

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 02.15.2018

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Silica Gel, Indicating

SECTION 1: Identification

Product identifier

Product name: Silica Gel, Indicating

Product code: S25520

Recommended use of the product and restriction on use

Relevant identified uses: Not determined or not applicable.

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

AquaPhoenix Scientific
860 Gitts Run Road
Hanover
PA 17331
(717) 632-1291

Supplier:

Fisher Science Education
6771 Silver Crest Road
Nazareth
PA 18064
800 955-1177

Emergency telephone number:

United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard identification

GHS classification:

Acute toxicity (oral), category 4

Skin sensitization, category 1

Respiratory sensitization, category 1

Germ cell mutagenicity, category 2

Carcinogenicity, category 1B

Acute aquatic hazard, category 1

Chronic aquatic hazard, category 1

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

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H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P285 In case of inadequate ventilation wear respiratory protection.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P281 Use personal protective equipment as required.

P273 Avoid release to the environment.

P330 Rinse mouth

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P333+P313 If skin irritation or a rash occurs: Get medical advice/attention

P321 Specific treatment (see supplemental first aid instruction on this label).

P363 Wash contaminated clothing before reuse

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P308+P313 If exposed or concerned: Get medical advice/attention

P391 Collect spillage

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 7646-79-9	Cobalt chloride	<1
CAS number: 1343-98-2	Silica gel	>99

Additional Information: None

SECTION 4: First-aid measures

Description of first-aid measures

General notes:

Not determined or not available.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Get medical advice/attention if you feel unwell

After skin contact:

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Rinse affected area with soap and water
If symptoms develop or persist, seek medical attention

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes
If symptoms develop or persist, seek medical attention

After ingestion:

Rinse mouth thoroughly
Seek medical attention if irritation, discomfort, or vomiting persists
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell
Do not induce vomiting
Rinse mouth and then drink plenty of water

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not available.

Delayed symptoms and effects:

Not determined or not available.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not available.

Notes for the doctor:

Not determined or not available.

SECTION 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

Carbon monoxide and carbon dioxide may form upon combustion
Heating causes a rise in pressure, risk of bursting and combustion

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation
Ensure air handling systems are operational
Wear protective eye wear, gloves and clothing

Environmental precautions:

Should not be released into the environment
Prevent from reaching drains, sewer or waterway

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Methods and material for containment and cleaning up:

- Wear protective eye wear, gloves and clothing
- Sweep or scoop up solid material while minimizing dust generation
- Dispose of contents / container in accordance with local regulations

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

- Use only with adequate ventilation.
- Avoid breathing dust.
- Do not eat, drink, smoke or use personal products when handling chemical substances.

Conditions for safe storage, including any incompatibilities:

- Keep container tightly sealed.
- Keep container dry.
- Store in a cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
Japan	Cobalt chloride	7646-79-9	ISHL OELs - Threshold limit value: 0.02 mg/m ³
	Cobalt chloride	7646-79-9	JSOH OEL: TWA: 0.05 mg/m ³
Bulgaria	Cobalt chloride	7646-79-9	TWA: 0.1 mg/m ³
Croatia	Cobalt chloride	7646-79-9	Maximum (8 hr) allowable concentration: 0.1 mg/m ³
Czech Republic	Cobalt chloride	7646-79-9	8-hour TWA: 0.05 mg/m ³
	Cobalt chloride	7646-79-9	Ceiling limit (NPK-P): 0.1 mg/m ³
Estonia	Cobalt chloride	7646-79-9	8-hour TWA: 0.05 mg/m ³
Hungary	Cobalt chloride	7646-79-9	8-hour TWA (ÁK Value): 0.1 mg/m ³
	Cobalt chloride	7646-79-9	60-minute STEL (CK Value): 0.4 mg/m ³
Lithuania	Cobalt chloride	7646-79-9	8-hour TWA: 0.05 mg/m ³
Poland	Cobalt chloride	7646-79-9	8-hour TWA (NDS): 0.02 mg/m ³
Slovakia	Cobalt chloride	7646-79-9	8-hour TWA (NPEL): 0.05 mg/m ³
Denmark	Cobalt chloride	7646-79-9	TWA: 0.01 mg/m ³
Finland	Cobalt chloride	7646-79-9	8-hour limit: 0.02 mg/m ³
Greece	Cobalt chloride	7646-79-9	8-hour TWA: 0.1 mg/m ³
Ireland	Cobalt chloride	7646-79-9	8-hour OEL (TWA): 0.1 mg/m ³
Italy	Cobalt chloride	7646-79-9	8-hour TWA: 0.02 mg/m ³
Portugal	Cobalt chloride	7646-79-9	8-hour exposure limit: 0.02 mg/m ³
Spain	Cobalt chloride	7646-79-9	8-hour daily exposure limit (VLA_ED): 0.02 mg/m ³

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Country (Legal Basis)	Substance	Identifier	Permissible concentration
Sweden	Cobalt chloride	7646-79-9	Level Limit Value (NGV): 0.02 mg/m ³
United Kingdom	Cobalt chloride	7646-79-9	TWA: 0.1 mg/m ³
Brazil	Cobalt chloride	7646-79-9	8-Hour Exposure Limit (TLV-TWA): 0.02 mg/m ³
ACGIH	Cobalt chloride	7646-79-9	8-Hour Exposure Limit (TLV-TWA): 0.02 mg/m ³
Canada	Cobalt chloride	7646-79-9	Alberta OELs - 8-Hour TWA Exposure Limit: 0.02 mg/m ³
	Cobalt chloride	7646-79-9	British Columbia OELs - 8-Hour TWA Exposure Limit: 0.02 mg/m ³
	Cobalt chloride	7646-79-9	Manitoba OELs - 8-hour Exposure Limit (TLV-TWA): 0.02 mg/m ³
	Cobalt chloride	7646-79-9	Ontario OELs - 8-Hour TWA Exposure Limit: 0.02 mg/m ³
	Cobalt chloride	7646-79-9	Quebec OELs - 8-Hour TWA Exposure Value: 0.02 mg/m ³
	Cobalt chloride	7646-79-9	Saskatchewan OELs - 8 Hour Average Contamination Limit: 0.02 mg/m ³
	Cobalt chloride	7646-79-9	Saskatchewan OELs - 15 Minute Average Contamination Limit: 0.06 mg/m ³
Mexico	Cobalt chloride	7646-79-9	NOM-010-STPS-2014: Time Weighted Average Exposure Limit Value (VLE-PPT): 0.02 mg/m ³

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls.

Biological monitoring may also be appropriate for some substances.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

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General hygienic measures:

- Avoid contact with skin, eyes and clothing.
- Wash hands before breaks and at the end of work.
- Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance (physical state, color):	Blue solid
Odor:	Odorless
Odor threshold:	Not determined or not available.
pH-value:	5.5 - 9.0 (in 5% slurry)
Melting/Freezing point:	724°C
Boiling point/range:	1,049°C at 1,013 hPa
Flash point:	Not applicable.
Evaporation rate:	Not determined or not available.
Flammability (solid, gaseous):	Not determined or not available.
Explosion limit upper:	Not determined or not available.
Explosion limit lower:	Not determined or not available.
Vapor pressure:	100 hPa at 818°C
Vapor density:	Not determined or not available.
Density:	Not determined or not available.
Relative density:	3.370 g/cm ³
Solubilities:	Insoluble, chloride may leach out.
Partition coefficient (n-octanol/water):	log Pow: 0.85
Auto/Self-ignition temperature:	Not determined or not available.
Decomposition temperature:	Not determined or not available.
Dynamic viscosity:	Not determined or not available.
Kinematic viscosity:	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Hygroscopic. Stable under normal conditions.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

Dust generation. Moisture sensitive. Combustible dust formation is a risk. Incompatible materials.

Incompatible materials:

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Oxidizing agents, Alkali metals.

Hazardous decomposition products:

Hydrogen chloride gas, Cobalt/cobalt oxides.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Harmful if swallowed

Product data: No data available.

Substance data:

Name	Route	Result
Cobalt chloride	oral	LD50 - Rat - 418 mg/kg

Skin corrosion/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Serious eye damage/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Respiratory or skin sensitization

Assessment: May cause an allergic skin reaction May cause allergy or asthma symptoms or breathing difficulties if inhaled

Product data: No data available.

Substance data:

Name	Result
Cobalt chloride	May cause an allergic skin reaction.
	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carcinogenicity

Assessment: May cause cancer

Product data: No data available.

Substance data:

Name	Species	Result
Cobalt chloride		May cause cancer.

International Agency for Research on Cancer (IARC):

Name	Classification
Cobalt chloride	Group 2B

National Toxicology Program (NTP):

Name	Classification
Cobalt chloride	Reasonably anticipated to be human carcinogens

Germ cell mutagenicity

Assessment: Suspected of causing genetic defects

Product data: No data available.

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Substance data:

Name	Result
Cobalt chloride	Suspected of causing genetic defects.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
Cobalt chloride	May damage fertility or the unborn child.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available.

Other information: No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Very toxic to aquatic life

Product data: No data available.

Substance data: No data available.

Chronic (long-term) toxicity

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

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Other adverse effects: No data available.


SECTION 13: Disposal considerations

Disposal methods:


It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

SECTION 14: Transport information


Canadian Transportation of Dangerous Goods (TDG)

UN number	UN3077
UN proper shipping name	Environmentally hazardous substances, solid, n.o.s.
UN transport hazard class(es)	9 
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	UN3077
UN proper shipping name	Environmentally hazardous substances, solid, n.o.s.
UN transport hazard class(es)	9 
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN3077
UN proper shipping name	Environmentally hazardous substances, solid, n.o.s.
UN transport hazard class(es)	9 
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None

SECTION 15: Regulatory information

Canada regulations

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Domestic substances list (DSL):

1343-98-2	Silica gel	Listed
7646-79-9	Cobalt chloride	Listed

Non-domestic substances list (NDSL): Not determined.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with the Canadian Hazardous Products Regulations and WHMIS 2015. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 2-0-0

HMIS: 2-0-0-X

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End of Safety Data Sheet