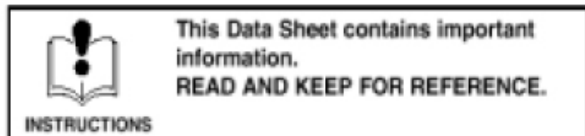


# Material Safety Data Sheet



## 1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Desiccant Drying Media

Chemical Name: Amorphous Silicon Dioxide

Use: Drying moisture from air.

**CHEMICAL NAME**

**FAMILY:** Synthetic Amorphous

**SYNONYMS:**

Amorphous Silicon Dioxide, Silica Gel, Silicic Acid  
TEL-TALE® Indicating Gel

**CHEMICAL NOTATION  
OR STRUCTURE:**

$\text{SiO}_2, x\text{H}_2\text{O} + \text{CoCl}_2$

**INGREDIENTS:**

Amorphous Silica, Cobalt Chloride ( $\text{CoCl}_2$ )

Synthetic amorphous silica, not to be confused with crystalline silica such as quartz, cristobalite or tridymite or with diatomaceous earth or other naturally occurring forms of amorphous silica that frequently contain crystalline forms

**CAS REGISTRY NO:**

Silica Gel: 63231-67-4 (Revised 1990  $\text{SiO}_2$ : 112926-00-8)  
Cobalt Chloride: 7646-79-9

**RTECS NO:**

VV7322000 (Silica Gel)  
GF9800000 (Cobalt Chloride)

## HEALTH INFORMATION

### PRECAUTIONS IN USE:

Avoid prolonged breathing of the dust or contact of dust with the skin. The drying action of this material can cause irritation of the mucous membranes of the nose and throat and irritation of the skin. If its use requires manual handling, wear long sleeves and close-weave cotton gloves with tight-fitting wristlets. If dusty conditions prevail, use of an approved NIOSH/MSHA dust mask is recommended.

When pouring into a container of flammable liquid, ground both containers electrically to prevent a static electric spark.

### FIRST AID:

**EYES:** Immediately wash from eyes with large amounts of water, occasionally lifting upper & lower eye lids. If irritation occurs and persists, seek medical attention.

**SKIN:** Wash with soap & water.

**INGESTION:** Material will pass through body normally.

**INHALATION:** Remove to fresh air.

## TOXICOLOGY

### ANIMAL TOXICOLOGY

#### TESTS FOR DOT HAZARD CLASSIFICATION:

48-hour oral LD<sub>50</sub> (rat) est. > 31,600 mg/kg

48-hour dermal LD<sub>50</sub> (rabbit) est. > 2,000 mg/kg

Not considered an ocular irritant.

**TESTS FOR FDA APPROVAL FOR USE IN FOODS:** Not a food-grade product.

Cobalt chloride is considered GRAS (generally recognized as safe) as a trace mineral added to animal feeds (approximately 10 PPM) by FDA

### HUMAN TOXICOLOGY:

Silica gel is a synthetic amorphous silica not to be confused with crystalline silica. Epidemiological studies indicate low potential for adverse health effects. Silica gel is considered by Davison to be a nuisance dust. In the activated form, silica gel acts as a desiccant and can cause a drying irritation of the mucous membranes and skin in cases of severe exposure. Cobalt chloride can cause dermatitis and irritation of nasal passages and lungs. Davison knows of no medical conditions abnormally aggravated by exposure to this product. The primary route of entry is inhalation.

## ENVIRONMENTAL DATA

Not known to have any adverse effect on the aquatic environment. The silica base is insoluble and nontoxic. Cobalt chloride may leach away if contacted with water.

## TYPICAL CHEMICAL & PHYSICAL INFORMATION

<b>APPEARANCE:</b>	Clear blue granules
<b>pH IN 5% SLURRY:</b>	Approximately 6.5 -7.5
<b>ODOR</b>	None
<b>SPECIFIC GRAVITY:</b>	2.1
<b>BULK DENSITY:</b>	Approximately 47-48 lbs/ft. <sup>3</sup>
<b>SOLUBILITY IN WATER:</b>	Silica gel base insoluble Cobalt chloride may leach out.
<b>APPROXIMATE ANALYSIS:</b>	SiO <sub>2</sub> (Ignited Basis) - 99.7 (CoCl <sub>2</sub> sublimes) LOI @ 1760 F - 6.5% Crystalline Silica - Not detectable Cobalt Chloride - 0.9%
<b>STABILITY:</b>	Stable
<b>REACTIVITY:</b>	Reacts with HF
<b>FIRE &amp; EXPLOSION DATA:</b>	Non-flammable

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## REGULATORY STATUS

<b>OSHA-</b>	Silica gel - PEL = 6 mg/m <sup>3</sup> Cobalt chloride - PEL = not listed in 29 CFR 1910.1000.
<b>NIOSH-</b>	Silica Gel - Animal tests conducted in 1976-78. 18 month exposure at 15 mg/m <sup>3</sup> showed silica deposition in respiratory macrophages and lymph nodes, minimis lung function impairment, and no silicosis.
<b>EPA-</b>	This product contains no toxic chemicals in excess of the applicable de minimis concentration as specified under § 313 of Title III SARA.
<b>ACGIH-</b>	Silica Gel - TLV = 10 mg/m <sup>3</sup> (Silica gel); Cobalt Chloride - TLV = not listed.
<b>USDA-</b>	Not applicable
<b>FDA-</b>	Not a food-grade product. For food or pharmaceutical use, FP grades of Syloid should be specified.
<b>DOT-</b>	Not classified as a hazardous material.

## HANDLING INFORMATION

<b>STORAGE AND TRANSPORTATION:</b>	Keep containers tightly sealed to protect product quality.
<b>DISPOSAL:</b>	Dispose in an approved landfill according to federal, state and local regulations. Cover promptly to avoid blowing of dust.
<b>SPILLAGE AND CLEANUP:</b>	Sweep or vacuum up.
<b>CONTAINERS:</b>	Drums, cans.

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