



Safety Data Sheet

Silica Gel

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Silica Gel

Synonyms/Generic Names: Silicon dioxide, Amorphous Silica gel, Reversed Phase Silica Gel, Bonded Silica Gel

Product Number: CP-B4095D, CP-M4095D, CP-S4095D, CP-X4095D

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: ChemPure Brand Chemicals
39103 Warren Road
Westland, MI 48185

For More Information Call: 734-729-1805 (Monday-Friday 8:00-4:30)

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: According to OSHA 20 CFR 1019.1200 HCS, this chemical is not considered hazardous by the 2012 OSHA hazard Communication Standard.

Target Organs: None.

Signal Words: None

Pictograms: None

GHS Classification: Not a hazardous substance or mixture.

GHS Label Elements, including precautionary statements:

Hazard Statements:

Repeated or prolonged exposure may irritate eyes, skin and respiratory system.

Precautionary Statements:

Prevention: Use personal protective equipment as required.

Potential Health Effects

Eyes	May cause irritation.
Inhalation	May cause irritation.
Skin	May cause irritation.
Ingestion	Do not indigestion.

Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC or OSHA.

NFPA Ratings

Health	1
Flammability	0
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	1
Fire	0
Reactivity	0
Personal	A

A= safety glasses, gloves, dust respirator

0. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	EC No.	%
Amorphous silica gel	SiO ₂ •H ₂ O	7631-86-9 or 63231-67-4 or 112926-00-8	231-545-4	>99%

1. FIRST-AID MEASURES

Eyes	Rinse immediately with plenty of water, also under eyelids, for at least 15 minutes. Call a physician if irritation develops or persists.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician.
Skin	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician if irritation develops or persists.
Ingestion	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician.

0. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product is not flammable. Use water spray, foam, carbon dioxide (CO ₂) , dry chemical.
Special protective equipment and precautions for firefighters	Product is not flammable. Wear an approved positive self-contained breathing apparatus in addition to standard fire fighting gear.
Specific hazards arising from the chemical	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

2. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Material can create slippery conditions. Use non-slip safety shoes in areas where spills or leaks can occur. Avoid prolonged contact with eyes, skin and clothing.
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Environmental precautions	No special environmental precautions required.
Methods and materials for containment and cleaning up	Spill or Leak Occurs: Clean up spills in a manner that does not disperse dust into the air. Handle in accordance with industrial hygiene and safety practices. These practices include avoiding unnecessary exposure, and removal from eyes, skin and clothing. Prevent from entering drains. Disposal Method: Sweep up and shovel into suitable containers for disposal.
	Dispose in a facility for non-hazardous wastes. Spent material should be disposed of in accordance with State and Federal laws.
	Container Disposal: Do not reuse empty bags or drums. Dispose of used bags in facility permitted for non-hazardous wastes.

3. HANDLING AND STORAGE

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid prolonged contact with eyes and skin. Do not breathe dust. Keep away from ignition sources. Use in well ventilated areas. Protect containers from physical damage. Wash hands after handling.

Advice on protection against fire and explosion

Normal measures for preventive fire protection.

Storage

Conditions for safe storage, including any incompatibilities

Store in original container. Keep containers tightly closed in a dry, **cool** and well-ventilated place. Strongly hygroscopic. Noncombustible solid – TRGS 510.

4. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Ensure that eyewash stations and safety showers are close to the workstation location.

Control Parameters

Exposure Guidelines: This product does not contain any hazardous materials with occupational exposure limits established by the region regulatory bodies.

Component	OSHA PEL	ACGIH TLV	NIOSH DLH
Amorphous silica gel (7631-86-9)	80mg/m ³	TWA 3 mg/m ³ respirable 10 mg/m ³ inhalable	
Component	Canada Quebec	Canada Ontario TWA EV	Mexico OEL (TWA)
Silica, amorphous (7631-86-9)	TWA: 6 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³

ACGIH: American Conference of Governmental Industrial Hygienists
 OSHA: Occupational Safety and Health Administration
 NIOSH: National Institute of Occupational Safety and Health
 PEL: Permissible Exposure Limits established by OSHA

TLV: Threshold Limit Value a term ACGIH uses to express the maximum airborne concentration of a material to which most workers can be exposed during a normal daily and weekly work schedule without adverse effects.

MSHA: Mine Safety and Health Administration.

TWA: Total Weight Average, for an employee, during an 8 hour work shift of a 40-hour work week, which shall not be exceeded.

Personal Protection

Eyes	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH or EN 166. Safety glasses with side shields are recommended for any type of handling. Where eye contact or dusty conditions likely, dust tight goggles are recommended. Have eye washing equipment available.
Inhalation	Follow the OSHA respiratory regulations found in 29 CFR 1910.134 or European Standard EN 149. Keep dust exposure to a minimum with engineering and administrative controls. Use appropriate NIOSH/MSHA approved particulate respirators if necessary. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Use type N95 (US) or type P1 (EN 143) dust masks for nuisance levels of dust.
Skin	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Avoid skin contact with this product. Wear appropriate dust resistant clothing. Wash contaminated clothing and clean protective equipment before use. Wash skin thoroughly after handling. Full contact material : Nitrile rubber of minimum layer thickness 0.11mm and break through time 480 minutes.
Other	Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water handling and before eating, drinking or using tobacco. Safety shower and eye wash should be available close to work areas.

Other Recommendations: Contains no substances with occupational exposure limit values.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Solid, white powder
Odor	No Odor
Odor threshold	Not Applicable
pH	4 to 9 (5% slurry in water)
Melting point/freezing point	>1600°C
Initial boiling point and boiling range	2230°C
Flash point	Not applicable
Evaporation rate	Not Available
Flammability (solid, gas)	Not information available
Upper/lower flammability or explosive limit	Not information available
Vapor pressure	Not Available
Vapor density	Not information available
Relative density	2.2 g/mL at 25°C
Solubility (ies)	Slightly soluble in water (<0.1%)
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Molecular Formula	SiO ₂
Molecular Weight	60.08

10. STABILITY AND REACTIVITY

Reactivity	None known based on the information available
Chemical Stability	Stable under normal conditions. Avoid storing at high temperatures or in direct sunlight. Do not store above 24°C.
Possibility of Hazardous Reactions	No data is available.
Conditions to Avoid	Exposure to moisture.
Incompatible Materials	Reacts with hydrogen fluoride, fluoride, oxygen difluoride, chlorine trifluoride, strong acids, strong bases and oxidizers.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapors such a silicon oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicit

Skin	LD50 >5000 mg/Kg - Rabbit.
Eyes	Not Available
Respiratory	LC 50 >0.139 mg/L/4h - IUCLID.
Ingestion	LD50 Oral- Rat - >5,000 mg/kg

Toxicological information: Virtually nontoxic.

Toxicologically Synergistic Products: No information available.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long Term Exposure.

Skin irritation: Rabbit not irritating. IUCLID (2000).

Skin sensitization: Over 10 years exposure, worker did not have any skin sensitization.

Respiratory sensitization: This product is not expected to cause skin sensitization.

Carcinogenicity: Table below indicates if each agency has listed any ingredient as a Carcinogen.

Component	CAS-No.	IARC	NTP	ACGIH	OSHA	Mexico
Amorphous silica gel	7631-86-9	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

Mutagenic Effects: Animal testing did not show any mutagenic effects.

Reproductive Effects: Animal testing did not show any hazardous effects.

Development Effects: No information available.

Teratogenicity: No information available.

Specific Target Organ Toxicity – Single exposure: None known.

Specific Target Organ Toxicity – Repeated exposure: None known.

Aspiration: No information available.

Symptoms / Effects, Both Acute and Delayed: No information available.

Endocrine Disruptor Information: No information available.

Other Adverse Effects: The toxicological properties have not been fully investigated.

12. ECOLOGICAL INFORMATION

Toxicity

No toxicity limit of solubility. Do not empty into drains.

Ingredient	Test	Result	Species	Exposure
Amorphous Silica	LC50/96h/fish	>10000mg/L	Fish	96h
Amorphous Silica	EC50/24h/daphnia	=1000mg/L	Daphnia magna	24h
Amorphous Silica	EC50/72h/algae	>10000mg/L	Algae	72h

Persistence Degradability

No information available

Bioaccumulation Potential

Does not bioaccumulate. Accumulation in aquatic organisms is unlikely. Accumulation in terrestrial organisms is unlikely.

Mobility in Soil.

No information is available.

Other Adverse Effects.

No information is available.

13. DISPOSAL CONSIDERATIONS

Waste Residues / Water treatment Methods	This product is not considered a hazardous waste. Vacuum or shovel material into a closed container for reuse or disposal. Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary, before disposing of waste product container.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORT INFORMATION

US DOT	Not Dangerous Goods
TDG	Not Dangerous Goods
IMDG	Not Dangerous Goods
Marine Pollutant	Not Dangerous Goods
IATA/ICAO	Not Dangerous Goods

Special Precautions for User: No information available.

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
CERCLA	None of the chemicals in this material have an RQ.
SARA Codes	CAS#7631-86-9; 63231-67-4
SARA 311/312	
Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure	No
Reactive Hazard	No
SARA 313	No chemicals in this product are reportable under Section 313.

OSHA	Not applicable.
WHMIS Canada	S2 – Keep out of reach of children
DSL	Listed

Clean Air Act: This material does not contain any hazardous air pollutants, Class 1 Ozone depletors or Class 2 Ozone .

Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances, Priority Pollutants or Toxic Pollutants under CWA.

US DOT	Reportable Quantity (RQ):	No
	DOT Marine Pollutant:	No
	DOT severe Marine Pollutant:	No
US DHS	This product does not contain any DHS chemicals	

States Right-to-Know

Amorphous silica CAS# 7631-86-9; 63231-67-4

California Prop 65: Not listed. This product does not contain any chemicals known to the State of California to cause cancer; birth defects, or any other reproductive harm.

Massachusetts: Listed.

New Jersey Right to Know: Listed SN 1655

Pennsylvania: Listed

Florida: Listed

Rhode Island: Not Listed

Illinois: Not Listed

Connecticut – Hazardous Air Pollutants: Not Listed.

ECC Council Directives relating to the classification, packaging, and labeling of dangerous substances and preparations.

Risk and Safety Phrases:	S22: Do not breath dust.
	S24/25: Avoid contact with skin and eyes.

Mexico – Grade

No information available.

International Regulations

EINECS	Silica Gel	231-545-4
DSCL (EEC) R36/37/38		Irritating to eyes, respiratory system and skin.

16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association)	Rating (USA)
Health:	1
Flammability:	0
Instability:	0
Others:	none

HMIS (Hazardous Materials Identification System)	Rating (USA)
Health Hazard:	1
Physical Hazard:	0
Flammability:	0

This information is intended solely for the use of individuals trained in the particular system.

Revision	Date
1	03/28/2022

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