

# Material Safety Data Sheet

## Silica Gel Desiccant Grade

ACC# 45402

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Silica Gel Desiccant Grade**Catalog Numbers:** S160-10, S160-200LB, S160-212, S160-25LB, S160-500, S160-5LB, S161-10, S161-200LB, S161-212, S161-50, S161-500, S162-212, S162-500, S689-212, S689-5LB, S707-212, S707-5LB**Synonyms:** Amorphous silica; Synthetic amorphous silica; amorphous silicon dioxide; Silica gel**Company Identification:**

Fisher Scientific  
 1 Reagent Lane  
 Fair Lawn, NJ 07410

**For information, call:** 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
112926-00-8	Silica gel, pptd., cryst.-free, hydrated form	>99	unlisted
7646-79-9	Cobaltous chloride	0.9	231-589-4

**Hazard Symbols:** None listed.**Risk Phrases:** None listed.

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear blue solid. **Caution!** May cause irritation. This is expected to be a low hazard for usual industrial handling. May cause cancer based on animal studies.

**Target Organs:** None.**Potential Health Effects****Eye:** Dust may cause mechanical irritation.**Skin:** Dust causes mechanical irritation.**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Low hazard for usual industrial handling.**Inhalation:** Dust is irritating to the respiratory tract. Low hazard for usual industrial handling.**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid if irritation develops or persists. Flush skin with plenty of soap and water.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid if irritation or symptoms occur.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation.

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

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs

Silica gel, pptd., cryst.-free, hydrated form	10 mg/m3 TWA	none listed	none listed
Cobaltous chloride	none listed	none listed	none listed

**OSHA Vacated PELs:** Silica gel, pptd., cryst.-free, hydrated form: 6 mg/m3 TWA Cobaltous chloride: No OSHA Vacated PELs are listed for this chemical.

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** clear blue

**Odor:** odorless

**pH:** 2.3-7.4 (suspension)

**Vapor Pressure:** Negligible

**Vapor Density:** 2.08

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 2230 deg C

**Freezing/Melting Point:** 1710 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Insoluble in water.

**Specific Gravity/Density:** 2.2-2.6

**Molecular Formula:** SiO<sub>2</sub>

**Molecular Weight:** 60.0843

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials.

**Incompatibilities with Other Materials:** Fluorides, hydrochloric acid, strong oxidizers, vinyl acetate.

**Hazardous Decomposition Products:** Silicon oxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 112926-00-8: VV7315000

**CAS#** 7646-79-9: GF9800000

**LD50/LC50:**

Not available.

CAS# 7646-79-9:

Oral, mouse: LD50 = 80 mg/kg;

Oral, rat: LD50 = 80 mg/kg;

**Carcinogenicity:**

CAS# 112926-00-8: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. CAS# 7646-79-9:

**ACGIH:** A3 - Confirmed animal carcinogen with unknown relevance to humans (as Co) (list**OSHA:** Possible select carcinogen (listed as Cobalt compounds).**IARC:** Group 2B carcinogen (listed as Cobalt compounds).**Epidemiology:** Amorphous silica has been tested for carcinogenicity in a variety of animal studies by a number of routes. Most tests were either negative or inadequate because of poorly defined physiochemical characteristics of the silica.**Teratogenicity:** No [data](#) available.**Reproductive Effects:** No [data](#) available.**Neurotoxicity:** No [data](#) available.**Mutagenicity:** No [data](#) available.**Other Studies:** Because amorphous silica is less fibrogenic than crystalline silica, silicosis is rarely observed from exposure to amorphous silica.

Section 12 - Ecological Information
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**Ecotoxicity:** No [data](#) available. No information available.**Environmental:** Because of its low water solubility, amorphous silica gel is expected to cause little oxygen depletion in aquatic systems. It is expected to have a low potential to affect aquatic organisms. It is expected to be resistant to biodegradation but is unlikely to bioconcentrate.**Physical:** No information available.**Other:** No information available.

Section 13 - Disposal Considerations
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Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.**RCRA U-Series:** None listed.

Section 14 - Transport Information
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	US DOT	IATA	RID/ADR	IMO	Canada TDG
<b>Shipping Name:</b>	No information available.				No information available.
<b>Hazard Class:</b>					
<b>UN Number:</b>					
<b>Packing Group:</b>					

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 112926-00-8 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

CAS# 7646-79-9 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### SARA

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 7646-79-9: acute, chronic, reactive.

#### Section 313

This material contains Cobaltous chloride (listed as Cobalt compounds), 0.9%, (CAS# 7646-79-9) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

#### Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 112926-00-8 can be found on the following state right to know lists: Pennsylvania, Minnesota, Massachusetts.

CAS# 7646-79-9 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

Not available.

#### Risk Phrases:

#### Safety Phrases:

#### WGK (Water Danger/Protection)

CAS# 112926-00-8: 0

CAS# 7646-79-9: 2

**Canada - DSL/NDSL**

CAS# 112926-00-8 is listed on Canada's DSL List.

CAS# 7646-79-9 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of Not controlled..

**Canadian Ingredient Disclosure List**

CAS# 7646-79-9 is listed on the Canadian Ingredient Disclosure List.

**Exposure Limits**

<b>Section 16 - Additional Information</b>
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**MSDS Creation Date:** 11/11/1997

**Revision #4 Date:** 1/03/2003

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*