Section 1 – Product and Company Information

Product Name: Silica gel, indicating
Product Use: Desiccant, absorbent
Grades: Silica gel indicating
Synonyms: Amorphous silica gel, SiO$_2$, silicon dioxide (amorphous)
Company: Multisorb Technologies, Inc.
Street Address: 325 Harlem Road
City, State, Zip, Country: Buffalo, NY 14224-1893 USA
Telephone Number: (716) 824 8900 [USA] Monday - Friday (8:00 - 5:00 EDT)
Fax Number: (716) 824 4091 [USA]
Website / E-Mail: multisorb.com

Section 2 – Hazard Identification

Emergency Overview: A blue to pink 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 Aggravated by Exposure: Respiratory ailments.
Chronic Effects/Carcinogenicity: May cause eye, skin and mucous membrane irritation and drying.

Section 3 – Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS Number</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic amorphous silica gel (SiO$_2$)</td>
<td>112926-00-8</td>
<td>100</td>
</tr>
<tr>
<td>Cobalt Chloride</td>
<td>7646-79-9</td>
<td>.5</td>
</tr>
</tbody>
</table>

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 eyes well with water while lifting 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.
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
Explosion Data: Not sensitive to statistic discharge
Not sensitive to mechanical impact.

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 cotton gloves will protest against abrasion and drying of the skin.
Eye Protection: Safety glasses.

Exposure Limits
### Section 9 – Physical and Chemical Properties

- **Appearance:** Pink to blue granules
- **Odor:** None
- **Physical State:** Solid granule
- **PH:** Not applicable
- **Vapor Pressure:** Not applicable
- **Evaporation Rate:** Not applicable
- **Coefficient of water / oil distribution:** Not applicable
- **Flammable:** Not applicable
- **Flash Point:** Not applicable
- **Vapor Density:** Not applicable
- **Boiling Point:** 4046 F (2230 C)
- **Melting Point:** 3110 F (1710 C)
- **Solubility:** Insoluble in water
- **Specific Gravity:** 2.1
- **Auto-ignition 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 NTP or OSHA Carcinogen lists.

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

- 1 - hour LC$_{50}$ (rat) > 2 mg / l
- 48 - hour oral LD$_{50}$ (rat) est. > 31,600 mg / kg
- 48 - hour dermal LD$_{50}$ (rabbit) est. > 2,000 mg / kg

Considered an ocular irritant
### 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. Multisorb Technologies Inc. knows of no medical conditions that are abnormally aggravated by exposure to silica gel. The primary route of entry is inhalation of dust.

### 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.
- **Transport Canada Product Identification Number:** 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.
- **ACGIH:** See section 8 above.
- **DOT:** Not classified as a hazardous material.

- **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
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 prepares 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 MSDS was prepared by: George E. McKedy
Senior Applications Development Specialist
Multisorb Technologies, Inc.

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.