



Material Safety Data Sheet

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|--|--|---------------|---|-------------|---|------------|---|--|
| NFPA  | HMIS <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #00FFFF;">Health Hazard</td> <td style="text-align: center; border: 1px solid black;">1</td> </tr> <tr> <td style="background-color: #FFC0CB;">Fire Hazard</td> <td style="text-align: center; border: 1px solid black;">0</td> </tr> <tr> <td style="background-color: #FFFF00;">Reactivity</td> <td style="text-align: center; border: 1px solid black;">0</td> </tr> </table> | Health Hazard | 1 | Fire Hazard | 0 | Reactivity | 0 | Personal Protective Equipment  See Section 15. |
| Health Hazard | 1 | | | | | | | |
| Fire Hazard | 0 | | | | | | | |
| Reactivity | 0 | | | | | | | |

| Section 1. Chemical Product and Company Identification | | Page Number: 1 |
|--|--|---|
| Common Name/ Trade Name | Silica gel, Grade 636, 35-60 mesh | Catalog Number(s). SIL64 |
| | | CAS# 7631-86-9 |
| Manufacturer | SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248 | RTECS Not available. |
| | | TSCA TSCA 8(b) inventory: Silica gel (Silica) |
| Commercial Name(s) | Not available. | CI# Not available. |
| Synonym | Amorphous silicon dioxide, chemically prepared. 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. | <u>IN CASE OF EMERGENCY</u> <u>CHEMTREC (24hr) 800-424-9300</u> CALL (310) 516-8000 |
| Chemical Name | Synthetic Amorphous Silica | |
| Chemical Family | Not available. | |
| Chemical Formula | Not available. | |
| Supplier | SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248 | |

| Section 2. Composition and Information on Ingredients | | | | | |
|--|-----------|--------------------------|---------------------------|---------------------------|-------------|
| Name | CAS # | Exposure Limits | | | % by Weight |
| | | TWA (mg/m ³) | STEL (mg/m ³) | CEIL (mg/m ³) | |
| 1) Silica gel, Grade 636, 35-60 mesh | 7631-86-9 | 6 | | | 100 |
| Toxicological Data on Ingredients | | | | | |
| Silica gel ORAL (LD50): Acute: >15000 mg/kg [Rat (IUCLID Dataset)]. >20000 mg/kg [Rat (IUCLID Dataset)]. >31600 mg/kg [Rat (IUCLID Dataset)]. DERMAL (LD50): Acute: >2000 mg/kg [Rabbit (IUCLID Dataset)]. | | | | | |

| Section 3. Hazards Identification | |
|---|---|
| Potential Acute Health Effects | Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. |
| Potential Chronic Health Effects | CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to lungs, upper respiratory tract, eyes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. |

Section 4. First Aid Measures

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| Eye Contact | Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs. |
| Skin Contact | Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. |
| Serious Skin Contact | Not available. |
| Inhalation | If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately. |
| Serious Inhalation | Not available. |
| Ingestion | Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear. |
| Serious Ingestion | Not available. |

Section 5. Fire and Explosion Data

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| Flammability of the Product | Non-flammable. |
| Auto-Ignition Temperature | Not applicable. |
| Flash Points | Not applicable. |
| Flammable Limits | Not applicable. |
| Products of Combustion | Not available. |
| Fire Hazards in Presence of Various Substances | Not applicable. |
| Explosion Hazards in Presence of Various Substances | Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. |
| Fire Fighting Media and Instructions | Not applicable. |
| Special Remarks on Fire Hazards | Not available. |
| Special Remarks on Explosion Hazards | Heating a mixture of powdered magnesium and silica (later found not to be absolutely dry) caused a violent explosion rather than the vigorous reaction anticipated. |

Section 6. Accidental Release Measures

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| Small Spill | Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements. |
| Large Spill | Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities. |

Section 7. Handling and Storage

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| Precautions | Keep locked up.. Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. |
| Storage | Keep container tightly closed. Keep container in a cool, well-ventilated area. |

Section 8. Exposure Controls/Personal Protection

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| Engineering Controls | Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. |
| Personal Protection | Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. |
| Personal Protection in Case of a Large Spill | Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. |
| Exposure Limits | TWA: 5 (mg/m ³) [Canada] Total. TWA: 2 (mg/m ³) [Canada] Respirable. TWA: 6 (mg/m ³) from NIOSH [United States] Total. Consult local authorities for acceptable exposure limits. |

Section 9. Physical and Chemical Properties

| | | | |
|--------------------------------------|--|--------------|------------|
| Physical state and appearance | Solid. (Amorphous solid powder) | Odor | Odorless. |
| Molecular Weight | Not available. | Taste | Tasteless. |
| pH (1% soln/water) | Not applicable. | Color | White. |
| Boiling Point | 2230°C (4046°F) | | |
| Melting Point | 1700°C (3092°F) | | |
| Critical Temperature | Not available. | | |
| Specific Gravity | 2.1 (Water = 1) | | |
| Vapor Pressure | Not applicable. | | |
| Vapor Density | Not available. | | |
| Volatility | Not available. | | |
| Odor Threshold | Not available. | | |
| Water/Oil Dist. Coeff. | Not available. | | |
| Ionicity (in Water) | Not available. | | |
| Dispersion Properties | Not available. | | |
| Solubility | Insoluble in cold water. Very Slightly soluble in alkali. Soluble in hot KOH or NaOH solutions. Insoluble in ethanol. Insoluble in acids except Hydrofluoric Acid. | | |

Section 10. Stability and Reactivity Data

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| Stability | The product is stable. |
| Instability Temperature | Not available. |
| Conditions of Instability | Incompatible materials, moisture, excess dust generation. |
| Incompatibility with various substances | Not available. |

Continued on Next Page

Corrosivity Non-corrosive in presence of glass.

Special Remarks on Reactivity Hygroscopic.
Incompatible with hydrogen fluoride, xenon hexafluoride, oxygen difluoride, and chlorine trifluoride.

Special Remarks on Corrosivity Not available.

Polymerization Will not occur.

Section 11. Toxicological Information

Routes of Entry Inhalation. Ingestion.

Toxicity to Animals Acute oral toxicity (LD50): >15000 mg/kg [Rat (IUCLID Dataset)].
Acute dermal toxicity (LD50): >2000 mg/kg [Rabbit (IUCLID Dataset)].
Acute toxicity of the dust (LC50): >2.2 mg/l 1 hours [Rat].

Chronic Effects on Humans **CARCINOGENIC EFFECTS:** 3 (Not classifiable for human.) by IARC.
May cause damage to the following organs: lungs, upper respiratory tract, eyes.

Other Toxic Effects on Humans Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals > 5000 mg/kg oral LD50 Rat

Special Remarks on Chronic Effects on Humans May cause cancer based on animal test data

Special Remarks on other Toxic Effects on Humans Potential Health Effects:
Skin: May cause irritation with dryness of the skin in cases of severe exposure.
Eyes: No adverse effects expected, but dust may cause mechanical irritation.
Inhalation: Inhalation of dust may cause dryness and irritation to mucous membranes and respiratory tract in case of severe exposure. Chronic exposure may affect respiratory system (pneumoconiosis, interstitial pulmonary fibrosis, bronchoillitis obliterans). Symptoms include coughing and difficulty breathing and shortness of breath.
Ingestion: May be harmful if swallowed in large amounts. However, no adverse effects are expected for numeral industrial handling.
Silica gel is a 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. Epidemiological studies indicate a low potential for health effects.

Section 12. Ecological Information

Ecotoxicity Ecotoxicity in water (LC50): 440 mg/l 72 hours [Algae (Pseudokirchneriella subcapitata)]. 5000 mg/l 96 hours [Fish (Brachydanio rerio)]. 7600 mg/l 48 hours [Daphnia (Ceriodaphnia dubia)].

BOD5 and COD Not available.

Products of Biodegradation Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation Not available.

Special Remarks on the Products of Biodegradation Not available.

Section 13. Disposal Considerations

Waste Disposal Waste must be disposed of in accordance with federal, state and local environmental control regulations.

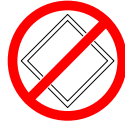
Section 14. Transport Information

DOT Classification Not a DOT controlled material (United States).

Identification Not applicable.

Special Provisions for Transport Not applicable.

DOT (Pictograms)



Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations Pennsylvania RTK: Silica gel
 Minnesota: Silica gel
 Massachusetts RTK: Silica gel,
 New Jersey: Silica gel
 California Director's List of Hazardous Substances: Silica gel
 TSCA 8(b) inventory: Silica gel

California Proposition 65 Warnings California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
 EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 231-545-4).
 Canada: Listed on Canadian Domestic Substance List (DSL).
 China: Listed on National Inventory.
 Japan: Listed on National Inventory (ENCS).
 Korea: Listed on National Inventory (KECI).
 Philippines: Listed on National Inventory (PICCS).
 Australia: Listed on AICS..

Other Classifications **WHMIS (Canada)** Not controlled under WHMIS (Canada).

DSCL (EEC) This product is not classified according to the EU regulations. Not applicable

HMIS (U.S.A.)

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|---------------------|---|
| Health Hazard | 1 |
| Fire Hazard | 0 |
| Reactivity | 0 |
| Personal Protection | E |

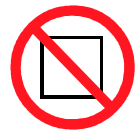
National Fire Protection Association (U.S.A.)

Health Flammability 0
 Reactivity 0
 Specific hazard 0

WHMIS (Canada) (Pictograms)



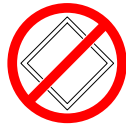
DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)



**ADR (Europe)
(Pictograms)**



Protective Equipment



Gloves.



Lab coat.



Dust respirator. Be sure to use an approved/certified respirator or equivalent.



Safety glasses.

Section 16. Other Information

MSDS Code S3308

References Not available.

Other Special Considerations Not available.

Validated by Sonia Owen on 7/2/2012.

Verified by Sonia Owen.

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CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.