

## Safety Data Sheet

<b>TA Instruments Inc.</b> 159 Lukens Drive New Castle, DE 19720 U.S.A. Tel: +1 302-427-4000 FAX: +1 302-427-4001 www.tainstruments.com	<b>EU: TA Instruments, A Division of Waters NV/SA</b> <b>ConneXion Business Park</b> Brusselsesteenweg 500 B-1731 Zellik, Belgium Phone: 32/2 706 00 80 Fax: 32/2 706 00 81 Email: Belgium@tainstruments.com	<b>FOR CHEMICAL EMERGENCY</b> 24 Hours per Day, 7 Days per Week Call CHEMTREC 800-424-9300 Outside N. America call collect +1 703-527-3887 SDS email inquiries: info@tainstruments.com
--	--	--


### 1. IDENTIFICATION

Product: Cobalt P/N 952520.901	MSDS #: 901134.001
Product Use: For laboratory use only.	Date: Rev D, January 8, 2013

### 2. HAZARDS IDENTIFICATION:

Classification & labeling according to GHS and Table 3.1 Annex VI of regulation 1272/2008/EU, as amended:  
 Classification: Hazard Class and Category (Code(s): Respiratory sensitisation, Category 1: [H334]. Skin sensitization, Category 1: [H317].  
 Hazardous to the aquatic environment, Chronic Category 4.



GHS/CLP Label Elements: Pictogram(s):  Signal Word(s): Danger. Hazard statement(s): May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause long lasting harmful effects to aquatic life. Precautionary statement(s): Do not breathe dust. Avoid contact with skin.

The small quantities supplied in our products are unlikely to cause severe or immediate health effects. Use only as directed and in accordance with safe laboratory practices.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS:

CHEMICAL INGREDIENT NAME	CAS NUMBER	EC NUMBER	% by Weight	EXPOSURE LIMITS		
				OSHA	ACGIH	EU IOELV
Cobalt	7440-48-4	231-158-0	99+	0.1 mg/m <sup>3</sup>	0.02 mg/m <sup>3</sup>	NA

Notes: Cobalt powder provided in an 8 cubic centimeter vial, for use as a temperature calibrant for thermal analysis equipment.  
 Exposure Limits are 8-Hour TWA. (Time Weighted Average) unless designated C (Ceiling) or STEL (Short Term Exposure Limit).

### 4. FIRST AID MEASURES:

Inhalation: Remove to fresh air.  
 Skin Contact: Flush with water.  
 Eye Contact: Immediately flush with water for a minimum of 15 minutes.  
 Ingestion: Get medical attention.

After following first aid measures, seek medical attention.

### 5. FIRE-FIGHTING MEASURES:

Flammable Properties: Not flammable.  
 Extinguishing Media: Dry chemical, carbon dioxide or appropriate foam.  
 Unique Aspects Contributing To a Fire: None.  
 Special Fire Fighting Procedures: None.  
 Note: As in any fire, wear self-contained breathing apparatus, and full protective gear.

6. ACCIDENTAL RELEASE MEASURES: Due to small quantities involved, spills or leaks should not pose a significant problem. Sweep up and place wastes into closed containers for proper disposal.

7. HANDLING AND STORAGE: Handle as directed and in accordance with safe laboratory practices.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Handle in accordance with safe laboratory practices.

Respiratory Protection: Not normally needed. If exposure limits are exceeded, use approved particulate respirator.  
 Eye Protection: Splash goggles or safety glasses with side protection.  
 Skin Protection: Disposable nitrile are acceptable for light intermittent exposure.  
 Engineering Controls: No special requirements. Use general or other local exhaust ventilation to meet Exposure Limits.

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

Appearance: Light grey powder

Physical State: Solid	Flash Point: NA	Vapor Pressure: NA
Odor: NA	Explosion Limits: NA	Vapor Density (air=1): NA
pH: NA	Boiling Point: 5,252°F (2870°C)	Solubility in Water: Insoluble
Specific Gravity: 8.93 g/mL at 77 °F (25 °C)	Melting Point: 2,723°F (1495°C)	Other: NA

**10. STABILITY AND REACTIVITY:**

Hazardous Polymerization  Will Not Occur  May Occur

Stability: Stable

<b>Hazardous Decomposition/Combustion Products:</b> Cobalt/cobalt oxides.	<b>Conditions &amp; Materials to Avoid:</b> Oxidizing agents, strong mineral acids.
--	--

**11. TOXICOLOGICAL INFORMATION:**

Primary Route(s) of Exposure under Normal Use: Inhalation.

Target Organ(s): Kidney, Eyes, Skin, Respiratory system.

Acute Effects: Low acute toxicity. Cough, sore throat, wheezing, increasing breathing difficulties. In sensitive people, risk of asthma attack and breathing difficulties, as well as nose bleeds. Ingestion: LD50 = 7510 mg/kg for rats. Contact with the skin: LD50 > 2000 mg/kg.

Chronic Effects: Prolonged contact can cause sensitization and allergic dermatitis. Repeated exposure may cause pneumonitis and scarring of the lungs.

Other Information: Chemical Ingredient (cobalt) classified as carcinogen by: IARC (Group 2B); ACGIH (Category A2); and California (Label: WARNING! This product contains a chemical (cobalt metal powder) known to the State of California to cause cancer.).

**12. ECOLOGICAL INFORMATION:** Cobalt has low bioaccumulation potential.

**13. DISPOSAL CONSIDERATIONS:** Consult state, local or national regulations for proper disposal. The U.S. Environmental Protection Agency (EPA) does not classify unused product as hazardous waste.

**14. TRANSPORT INFORMATION:** Not Dangerous Goods. Not Regulated.

<b>IATA/ICAO:</b> Shipping Name: NA	IMDG: NA
Hazard Class: NA	
UN/NA #: NA	ADR: NA
Packing Group #: NA	

**15. REGULATORY INFORMATION:**

**U.S. TOSCA:** Listed.

**Canada:** This product has been classified according to the hazard criteria of the Controlled Product Registration (CPR) and this SDS contains all the information required by the CPR.

**16. OTHER INFORMATION:**

<b>U.S. EPA</b>	<b>National Fire Protection Association Rating</b>		
<b>SARA 313 Chemicals</b>	<b>CERCLA RQ</b>	4=Severe Hazard	<b>HEALTH</b> NA
Cobalt	None	3=Serious Hazard	<b>FLAMMABILITY</b> NA
		2=Moderate Hazard	<b>REACTIVITY</b> NA
		1=Slight Hazard	<b>OTHER</b> NA
		0=Minimal Hazard	

Notes, abbreviations and acronyms:

ACGIH: American Conference of Governmental Industrial Hygienists  
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 EC: European Commission  
 EU IOELV: European Union Indicative Occupational Exposure Limit Values

GHS: Globally Harmonized System of Classification and Labeling of Chemicals  
 IATA: International Air Transport Association  
 IMDG: International Maritime Code for Dangerous Goods  
 NA: Not Available.  
 OSHA: Occupational Safety and Health Administration

For laboratory use only. Not for drug, household or other uses.

The information contained herein has been compiled from data presented in various technical sources believed to be accurate. Waters makes no warranties and assumes no liability in connection with the use of this information. It is the user's responsibility to determine the suitability of this information and to assure the adoption of necessary precautions.