



Safety Data Sheet (SDS)

Revised Date May 27, 2014
Preparation Date March 24, 2010
MSDS Number E74

Section 1 – Product and Company Information

Product Number/Name: 79403 C Desiccant (23.5 gram)
79358 C Desiccant (4 oz)
79352 D Desiccant (5 lb)

Product Use: Desiccant, adsorbent
Grades: Silica gel non-indicating
Synonyms: Amorphous silica gel, SiO₂, silicon dioxide (amorphous)

Manufacturer/Supplier: Rainbow Technology Corporation
261 Cahaba Valley Parkway
Pelham, AL 35124
800.637.6047, www.rainbowtech.net

Contact Person: Larry Joe Steeley, Jr.

Emergency Information: CHEMTEL 1-800-255-3924
813-248-0585 *if located outside the U.S.*

Section 2 – Hazard Identification

Emergency Overview: A white to clear granular material that poses little or no immediate hazard. This material is not combustible.

Potential Health Effects:

Eyes: Dust and or product may cause eye discomfort and irritation seen as tearing and reddening.

Skin: The product dust may cause drying of the skin. Silica gel may get hot enough to burn skin when it adsorbs moisture rapidly. Use an excess of water to cool the silica gel.

Ingestion: Material is not toxic and will pass through the body normally.

Inhalation: Slight irritation is possible but none is expected.

Medical Effects Generally Respiratory ailments.

Aggravated by Exposure:

Chronic Effects/Carcinogenicity: May cause eye, skin and mucous membrane irritation and drying.

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Section 3 – Composition / Information on Ingredients

Component Name	CAS Number	% by Weight
Synthetic amorphous silica gel (SiO ₂)	112926-00-8	100

While this material is not classified as hazardous under OSHA regulations, this MSDS contains valuable information critical to the safe handling and proper use of this product. This MSDS should be retained and available for employees and other users of this product.

Section 4 – First Aid Measures

Eyes: Rinse the eyes well with water while lifting the eye lids. If irritation persists, consult a physician.

Skin: Wash affected area with soap and water.

Ingestion: Ingestion is unlikely; this material will pass through the body normally.

Inhalation: Remove the affected person to fresh air and get medical attention if necessary.

Notes to Physician: Not applicable

Section 5 – Fire Fighting Measures

Flammable Properties: Not flammable

Flash Point: Not applicable

Method: Not applicable

Flammable Limits: Not flammable

Lower Flammability Limit: Not applicable

Upper Flammability Limit: Not applicable

Auto-ignition Temperature: Not applicable

Hazardous Combustion Products: Not applicable

Extinguishing Media: Use extinguishing media that is appropriate for the surrounding fire. Silica gel is not combustible.

Fire Fighting Instructions: Not combustible

Unusual Fire and Explosion Hazards: None

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Section 6 – Accidental Release Measures

Spill: Sweep or vacuum up and place the spilled material in a waste disposal container. Avoid raising dust. Wash with soap and water after handling.

Section 7 – Handling and Storage

Handling: Avoid raising dust and minimize the contact between worker and the material. Practice good hygienic work practices.

Storage: Store in a cool, dry location. Keep in sealed containers away from moisture. The silica gel will readily adsorb moisture.

Section 8 – Exposure Controls/Personal Protection

Engineering Controls: Use exhaust ventilation to keep the airborne concentrations below the exposure limits.

Respiratory Protection: Use NIOSH approved respirator when the air quality levels exceed the TLV's.

Skin Protection: Light gloves will protect against abrasion and drying of the skin.

Eye Protection: Safety glasses.

Component Name	OSHA PEL	Exposure Limits ACGIH TLV	Other Recommended Limits
Silica gel	TWA 20 mppcf (80 mg / m ³ % SiO ₂)	Not Applicable	NIOSH REL TWA 6 mg / m ³ IDLH 3000 mg / m ³

Section 9 – Physical and Chemical Properties

Appearance:	White to clear granules	Vapor Density:	Not applicable
Odor:	None	Boiling Point:	4046° F (2230° C)
Physical State:	Solid granule	Melting Point:	3110° F (1710° C)
PH:	Not applicable	Solubility:	Insoluble in water
Vapor Pressure:	Not applicable	Specific Gravity:	2.1

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Flammable:	Not applicable	Auto-ignition Point:	Not applicable
Flash Point:	Not applicable	Flammable Limits:	Not applicable

Section 10 – Stability and Reactivity

Stability: Stable**Conditions to avoid:** Moisture and high humidity environments**Incompatibility:** Water, fluorine, oxygen difluoride, chlorine trifluoride**Hazardous Decomposition Products:** None**Hazardous Polymerization:** Will not occur

Section 11 – Toxicological Information

This product and its components are not listed on the IARC, NTP or OSHA Carcinogen lists.

IARC Amorphous silica gel IARC - 3 (Unclassifiable as to Carcinogenicity in Humans)

Animal Toxicology Tests for DOT Hazard classification
(Tests Conducted on finely ground silica gel)

1 - hour LC₅₀ (rat) > 2 mg / l
 48 - hour oral LD₅₀ (rat) est. > 31,600 mg / kg
 48 - hour dermal LD₅₀ (rabbit) est. > 2,000 mg / kg
 Considered an ocular irritant

Tests for FDA approval of silica gel for use in foods LD₅₀ (mice) 8,000 mg / kg (limit of test)
 LD₅₀ (rats) 4,500 mg / kg (limit of test)
 6 months' feeding tests (rats) at levels up to 10 % of the diet produced no effects.

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. 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. Rainbow Technology Corp. knows of no medical conditions that are abnormally aggravated by exposure to silica gel. The primary route of entry is inhalation of dust.

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Section 12 – Ecological Information

Not known to have any adverse effect on the aquatic environment. Silica gel is insoluble and non-toxic.

Section 13 – Disposal Information

Disposal Information If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Materials of a hazardous nature that contact the product during normal use may be retained on the product. The user of the product must identify the hazards associated with the retained material in order to assess the waste disposal options. Dispose according to federal, state and local regulations.

Section 14 – Transportation Information

U.S. Department of Transportation Shipping Name: Not classified as a hazardous material. Not regulated.

Section 15 – Regulatory Information (Not meant to be all inclusive - selected regulations represented)

TSCA Listed: Yes

OSHA: See section 8 above

NIOSH: See section 8 above
Animal tests conducted in 1976 - 1978. 18 month exposure at 15 mg / m³ showed silica deposition in respiratory macrophages and lymph nodes, minimum lung impairment, no silicosis.

EPA: This product contains no toxic chemicals in excess of the applicable de minimis concentration as specified under 313 of Title III SARA.

ACGIH: See section 8 above

Food Chemical Codex: Silica gel is approved for functional use in foods.

USDA: Silica gel has been cleared for certain uses in salt and seasonings, and in curing mixtures for meat and poultry products.

FDA: Silica gel has been cleared for certain uses in foods per 21 CFR 160.105, 160.185 and 172.480

DOT: Not classified as a hazardous material.

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Canadian Hazardous Products Act This product is not classified as a controlled product under the regulations pursuant to the Federal Hazardous Product Act (e.g. WHMIS).

Canadian Environmental Protection Act All ingredients of this product are notified to CEPA and on the DSL(Domestic Substances List).

Section 16 – Other Information

HMIS – Hazardous Materials Identification System

HMIS Rating	
Health	1
Flammability	0
Physical	0

The HMIS rating information is intended solely for the use of individuals trained in the use of the HMIS rating system.

The NPCA specifically recommends that preparers of MSDSs should not place HMIS PPE designation codes on the MSDSs or labels that leave the facility as it is not known the conditions under which the customer will use this product.

This data and recommendations presented in this data sheet concerning the use of our product and the materials contained therein are believed to be correct but does not purport to be all inclusive and shall be used only as a guide. However, the customer should determine the suitability of such materials for his purpose before adopting them on a commercial scale. Since the use of our products is beyond our control, no guarantee, expressed or implied, is made and no responsibility assumed for the use of this material or the results to be obtained therefrom. Information on this form is furnished for the purpose of compliance with Government Health and Safety Regulations and shall not be used for any other purposes. Moreover, the recommendations contained in this data sheet are not to be construed as a license to operate under, or a recommendation to infringe, any existing patents, nor should they be confused with state, municipal or insurance requirements, or with national safety codes.