Dangerous Goods. Class 5.1 oxidising agents shall not be loaded or packed in the same vehicle or freight as, Explosives (class 1), Flammable Gases (class 2.1), Poisonous Gases (class

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2.3), Flammable Liquids (class 3), Flammable Solids (4.1), Spontaneously Combustible Substances (class 4.2), Dangerous When Wet Substances (class 4.3), Organic Peroxides (5.2), Poisonous (toxic) Substance (class 6) (where the poisonous substances are fire risk substances), Radioactive Substances (class 7), Corrosive Substances (class 8), Miscellaneous Dangerous Goods (class 9) (where the miscellaneous dangerous goods are fire risk substances), and fire risk substances other than dangerous goods.

ADG UN Number

1477

ADG Proper Shipping Name

NITRATES, INORGANIC, N.O.S.

ADG Transport Hazard Class

5.1

ADG Packing Group

II

Hazchem Code

1[Z]

EPG Number

5A1

IERG Number

31

Section 15 - Regulatory Information

Poisons Schedule Not Scheduled

Packaging & Labelling

As required by the ADG Code.

As required by the National Code of Practice for the Labelling of Workplace Substances.

Section 16 - Any Other Relevant Information

Literature References

Sax, N. Irving, 'Dangerous Properties of Industrial Materials', Van Nostrand Reinhold (1984)

Contact Person/Point

Ace Chemical Company
119A Mooringe Avenue
Camden Park S.A. 5038
Tel: 08-8376 0844 Fax: 08-8295 8563
or Poisons Information Centre
Tel: 13 11 26

Disclaimer:

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Empirical Formula & Structural Formula

Co (NO₃)₂ · 6 H₂O

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