

# Safety Data Sheet



## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** **COBALT SULPHATE**

**Other name(s):** Cobalt sulfate; Cobalt (II) sulfate; Cobaltous sulfate.

**Recommended Use of the Chemical and Restrictions on Use** Catalyst; foam stabiliser; pigment; stock feed nutrient.

**Supplier:** Ixom Operations Pty Ltd (Incorporated in Australia)  
**NZBN:** 9429041465226  
**Street Address:** 166 Totara Street  
Mt Maunganui South  
New Zealand

**Telephone Number:** +64 9 368 2700  
**Facsimile:** +64 9 368 2710  
**Emergency Telephone:** **0 800 734 607 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## 2. HAZARDS IDENTIFICATION

Classified as a Dangerous Good according to NZS 5433:2012 Transport of Dangerous Goods on Land.

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

**SIGNAL WORD:** DANGER

### Subclasses:

- Subclass 6.1 Category D - Substances which are acutely toxic.
- Subclass 6.3 Category A - Substances that are irritating to the skin.
- Subclass 6.4 Category A - Substances that are irritating to the eye.
- Subclass 6.5 Category A - Substances that are respiratory sensitisers.
- Subclass 6.5 Category B - Substances that are contact sensitisers.
- Subclass 6.7 Category B - Substances that are suspected human carcinogens.
- Subclass 6.8 Category B - Substances that are suspected human reproductive or developmental toxicants.
- Subclass 6.9 Category A - Substances that are toxic to human target organs or systems.
- Subclass 9.1 Category A - Substances that are very ecotoxic in the aquatic environment.
- Subclass 9.3 Category B - Substances that are ecotoxic to terrestrial vertebrates.

Approval Number: HSR002765



### 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.

*Product Name:* COBALT SULPHATE  
*Substance No:* 000031008201

*Issued:* 29/08/2019  
*Version:* 5

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## Precautionary Statement(s):

### Prevention:

P102 Keep out of reach of children.  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust.  
P264 Wash hands 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.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P281 Use personal protective equipment as required.  
P285 In case of inadequate ventilation wear respiratory protection.  
P273 Avoid release to the environment.

### Response:

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 Rinse mouth.  
P304+P341 IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.  
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P321 Specific treatment (see First Aid Measures on the Safety Data Sheet).  
P363 Wash contaminated clothing before re-use.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P391 Collect spillage.

### Storage:

P405 Store locked up.

### Disposal:

P501 In case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Notice 2017. This may also include any method of disposal that must be avoided.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Cobalt sulfate	10124-43-3	100%	H350i H341 H360F H372 H302 H334 H317 H319 H410

## 4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

### Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

### Skin Contact:

If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water and soap. If swelling, redness, blistering or irritation occurs seek medical assistance.

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## Eye Contact:

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

## Ingestion:

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

## Indication of immediate medical attention and special treatment needed:

Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

### Suitable Extinguishing Media:

Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

**Hazchem or Emergency Action Code:** 2Z

### Specific hazards arising from the chemical:

Non-combustible material. Environmentally hazardous.

### Special protective equipment and precautions for fire-fighters:

Decomposes on heating emitting toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

## 6. ACCIDENTAL RELEASE MEASURES

### Emergency procedures/Environmental precautions:

Clear area of all unprotected personnel. Do not allow container or product to get into drains, sewers, streams or ponds. If contamination of sewers or waterways has occurred advise local emergency services.

### Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Avoid skin and eye contact and breathing in dust. Avoid handling which leads to dust formation. When using do not eat, drink or smoke. Wash hands thoroughly after handling.

**Conditions for safe storage, including any incompatibilities:** Store in a cool, dry, well ventilated place. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Workplace Exposure Standards:** No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority. However, Workplace Exposure Standard(s) for constituent(s):

Cobalt metal dust & fume, as Co: WES-TWA 0.02 mg/m<sup>3</sup>, 6.7B Suspected human carcinogen, bio, skin, sen

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As published by the New Zealand Workplace Health & Safety Authority.

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

Carcinogen Category 6.7B - Suspected human carcinogen.

'bio' - Biological Exposure Index.

'Skin' Notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

'Sen' Notice - sensitiser. A substance that can 'sensitise' the respiratory system, including a state of hypersensitivity to it, so that on subsequent exposures, an allergic reaction can occur (which would not develop in non-sensitised individuals). It is uncommon to become sensitised to a compound after just a single reaction to it.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

## Appropriate engineering controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

## Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, CHEMICAL GOGGLES, SAFETY SHOES, FACE SHIELD OR AIR MASK, GLOVES (Long).

\* Not required if wearing air supplied mask.



Wear overalls, impervious gloves and a positive pressure air supplied full-face respirator. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Solid  
**Colour:** Dark Red Brown  
**Odour:** Odourless

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<b>Molecular Formula:</b>	CoSO <sub>4</sub>
<b>Solubility:</b>	Soluble in water.
<b>Specific Gravity:</b>	1.95 @20°C
<b>Relative Vapour Density (air=1):</b>	>1
<b>Vapour Pressure (20 °C):</b>	Not available
<b>Flash Point (°C):</b>	Not applicable
<b>Flammability Limits (%):</b>	Not applicable
<b>Autoignition Temperature (°C):</b>	Not applicable
<b>Melting Point/Range (°C):</b>	98
<b>Decomposition Point (°C):</b>	735
<b>pH:</b>	ca. 4 (100 g/L, 20°C)

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No information available.
<b>Chemical stability:</b>	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerisation will not occur.
<b>Conditions to avoid:</b>	Avoid dust generation.
<b>Incompatible materials:</b>	Incompatible with strong oxidising agents , tert-butyl hydroperoxide .
<b>Hazardous decomposition products:</b>	Oxides of sulfur.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

<b>Ingestion:</b>	Swallowing can result in nausea, vomiting, diarrhoea, and abdominal pain.
<b>Eye contact:</b>	An eye irritant.
<b>Skin contact:</b>	Contact with skin may result in irritation. A skin sensitizer. Repeated or prolonged skin contact may lead to allergic contact dermatitis.
<b>Inhalation:</b>	Breathing in dust may result in respiratory irritation. A respiratory sensitizer. Can cause possible allergic reactions, producing asthma-like symptoms.
<b>Acute toxicity:</b>	
Oral LD50 (rat):	424 mg/kg.
Oral LD50 (mice):	584 mg/kg.
<b>Serious eye damage/irritation:</b>	Moderate irritant (rabbit).
<b>Respiratory or skin sensitisation:</b>	A skin sensitizer (guinea pig).

**Chronic effects:** Available evidence indicates that the product is an animal carcinogen and therefore should be considered a possible human carcinogen.

Chronic exposure may result in damage to the kidneys , lungs, heart, thyroid, skin, pancreas.

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<b>Mutagenicity:</b>	Suspected of causing genetic defects.
<b>Carcinogenicity:</b>	May cause cancer by inhalation.
<b>Reproductive toxicity:</b>	May damage fertility.
<b>Specific Target Organ Toxicity (STOT) - single exposure:</b>	No information available.
<b>Specific Target Organ Toxicity (STOT) - repeated exposure:</b>	Causes damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard:</b>	No information available.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Avoid contaminating waterways.
<b>Persistence/degradability:</b>	Biodegradation is not an applicable endpoint since the product is an inorganic chemical.
<b>Bioaccumulative potential:</b>	Does not bioaccumulate.
<b>Mobility in soil:</b>	No information available.
<b>Aquatic toxicity:</b>	Very toxic to aquatic organisms. May cause long lasting harmful effects to aquatic life.

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods:

Refer to local government authority for disposal recommendations. Dispose of contents/container in accordance with local/regional/national/international regulations.

## 14. TRANSPORT INFORMATION

### Road and Rail Transport

Classified as a Dangerous Good according to NZS 5433:2012 Transport of Dangerous Goods on Land.



<b>UN No:</b>	3077
<b>Transport Hazard Class:</b>	9 Miscellaneous Dangerous Goods
<b>Packing Group:</b>	III
<b>Proper Shipping Name or Technical Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COBALT SULFATE)
<b>Hazchem or Emergency Action Code:</b>	2Z

### Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

<b>UN No:</b>	3077
<b>Transport Hazard Class:</b>	9 Miscellaneous Dangerous Goods
<b>Packing Group:</b>	III

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**Proper Shipping Name or Technical Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COBALT SULFATE)

**IMDG EMS Fire:** F-A  
**IMDG EMS Spill:** S-F

## **Air Transport**

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

**UN No:** 3077  
**Transport Hazard Class:** 9 Miscellaneous Dangerous Goods  
**Packing Group:** III  
**Proper Shipping Name or Technical Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COBALT SULFATE)

## **15. REGULATORY INFORMATION**

### **Classification:**

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

### **Subclasses:**

Subclass 6.1 Category D - Substances which are acutely toxic.  
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## **16. OTHER INFORMATION**

Supplier Safety Data Sheet; 03/ 2018.

This safety data sheet has been prepared by Ixom Operations Pty Ltd (Toxicology & SDS Services).

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## **Reason(s) for Issue:**

5 Yearly Revised Primary SDS  
Change in Hazardous Chemical Classification  
Update in Toxicological Information

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.