

MATERIAL SAFETY DATA SHEET

The Walter R. Earle Corporation

P.O. Drawer 757, Farmingdale, NJ 07727

Phone: (732) 308-1113 / Fax: (732) 462-9626



SECTION 1 – MANUFACTURER

MANUFACTURER'S NAME Phoenix Pinelands Corporation		EMERGENCY TELEPHONE NO.	
ADDRESS (NUMBER, STREET, CITY, STATE, ZIP) 9401 Route 539, Barnegat, NJ 08005			
CHEMICAL NAME AND SYNONYMS Silica, Crystalline Quartz (respirable)		TRADE NAME AND SYNONYMS Concrete Sand	
CHEMICAL FAMILY Silicon Dioxide, SiO ₂		FORMULA	

SECTION 2 – HAZARDOUS INGREDIENTS

Composition: SiO₂ 97% minimum Balance: Fe₂O₃, CaO, MgO, Al₂O₃, K₂O, TiO₂

Common Identity: Silica Sand, Crystalline Silica, Concrete Sand, Mason Sand, Septic Sand, or trade name.

Permissible Exposure Limit: Exposure to airborne crystalline silica shall not exceed an 8 hour time weighted average (TWA) limit as stated in 29CFR1910.1000 (see reference 1).

Threshold Limit Values: (TLV's) for exposure to respirable silica.

Respirable Silica TLV: 10/(% respirable silica + 2)mg/m³.

Total Silica TLV: 30/(% respirable silica + 2)mg/m³.

ACGIH TLV: 0.10mg/m³ for 8 hour time weighted (see reference 2).

NIOSH TLV: 0.05 mg/m³ for 10 hour shift, 40 hour week (see reference 3).

SECTION 3 – PHYSICAL DATA

BOILING POINT	4046° F	SPECIFIC GRAVITY	2.65
VAPOR PRESURE	N/A		
VAPOR DENSITY	AIR = 1 NONE	EVAPORATION RATE	Butyl Acetate = 1 NONE
SOLUBILITY IN WATER	Insoluble		
APPEARANCE AND ODOR			
Tan, White, or Gray - No Odor			

SECTION 4 – FIRE AND EXPLOSIVE HAZARD DATA

FLASH POINT	Non-Flammable	LEL	NONE
EXTINGUISHING MEDIA	None Required	UEL	NONE
FLAMMABLE LIMITS	NONE		
SPECIAL FIRE FIGHTING PROCEDURES	N/A		
UNUSUAL FIRE AND EXPLOSION HAZARDS	N/A		

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SECTION 5 – HEALTH HAZARD DATA

ROUTE OF ENTRY	INHALATION: YES / SKIN: NO
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INGESTION:	NO
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Acute and chronic health hazards:

Prolonged exposure to respirable crystalline silica may cause delayed (chronic) lung injury (silicosis). Silicosis may occur over periods of time under moderate exposures. Silicosis is a form of disabling pulmonary fibrosis which can be progressive and may lead to death.

Silica as related to Carcinogenicity:

Categorized in a group of substances which may “reasonably be anticipated to be carcinogens.” IARC Monographs? YES OSHA? NO (see reference 4,5); under review at present. Signs and symptoms of exposure: Shortness of breath, reduced pulmonary function, coughing, wheezing. Medical conditions generally aggravated by exposure. Bronchitis, emphysema and asthma, smoking is known to aggravate the effects of exposure.

SECTION 6 – REACTIVITY DATA

STABILITY	STABLE
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INCOMPATIBILITY	Contact with powerful agents such as molten magnesium, fluorine, chlorine triblouride, manganese trioxide, oxygen, difluoride, may cause fires.
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HAZARDOUS DECOMPOSITION PRODUCTS	Will dissolve in hydrofluoric acid and produce a corrosive gas.
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HAZARDOUS POLYMERIZATION	WILL NOT OCCUR
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SECTION 7 – PERCAUTION FOR SAFE HANDLING AND USE

Release or Spill Action: Use dustless method (water or vacuum) if not contaminated. If contaminated use recommended method for contaminate.

Waste Disposal Method: Dispose in accordance with federal, state and local regulations.

Other precaution: Use ventilation and dust control systems as the primary methods to control dusts from these products.

Respirators: Maintain and use respirators to enhance ventilation and dust collection measures. Employ good housekeeping procedures and avoid accumulation dust.

Workplace Dust Surveys: Users of this product shall survey their work areas for respirable silica (see reference 8, 9).

SECTION 8 – CONTROL MEASURES

RESPIRTORY PROTECTION	IF DUSTY CONDITIONS EXSIT, USE DUST MASKS THAT MEET MSHA/NIOSH STD. FOR RESPIRABLE DUST.
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VENTILATION	LOCAL EXHAUST
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PROTECTIVE GLOVES	NORMAL PLANT WEAR
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EYE PROTECTION	RECOMMENDED
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SECTION 9 – REFERENCES

1:	Code of Federal Regulations 29CFR1910.1000: "Air Contaminates" Occupational Safety and Health Administration, Washington, DC.
2:	Threshold Limit Values and exposure Polices for Chemical Substances in Workroom Air", American Conference of Governmental Industries Hygienists, Cincinnati, OH 1987.
3:	"Guide to Industrial Respiratory Protection", National Institute of Occupational Safety and Health (NIOSH) Publication 87-116, NIOSH, Cincinnati, OH 1987.
4:	IARC Monographs on the evaluation of the risks of chemicals to humans – silica and silicates, Volume 42. World Health Organization, International Agency for Research on Cancer, Lyon France 1987.
5:	IARC Monographs on the evaluation of the risks of chemicals to man – Overall Evaluation of Carcinogenicity, an updating of IARC Monograph, Volumes 1 to 42 Supplement 7, World Health Organization, International Agency for Research on Cancer, Lyon France 1987.
6:	Code of Federal Regulations 29CFR1910.1000: "Respiratory Protection" Occupational Safety and Health Administration, Washington, DC.
7:	"American National Standard Institute: Practices for Respiratory Protection" ANSI Z88.2-1980, ANSI, New York 1980.
8:	"Air Quality: Health Standards for Abrasive Blasting...Final Rule" Federal Register 59.34 2/18/94.
9:	ASTM E1132-89 (Re-approved 1993) "Standard Practice for Health Requirements Related to Occupational Exposure to Quartz Dust" American Society for Testing and Materials, Philadelphia, PA.
	NOTICE: The information contained in this MSDS is believed to be correct, we offer no warranty expressed or implied with no liability in connection with any use of this information. Customers and users of these silica products must comply with all applicable Federal, State and Local regulations. Trade names listing of silica dioxide used may include; Concrete Sand, Mason Sand, Washed Gravel Fill, Beach Sand, Play Sand, Sewage Sand, Traction Sand, Grits, Fill, etc.