

# Electrolytic Cobalt Rounds

## Product Information

Electrolytic Cobalt Rounds

Vale Canada Limited  
200 Bay Street, Royal Bank Plaza  
Suite 1600, South Tower, P.O. Box 70  
Toronto, Ontario, Canada M5J 2K2

Chemtrec 24 hr Emergency No. 1-800-424-9300  
WHMIS Classification: D2B

Electrolytic Cobalt Rounds are used in the production of super alloys, heat and wear resistant alloys, tool steels, magnetic alloys and have many other chemical applications such as catalysts and dryers and in electrolytic plating.

## Hazardous Ingredients

Hazardous Ingredients	Composition (%)	C.A.S. No	Exposure Limit (TLV) <sup>1,2</sup> –mg/m <sup>3</sup>
Cobalt (Co)	99.9	7440-48-4	0.02

## Physical Data

Silver grey, odourless metal discs of approximately 1 in. (25 mm) diameter.

Ingredient	Mol. Wt.	Specific Gravity	Melting point (°C)	Boiling point (°C)	Solubility in H2O (g/100ml)
Cobalt	58.93	8.9	1495	2900	0

## Fire or Explosion Hazard

Not applicable.

## Reactivity Data

Like other metals, cobalt can react with acids to liberate hydrogen gas which can form explosive mixtures in air.

## Toxicological Properties<sup>3</sup>

### Cobalt

Acute Toxicity:

- a) Oral: Non toxic - LD50 ORAL RAT 7510 mg/kg
- b) Inhalation: Low acute toxicity. Main Symptoms: Cough, Sore throat, Wheezing, Increased difficulty in breathing.
- c) Dermal: LD50(Dermal) >2000mg/kg. Low acute toxicity.

**Corrosivity/Irritation:**

- a) Respiratory Tract: None
- b) Skin: No data. Not classified. See sensitization section.
- c) Eyes: Low acute toxicity. Main Symptoms: Redness. Mechanical irritation may be expected.

**Sensitization:**

- a) Respiratory tract: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- b) Skin: May cause an allergic skin reaction. Repeated contact with metallic cobalt can cause cobalt sensitivity and allergic skin rashes.
- c) Preexisting conditions: Sensitized individuals may experience an allergic skin rash or asthma.

**Chronic toxicity:**

- a) Oral: No information available
- b) Inhalation: No information available
- c) Dermal: No information available

**Mutagenicity /**

**Reproductive toxicity:** No data. Not classified.

**Carcinogenicity:**

- a) Ingestion: No data. Not classified.
- b) Inhalation: No data. Not classified.

## Preventative Measures

If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne cobalt below the exposure limit. If ventilation alone cannot so control exposure, use NIOSH-approved respirators selected according to the current edition of the Selection, Care and Use of Respirators CSA Z94.4.

Avoid repeated skin contact. Wear suitable gloves. Wash thoroughly after handling. Launder Clothing and gloves as needed.

Do not store near acids. If spilled, pick up and place in original container. Cobalt-containing waste is normally collected to recover cobalt values. Should waste disposal be deemed necessary, follow the relevant governmental regulations.

## First Aid Measures

For skin rashes, seek medical attention. Cleanse wounds thoroughly to remove any particles.

## Preparation Information

Prepared by: Vale Canada Limited  
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Product Stewardship (416) 361-7801

SDS available online at [www.vale.com](http://www.vale.com)

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**Note:**

***Vale Canada Limited believes that the information in this Safety Data Sheet is accurate. However, Vale Canada Limited makes no express or implied warranty as to the accuracy of such information and expressly disclaims any liability resulting from reliance on such information.***

**Footnotes:**

- 1 *Threshold Limit Value of the American Conference of Governmental Industrial Hygienists.*
- 2 *Exposure Limits for user operations will depend on the relevant governmental regulations.*
- 3 *Describes possible health hazards of the product supplied. If user operations change it to other chemical forms, whether as end products, intermediates or fugitive emissions, the possible health hazards of such forms must be determined by the user.*