

**BACHARACH, INC.**  
**MATERIAL SAFETY DATA SHEET**

This Material Safety Data Sheet has been prepared to comply with the EC Directive, Canadian WHMIS and OSHA Hazard Communication Regulations.

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION  
AND THE COMPANY/UNDERTAKING**

Bacharach, Inc.  
621 Hunt Valley Circle  
New Kensington, PA 15068

Emergency Phone: (800) 424-9300 (Chemtrec)  
Information Phone: (724) 334-5760  
Fax: (724) 334-5763

**Product Name:** Silica Gel

**Product Number:** 4717-2580, 4717-3150, 06-0832

**MSDS Number:** 4099-1477 **Revision Number:** 10

**Product Use:** Instrument Fluid

**MSDS Date of Preparation/Revision:** 11/30/09

**SECTION 2: COMPOSITION/ INFORMATION INGREDIENTS**

Chemical Name	CAS# / EINECS#	%	EU Classification (67/548/EEC)
Silica Gel	112926-00-8	>99	Not Applicable
Cobalt Chloride	7646-79-9 / 231-589-4	0.9	T, N R49, R68, R60, R22, R42/43, R50/53

See Section 16 for further information on EU Classification.

**SECTION 3: HAZARDS IDENTIFICATION**

Clear blue granules with no odor.

**Emergency Overview:** May cause eye irritation. May cause cancer based on studies with laboratory animals. May cause adverse reproductive effects based on animal data.

**EU Preparation Classification (1999/45/EC):** T (Toxic), N (Dangerous for the Environment) R49, R60, R51/53

**SECTION 4: FIRST AID**

**Eye Contact:** Immediately flush eyes with large amounts of water for 15 minutes, lifting the upper and lower lids. Get prompt medical attention if irritation develops.

**Skin Contact:** Wash thoroughly with soap and water after contact. Get medical attention if irritation develops or persists.

**Inhalation:** If irritation develops remove victim to fresh air. If symptoms persist, get medical attention.

**Ingestion:** Do not induce vomiting. If victim is conscious, give 1 glass of water or milk. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention.

**SECTION 5: FIRE AND EXPLOSION HAZARD DATA**

**Extinguishing Media:** Use media suitable for the surrounding fire.

**Special Fire Fighting Procedures:** Firefighters should wear approved self-contained breathing apparatus and full protective clothing for all fires involving chemicals.

**Unusual Fire and Explosion Hazards:** None.

**Hazardous Combustion Products:** None known.

<b>SECTION 6: ACCIDENTAL RELEASE MEASURES</b>
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Wear appropriate protective clothing (See Section 8). Sweep up or vacuum and place in container for disposal. Avoid generating airborne dust.

<b>SECTION 7: HANDLING AND STORAGE</b>
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**Work Practices:** Avoid eye and skin contact. Avoid breathing dust. Use with adequate ventilation. Wash thoroughly after contact. Avoid generating dust.

**Special Precautions:** When pouring into a container of flammable liquid, ground both containers electrically to prevent a static spark.

**Storage:** Store in cool, dry location. Keep containers tightly closed.

<b>SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION</b>
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Chemical Name	Exposure Limits
Silica Gel	20 mppcf TWA OSHA PEL 4 mg/m <sup>3</sup> (inhalable) DFG-MAK 6 mg/m <sup>3</sup> (inhalable), 2.4 mg/m <sup>3</sup> (respirable) TWA UK WEL
Cobalt Chloride	0.1 mg/m <sup>3</sup> TWA OSHA PEL 0.02 mg/m <sup>3</sup> TWA ACGIH TLV 0.1 mg/m <sup>3</sup> TWA UK WEL

**Ventilation:** Good general room ventilation is usually adequate for normal use. Avoid breathing dust.

**Respiratory Protection:** If the TLV is exceeded, wear a NIOSH approved dust/mist respirator. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with applicable regulations and good Industrial Hygiene practice.

**Gloves:** Wear close-weave cotton gloves with tight fitting wristlets.

**Eye Protection:** Safety glasses or goggles recommended.

**Other Protective Equipment:** Long sleeved clothing, washing facilities.

<b>SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES</b>
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**Appearance and Odor:** Clear blue granules, with no odor.

**pH:** Approximately 6.5-7.5

**Boiling Point:** 2230°C

**Melting Point:** 1710°C

**Solubility In Water:** Insoluble

**Octanol/Water Coefficient:** Not determined

**Flash Point:** Not combustible

**Autoignition Temperature:** N/A

**Specific Gravity:** 2.1

**Vapor Pressure:** Negligible

**Vapor Density:** 2.08

**Percent Volatile:** 0%

**Test Method:** N/A

**Flammable Limits:** LEL: N/A UEL: N/A

**SECTION 10: STABILITY AND REACTIVITY**

**Stability:** Stable

**Conditions to Avoid** N/A

**Incompatibility:** Avoid strong oxidizing agents, fluorides, hydrochloric acid and vinyl acetate.

**Hazardous Decomposition Products:** Silicon oxide.

**Hazardous Polymerization:** Will not occur.

**SECTION 11: TOXICOLOGICAL INFORMATION****Potential Health Effects:**

**Eye Contact:** May cause mechanical and drying irritation.

**Skin Contact:** May cause drying of mucous membranes and skin.

**Inhalation:** Dust may cause drying and irritation of the nose, throat and upper respiratory tract.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**Chronic Health Effects:** Prolonged overexposure to cobalt compounds by inhalation can cause decreased pulmonary function, fibrotic lung disease and respiratory hypersensitivity.

**Carcinogen Status:** Cobalt and cobalt compounds are listed as "Possibly Carcinogenic to Humans (2B) by IARC and as a Category 2 carcinogen by the EU Directive.

**Medical Conditions Aggravated by Exposure:** Pre-existing respiratory conditions may be aggravated by prolonged overexposure.

**Acute Toxicity Data:**

Silica Gel: No data available

Cobalt Chloride Oral rat LD50 80 mg/kg

**Irritancy Data:** Not an irritant.

**Sensitization:** This material has not been reported to cause sensitization in humans or animals.

**Reproductive Toxicity:** Cobalt chloride has been reported to cause adverse reproductive effects in laboratory animals. Cobalt chloride is classified as a Category 2 reproductive toxic by the EU Directive.

**Teratogenicity:** Cobalt chloride has been reported to cause birth defects in laboratory animals.

**Mutagenicity:** Cobalt chloride has tested positive for mutagenicity in some test systems. Cobalt chloride is classified as a Category 3 mutagen by the EU Directive.

**Synergistic Effects:** There are no chemicals known to cause any additive adverse health effects.

**SECTION 12: ECOLOGICAL INFORMATION**

The ecological effects of this product have not been evaluated.

**SECTION 13: DISPOSAL**

Dispose in accordance with all local, state and federal regulations.

RCRA Hazardous Waste Codes: Not applicable.

**SECTION 14: TRANSPORTATION DATA**

**US DOT Shipping Name:** Not Regulated

**DOT Labels Required:** N/A

**Emergency Response Guide Number:** N/A

**IATA Shipping Name:** Not Regulated

**IATA Labels Required:** N/A

**SECTION 15: OTHER REGULATORY INFORMATION**

**U.S. FEDERAL REGULATIONS:**

**SARA 311/312:** Hazard Categories for SARA Section 311/312 Reporting: None

**SARA 313:** This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Section 313 (40 CFR 372):

Cobalt Chloride 0.9%  
(cobalt compounds)

**CERCLA Section 103 Reportable Quantity:** N/A

**US Toxic Substances Control Act:** All of the components of this product are listed on the EPA TSCA Inventory.

**STATE REGULATIONS:**

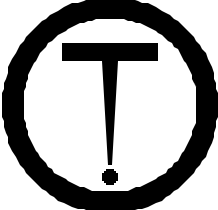
**California Proposition 65:** This product contains the following substances known to the State of California to cause Cancer and/or Reproductive Harm: None

**INTERNATIONAL REGULATIONS:**

**Australian Inventory Of Chemical Substances:** All of the components of this product are listed on the AICS Inventory.

**Canadian Environmental Protection Act:** All of the components of this product are listed on the Canadian Domestic Substances List.



**Canadian WHMIS Classification:**

	Class D-2-A (Very Toxic Material Causing Other Toxic Effects)
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This product has been classified in accordance with the hazard criteria in the CPR and the MSDS contains all the information required by the CPR.

**European Inventory of Commercial Chemical Substances:** All of the components of this product are listed on the EINECS Inventory.

**European Community Labeling:** Contains Cobalt Dichloride

		<p>R49 May cause cancer by inhalation.                  R60 May impair fertility                  R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.                  S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).                  S53 Avoid exposure - obtain special instructions before use.                  S60 This material and/or its container must be disposed of as hazardous waste.                  Restricted to professional users.</p>
<p>Toxic</p>	<p>Dangerous for the Environment</p>	

**Inventory of Existing Chemical Substances in China:** All the components are listed on the State Environmental Protection Administration of the Peoples Republic of China IECSC.

**Japan MITI:** All of the components of this product are existing chemical substances as defined in the Chemical Substance Control Law.

**Korean Existing Chemical List:** All of the components of this product are listed on the KECL Inventory.

**Philippines Inventory of Chemicals and Chemical Substances:** All of the components in this product are listed on the PICCS Inventory.

**SECTION 16: OTHER INFORMATION**

**NFPA Hazard Rating**

**HEALTH: 1**

**FIRE: 0**

**REACTIVITY: 1**

**EU Classes and Risk Phrases for Reference (See Sections 2 and 3):**

- T Toxic
- N Dangerous for Environment
- R22 Harmful if swallowed.
- R42/43 May cause sensitization by inhalation and skin contact.
- R49 May cause cancer by inhalation.
- R50/53 Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R60 May impair fertility.
- R68 Possible risk of irreversible effects.

**Date of Previous MSDS Revision:** 03/10/06

**Revision Summary:** Revised Section 2, 3, 4, 11, 15, 16

The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of the product are not within the control of Bacharach, Inc., it is the users obligation to assure safe use of this product.