



# Material Safety Data Sheet

## HAZARDOUS

Catalog Number: 201927

Revision date: 18-Mar-2005

Australia Hazardous Statement: **Hazardous according to criteria of NOHSC**

### 1. COMPANY DETAILS

**Supplier:** MP Biomedicals Australasia Pty Limited  
Unit 12, 167 Prospect Hwy.  
Seven Hills, NSW 2147 Aust.

**Telephone Number:** (02) 9838 7422

**Fax Number:** (02) 9838 7390

**Emergency telephone number:** (02) 9838 7422: hours: 8.30 AM to 5.00 PM

**Australian Business Number (ABN):** 31 106 467 109

### 2. IDENTIFICATION

**Product name:** COBALTOUS CYANIDE 3H2O

**Catalog Number:** 201927

**Synonyms:** Cobalt cyanide; Cobalt dicyanide; Cobalt (II) cyanide

**UN/Id No:** 1588

**Proper shipping name:** Cyanides, inorganic, solid, n.o.s.

**IATA Hazard Label(s):** Toxic

**Hazard Class:** 6.1

**-** Toxic substances - oral

**Subsidiary risk:** No Subsidiary Risk allocated

**Packing group:** III

**Emergency Action Code (Hazchem code):** 2X

**Poisons schedule No. (Aust)/Toxic Substance (NZ):** S6 Poison.

**Recommended use:** Research product for non-human use

**Component** **Australia (AICS):**  
COBALTOUS CYANIDE Present  
542-84-7 (100)

### 3. PHYSICAL DESCRIPTION/PROPERTIES

**Physical state:** Solid

**Formula:** C2CoN2

**Molecular weight:** 110.967

**Boiling point/range:** Not determined

**Melting point/range:** Not determined

**Density:** Not determined

**Vapor pressure:** Not determined

**Solubility (in water):** Not determined

**Flash point:** Not determined

**Autoignition temperature:** Not determined  
**Flammable limits in air - lower (%):** Not determined  
**Flammable limits in air - upper (%):** Not determined

#### 4. INGREDIENTS

Components	CAS Number	Weight %	EC No.	Classification
COBALTOUS CYANIDE	542-84-7	100	208-830-7	T; N

#### 5. HAZARDS IDENTIFICATION

**Australia Hazardous Statement:** Hazardous according to criteria of NOHSC



**Indication of Danger:**

N - Dangerous For The Environment.  
 T - Toxic.

**Risk Phrases:**

R40 - Limited evidence of a carcinogenic effect.

R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R42/43 - May cause sensitization by inhalation and skin contact.

**Safety Phrases:**

S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.

S28 - After contact with skin, wash immediately with plenty of water.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

**Category of Danger:** Dangerous for the environment , Toxic , Carc. cat. 2 , Respiratory Sensitizer , Skin Sensitizer

**Poisons schedule No. (Aust)/Toxic Substance (NZ):** S6 Poison.

#### 6. HEALTH HAZARD INFORMATION

##### HEALTH EFFECTS

**EMERGENCY OVERVIEW:**

Harmful to flora, fauna, soil organisms and aquatic organisms. Toxic: danger of very serious irreversible effects if swallowed. May also have serious irreversible effects through skin contact or inhalation. Possible Carcinogen May cause sensitization by skin contact May cause allergic respiratory reaction.

**Principle routes of exposure:**

**Inhalation:**

Skin

May be toxic via inhalation of dust. May cause allergic respiratory reaction

**Ingestion:**

Toxic: danger of very serious irreversible effects if swallowed.

**Skin contact:**

Toxic: danger of serious damage to health by prolonged skin contact. May be fatal if absorbed through skin May cause allergic skin reaction

**Eye contact:** Avoid contact with eyes  
**Statements of hazard** Toxic if swallowed MAY BE FATAL IF ABSORBED THROUGH SKIN. MAY CAUSE ALLERGIC RESPIRATORY REACTION. MAY CAUSE ALLERGIC SKIN REACTION.

Components	Australian Exposure Standards - Carcinogens	Australia - Exposure Standards - Short
COBALTOUS CYANIDE	Not Listed	Not Listed

Components	Australia - Exposure Standards - Skin E	Australia - Exposure Standards - Time W
COBALTOUS CYANIDE	Not Listed	= 0.05 mg/m <sup>3</sup> TWA metal dust and fume

## FIRST AID

**General advice:** In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
**Inhalation:** Move to fresh air. Call a physician immediately.  
**Skin contact:** Rinse immediately with plenty of water and seek medical advice  
**Ingestion:** Do not induce vomiting without medical advice.  
**Eye contact:** In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**Protection of first-aiders:** No information available  
**Notes to physician:** None  
**Medical conditions aggravated by exposure:** None known

## 7. PRECAUTIONS FOR USE

Components	Australian Exposure Standards - TWA	Australian Exposure Standards - Carcinogens	Australian List of Designated Hazardous
COBALTOUS CYANIDE			Self classification required

**Section 8 Notes:** TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge this concentration should neither impair the health or, not cause undue discomfort to, nearly all workers.

**Engineering measures:** Ensure adequate ventilation.

## PERSONAL PROTECTIVE EQUIPMENT

**Respiratory protection:** Self-contained breathing apparatus

**Hand protection:** Pvc disposable gloves

**Skin and body protection:** Usual safety precautions while handling the product will provide adequate protection against this potential effect.

**Eye protection:** Safety glasses

**Hygiene measures:** Avoid contact with skin, eyes and clothing.



## 8. SAFE HANDLING INFORMATION

**Storage:**

ROOM TEMPERATURE

**Handling:** Use only in area provided with appropriate exhaust ventilation.  
**Safe handling advice:** Wear personal protective equipment.

**Stability:** Stable under recommended storage conditions.  
**Polymerization:** None under normal processing.  
**Hazardous decomposition products:** Nitrogen oxides (NOx)/ammonia/CN-  
**Materials to avoid:** Oxidising agents Acids Bleach  
**Conditions to avoid:** Exposure to air or moisture over prolonged periods.

**Spills and Disposal:**

**Personal precautions:** Use personal protective equipment.  
**Environmental precautions:** Prevent product from entering drains.  
**Methods for cleaning up:** Sweep up and shovel into suitable containers for disposal.  
**Waste from residues / unused products:** Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.  
**Contaminated packaging:** Do not re-use empty containers

**Fire/Explosion Hazards:**

**Suitable extinguishing media:** Use dry chemical, CO2, water spray or "alcohol" foam  
**Specific hazards:** Burning produces irritant fumes.  
**Unusual hazards:** None known  
**Special protective equipment for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear  
**Specific methods:** Water mist may be used to cool closed containers.

**9. TOXICOLOGICAL INFORMATION**

**Product Information**

**Acute toxicity**

Components	RTECS Number:	Selected LD50s and LC50s
COBALTOUS CYANIDE	Not Available	= 6171 mg/kg Oral LD50 Rat

**Chronic toxicity:** Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.  
**Local effects:** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.  
**Specific effects:** May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache.  
**Carcinogenic effects:** No data is available on the product itself.  
**Mutagenic effects:** No data is available on the product itself.  
**Reproductive toxicity:** No data is available on the product itself.

Components	NIOSH - Health Effects	NIOSH - Target Organs
COBALTOUS CYANIDE		respiratory system, skin

## 10. ECOLOGICAL INFORMATION

**Mobility:** No data available  
**Bioaccumulation:** No data available  
**Ecotoxicity effects:** No data available  
**Aquatic toxicity:** May cause long-term adverse effects in the aquatic environment.

Components	U.S. DOT - Appendix B - Marine Pollutan	U.S. DOT - Appendix B - Severe Marine Pollutants	United Kingdom - The Red List:
COBALTOUS CYANIDE	Not Listed	Not Listed	Not Listed

Components	Germany VCI (WGK)	World Health Organization (WHO) - Drinking Water	Ecotoxicity - Fish Species Data
COBALTOUS CYANIDE	Not Listed	Not Listed	Not Listed

Components	Ecotoxicity - Freshwater Algae Data	Ecotoxicity - Microtox Data	Ecotoxicity - Water Flea Data
COBALTOUS CYANIDE	Not Listed	Not Listed	Not Listed

Components	EPA - ATSDR Priority List	EPA - HPV Challenge Program Chemical List	California - Priority Toxic Pollutants
COBALTOUS CYANIDE	Rank (of 275): 049	Not Listed	Not Listed

Components	California - Priority Toxic Pollutants	California - Priority Toxic Pollutants
COBALTOUS CYANIDE	Not Listed	Not Listed

## 11. TRANSPORT INFORMATION

### IMDG/IMO

**Proper shipping name:** Cyanides, inorganic, solid, n.o.s.  
**IMDG - Hazard Classifications:** Not Applicable  
**IMDG - Marine Pollutants:** Not Applicable  
**IMDG - Marine Pollutants:** Not Applicable  
**IMDG - Regulated Substances:** Not Applicable  
**IMDG - Severe Marine Pollutants:** Not Applicable

### IMO-labels:

**Packing group:** III  
**Proper shipping name:** Cyanides, inorganic, solid, n.o.s.  
**UN/Id No:** 1588

### ADR/RID

**Australia Hazardous Statement:** Hazardous according to criteria of NOHSC  
**Hazard Class:** 6.1  
**Item:** COBALTOUS CYANIDE 3H2O  
**ADR/RID-labels:** Miscellaneous  
**UN/Id No:** 1588  
**Emergency Action Code (Hazchem code):** 2X  
**Proper shipping name:** Cyanides, inorganic, solid, n.o.s.

### ICAO:

<b>Hazard Class</b>	6.1
<b>Packing group:</b>	III
<b>Proper shipping name:</b>	Cyanides, inorganic, solid, n.o.s.

## 12. REGULATORY INFORMATION

### International inventories:

COBALTOUS CYANIDE

<b>Australia (AICS):</b>	Present
<b>Inventory - China:</b>	Present
<b>EU EINECS List -</b>	208-830-7 231-158-0
<b>Korean KECL:</b>	KE-06060 KE-06092

**Philippines PICCS:** Present

### **Indication of Danger:**

N - Dangerous For The Environment.

T - Toxic.



**Risk Phrases:** R40 - Limited evidence of a carcinogenic effect.

### **Risk Combination Phrases**

R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R42/43 - May cause sensitization by inhalation and skin contact.

**Safety Phrases:** S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.

S28 - After contact with skin, wash immediately with plenty of water.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

### **Safety Combination Phrases:**

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

**Poisons schedule No. (Aust)/Toxic Substance (NZ):** S6 Poison.

## 13. OTHER INFORMATION

**Prepared by:** Health & Safety

**Disclaimer:** The information and recommendations contained herein are based upon tests believed to be reliable. However, MP Biomedicals does not guarantee the accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage maybe required. MP Biomedicals assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

**End of Safety Data Sheet**