



I. Chemical Product and Company Identification

Product Name: PA Specific 40/70 mesh Sand
Identification #: 35-542-4070
Product Use/Class: Bulk Sand
Supplier: Nabors Completion and Production Services
515 W. Greens Road, Suite 1100, Houston, TX 77067
Supplier Tracking Code: 1278
Emergency Contact: CHEMTREC 1 (800) 424-9300
Prepared By: LZ
Date Prepared: 01/14/2013

II. Composition/Information on Ingredients

Chemical Name: Crystalline Silica (in the form of quartz)
CAS Number: 14808-60-7
Percent by Mass Less Than: 87-99.9%

Exposure Limits

Threshold Limit Value - Time Weighted Average: .05 mg/m3 respirable
Threshold Limit Value - Short Term Exposure Limit: NI
Permissible Exposure Limit - Time Weighted Average: 10 mg/m3/(%SiO2+2) r
Permissible Exposure Limit - Ceiling: NI
Company Threshold Limit - Time Weighted Average: NI
Skin: NI

III. Hazardous Identification

Emergency Overview: Lung injury and cancer hazard. Do not breath dust. May cause delayed lung injury. Long term exposure can cause silicosis.

Eye Contact: May cause eye irritation and possible injury.
Skin Contact: No adverse effects anticipated.
Inhalation: Lung injury and cancer hazard. Do not breath dust. May cause delayed lung injury. Long term exposure can cause silicosis.
Ingestion: No adverse effects anticipated.
Chronic Harards: Lung injury and cancer hazard. Do not breath dust. May cause delayed lung injury. Long term exposure can cause silicosis.

Primary Route(s) of Entry:	<input type="checkbox"/> Skin Contact	<input checked="" type="checkbox"/> Eye Contact	<input type="checkbox"/> Ingestion
	<input type="checkbox"/> Skin Absorbtion	<input checked="" type="checkbox"/> Inhalation	

IV. First Aid Measures

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention if irritation persists.
Skin Contact:	No first aid needed.
Inhalation:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. Get prompt medical attention!
Ingestion:	If large amount swallowed, DO NOT induce vomiting. Get medical attention IMMEDIATELY.

V. Fire Fighting Measures

Flash Point:	Non-flammable
Auto Ignition Temperature:	NA
Lower Explosive Temp.:	NA
Upper Explosive Temp.:	NA
Extinguishing Media:	Use media suitable for surrounding material.
Unusual Fire and Explosive Harards:	None expected.
Special Fire Fighting Procedures:	As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. Use water to keep containers cool.

VI. Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled:	Wear appropriate protective equipment. If uncontaminated, collect using dustless method and place in appropriate container for use. If contaminated: a) use appropriate method for the nature of the contamination, and b) consider possible toxic or fire hazards associated with the contaminating substances. Collect for appropriate disposal.
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VII. Handling and Storage

Handling:	Do not breath dust. Do not rely on your sight to determine if dust is in the air. Silica may be in the air without a dust cloud. Avoid creation of respriable dust. Do not use a dry abrasive blasting agent, this is prohibited.
Storage:	Use good houskeeping in storage and use ares to prevent accumulation of dust in work area. Use adequate ventilation and dust collection.

VIII. Exposure Controls/Personal Protection

Engineering Controls:	Local exhaust and ventilation is necessary.
Respiratory Protection:	A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive air supply respirator if there is any potential for an uncontrolled relase, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Skin Protection:	Wear impervious gloves, shoes, and protective clothing to prevent skin contact.
Eye Protection:	Wear safety goggles or glasses as appropriate for the job.
Other Protective Equipment:	None anticipated.
Hygienic Practices:	Wash thoroughly after handling. Remove dusty clothing and wash before reuse. Avoid breathing dust.

IX. Physical and Chemical Properties

Boiling Point:	Boiling point = 4046 F	Vapor Density:	NA
Odor:	odorless	Odor Threshold:	NA
Appearance:	White to tan fine granules	Evaporation Rate:	None.
Solubility in H2O:	Negligible	Specific Gravity:	2.65
Freeze Point:	NI	pH at 50.0%:	6-7.5
Vapor Pressure:	10mm @ 1730oC	Viscosity:	NI
Physical State:	Solid		
Coefficient of Water Oil Distribution:	NI		

X. Stability and Reactivity

Conditions to Avoid:	Avoid temperature extremes, and incompatibles.
Incompatibility:	Powerful oxidizing agents, hydrofluoric acid, strong alkalis, metallic oxides.
Hazardous Decomposition Products:	Silica will dissolve in hydrofluoric acid producing a corrosive gas, silicon tetrafluoride. When exposed to high temperatures, may change crystalline structure to form tridymite (above 870C) or Cristobalite (above 1470C) which pose greater health hazards than quartz.
Hazardous Polymization:	Will not occur.
Stability:	Stable

XI. Toxicological Properties

Toxicological Properties:	IARC and the National Toxicology Program have determined that there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite. Among individuals with silicosis, lung cancer occurs more frequently in those who smoke.
Oral:	No product information is available.
Dermal:	No product information is available.
Inhalation:	TClo: 16mppcf/8hr/17.9yrs LClo: 300mgs/m3/10yrs

XII. Ecological Information

Ecological Properties:	May be toxic to marine life.
Ecotoxicity:	Aquatic Toxicity Rating TLm 96: over 1000 ppm
Chemical Fate Information:	No product information is available.

XIII. Disposal Consideration

Disposal Method:	Consult local, state, and federal regulatory agencies for acceptable disposal procedures and disposal locations. Disposal in streams or sewers may be prohibited by federal, state, and local regulations.
RCRA Status:	Not classified a hazardous waste.

XIV. Transportation Information

XV. Regulatory Information

OSHA: No OSHA information listed.
TSCA Status: Crystalline silica (quartz) is on the EPA Toxic Substance Control Act (TSCA) Section 8(b) inventory under CAS No. 14808-60-7.
CERCLA SARA: No Information
SARA Section 313
Required Reporting:

XVI. Other Information

Other Information: NA = Not applicable ND = Not Determined NI = No Information NE = Not Established
MSDS Updated:
MSDS Printed: 1/9/2015

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, or when used in conjunction with other products, exposures must be evaluated by the user so that appropriate handling practices and training programs can be established to ensure safe workplace operations. This information is confidential to Nabors Completion & Production Services Company (Nabors) and intended solely for the use of the individual or entity to whom they are directly distributed. Distribution or use beyond the individual or entity is strictly prohibited without the consent of Nabors.