
1. IDENTIFICATION AND SUPPLIER

1.1) Product Identifier

Product Name: Cobalt Sulphate, heptahydrate
Synonym(s): Cobalt sulfate heptahydrate

1.2) Uses

Intended Use: For Fertiliser

1.3) Supplier Details

Supplier Name: Dickie Direct Ltd
Supplier Address: 25 Railway Rd, Whakatu, Hastings
4172
Supplier Contact: 0800 4 DICKIE (4 34254)
Supplier Website: www.dickiedirect.co.nz

1.4) Emergency Contact Numbers

National Poisons Information Centre: 0800 POISON (764 766)
Emergency (In Storage): 0800 CHEMCALL (243 622)
Emergency (In Transit): 111 (Advise of Fire, Ambulance or
Police)

2. HAZARDS IDENTIFICATION

2.1) Classification of Substance

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Classified as Dangerous Goods for transport purposes.

2.2) Hazard Classification

Acute Tox. 4 Substances that are acutely toxic, harmful if swallowed.
Skin Irrit. 2 Substances that cause skin irritation.
Eye Irrit. 2 Substances that cause serious eye irritation.
Resp. Sens. 1 Substances that cause symptoms if inhaled.
Skin Sens. 1 Substances that may cause an allergic skin reaction.
Repr. 2 Substances that may damage fertility or the unborn child.
Carc. 2 Substances that may cause cancer.
STOT Single Exp.3 Substances that may cause respiratory irritation.

| | |
|-------------------|--|
| STOT Rep. Exp. 1 | Substances that may cause damage to organs (kidney & liver) through prolonged or repeated exposure through oral ingestion. |
| Aquatic Acute 1 | Substances that is very toxic to aquatic life. |
| Aquatic Chronic 1 | Substances that is very toxic to aquatic life with long lasting effects. |

3. COMPOSITION INFORMATION

3.1) Substances and Mixtures

| | |
|-------------|------------------------------------|
| Ingredient: | Cobalt (II) Sulphate, heptahydrate |
| CAS NO: | 10026-24-1 |
| Content | >99% |

4. FIRST AID MEASURES

| | |
|-----------------------|---|
| Eyes: | If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by the National Poisons Information Centre, a doctor, or for at least 15 minutes. Seek medical attention immediately. |
| Inhalation: | If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. Seek medical attention immediately. |
| Skin: | If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by the National Poisons Information Centre or a doctor. |
| Ingestion: | For advice, contact the National Poison Information Centre 0800 764 766 or a doctor (at once). If swallowed, do not induce vomiting. Seek medical attention immediately. |
| First aid facilities: | Drinking water and eye-wash bottles should be available. |

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Use extinguishing media suitable for surrounding area.

5.2 Special hazards arising from the substance or mixture

Non-flammable / non-combustible. May evolve toxic fumes under fire conditions (e.g., sulfur oxides and cobalt oxides).

5.3 Advice for Firefighters

No fire or explosion hazard exists. Toxic gases may be evolved in a fire situation.

5.4 Hazchem Code

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.
Ventilate area where possible.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning

Contain spillage, then collect and place in suitable containers for disposal. Avoid generating dust.

6.4 Reference to other Sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Store tightly sealed in a cool, dry, well-ventilated area, removed from incompatible substances and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills.

7.3 Specific end use(s)

Intended for use as a fertiliser.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

No exposure standards have been entered for this product.

Biological limits

No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering controls

Avoid inhalation. Use in well-ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain dust levels below the recommended exposure standard.

PPE

Eye / Face

Wear dust-proof goggles.

Hands

Wear PVC or rubber gloves.

Body

When using large quantities or where heavy contamination is likely, wear coveralls.

Respiratory

At high dust levels, wear a Class P1 (Particulate) respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|---------------------------|--------------------------------------|
| Appearance: | RED / ROSE |
| Odour: | ODOURLESS |
| Flammability: | NON-FLAMMABLE |
| Flash point | NOT RELEVANT |
| Boiling point | NOT RELEVANT |
| Melting point | >41°C (Release of crystalline water) |
| Evaporation rate | NOT RELEVANT |
| pH | NOT RELEVANT |
| Vapour density | NOT AVAILABLE |
| Specific gravity | 1.95 |
| Vapour pressure | NOT RELEVANT |
| Upper explosion limit | NOT RELEVANT |
| Lower explosion limit | NOT RELEVANT |
| Partition coefficient | NOT AVAILABLE |
| Autoignition temperature | NOT AVAILABLE |
| Decomposition temperature | >735°C |
| Viscosity | NOT AVAILABLE |
| Explosive properties | NOT AVAILABLE |
| Oxidising properties | NOT AVAILABLE |
| Odour threshold | NOT AVAILABLE |

9.2 Other information

| | |
|-------------|---------------|
| Density | NOT AVAILABLE |
| % Volatiles | NOT RELEVANT |

10. STABILITY AND REACTIVITY

10.1) Chemical stability

Stable under recommended conditions of storage.

10.2) Possibility of hazardous reactions

Polymerization is not expected to occur.

10.3) Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.
Releases water of crystallisation when heated.

10.4) Incompatible materials

Avoid or control reaction with peroxides.

10.5) Hazardous decomposition products

Sulphur oxides.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Health hazard summary

This product may present a hazard with direct eye contact, prolonged skin contact or with dust inhalation at high levels. May cause damage to organs through prolonged or repeated exposure. Chronic exposure can lead to kidney damage, liver enlargement, jaundice and nervous system damage, dermatitis.

Eye

Contact may result in severe irritation.

Inhalation

Low irritant. Over exposure may result in irritation of the nose and throat, with coughing. Inhalation of large amounts may lead to symptoms shown for ingestion.

Skin

May cause inflammation.

Ingestion

May be harmful. Animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.

12. ECOLOGICAL INFORMATION

12.1) Hazard Classifications

Aquatic Chronic 2 Substances that is very toxic to aquatic life with long lasting effects.

13. DISPOSAL INFORMATION

13.1 Waste treatment methods

Product Disposal

Reuse or recycle where possible or apply excess product at recommended rates to appropriate land.

Packaging (Bulk Bag) Disposal

Ensuring bulk bags are completely empty and recycle where possible.

14. TRANSPORT INFORMATION

| | |
|-----------------------|--|
| UN Number: | 3077 |
| Proper Shipping Name: | Environmentally Hazardous Substance, Solid N.O.S |
| Hazard Class: | Class 9 |
| Packing Group: | Group III - Substances presenting low danger |

15. REGULATORY INFORMATION

15.1) Regulatory Publications Reference

New Zealand Inventory of Chemicals
New Zealand HSNO Act

16. OTHER INFORMATION

Additional information

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

EXPOSURE STANDARD: Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: Strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES: The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used,

product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE: It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.