SAFETY DATA SHEET

Section 1: Product and Company Identification

Trade Name as Labeled: Jurassic Playsand, Original Jurassic Play Sand and Jurassic Sand (sold in 10 lb, 25 lb and 50 lb sizes).
Chemical Name and Ingredients: Crystalline silica (quartz), SiO_2
Producer: Salix Corporation
1961 S. Scenic Drive
Salt Lake City UT 84108 USA
Telephone: 877-531-8600
E-mail: sandman@jurassicsand.com
Emergency Telephone Number: 801-450-8925
Product Uses: Play sand for sandboxes, sand and water tables, sensory bins and therapy sand trays. Not for industrial use.

Section 2: Hazard Identification

The sand is orangy-red in color. It has no odor and is not flammable, combustible or explosive. It does not cause burns or severe skin or eye irritation. A single exposure will not result in serious adverse health effects. Crystalline silica (quartz) is not known to be an environmental hazard.

Personal protective equipment – respirator – is not required unless the concentration of respirable silica dust exceeds applicable occupational exposure levels.

Crystalline silica (quartz) is incompatible with hydrofluoric acid, fluorine, chlorine trifluoride or oxygen difluoride.

Ingestion: Not listed

Inhalation: Avoid breathing dust as much as possible. Possible health effects of inhalation are as follows: *Silicosis* – Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. *Lung Cancer* – Crystalline silica (quartz) inhaled is classified by IARC as a carcinogen. *Tuberculosis* – Silicosis increases the risk of tuberculosis. *Autoimmune and Chronic Kidney Disease* – Some studies show excess numbers of cases of scleroderma, connective tissue disorders, lupus, rheumatoid arthritis, chronic kidney diseases and end-stage kidney disease in workers exposed to respirable crystalline silica. *Non-Malignant Respiratory Diseases (other than silicosis)* – Some studies show an increased incidence in chronic bronchitis and emphysema in workers exposed to respirable crystalline silica.

Eye Contact: Abrasive in eyes.

Skin Absorption: Not available.

Skin Contact: Not available.

Effects of Overdose: Acute Effects: Short term exposure to silica may result in mild to temporary discomfort in the respiratory tract (similar to nuisance dust). Short term exposure to excessive amounts of silica may cause severe inflammation of the lungs possibly coupled with fluid in the lungs, resulting in shortness of breath and low blood oxygen levels. Excessive inhalation of crystalline silica in a short time is a serious health concern.

Chronic Effects: Long term exposure (10 years - 30 years), may result in pulmonary fibrosis (silicosis). Aggravates bronchitis, asthma and emphysema.

Section 3: Composition/Information on Ingredients

Chemical Name and synonyms	C.A.S No.	Chemical Formula	WT% Hazardous	TLV	PEL
Crystalline Silica (Quartz)	14808-60-7	SiO_2	90%-99.9%	Respirable Dust Quartz: 0.025 mg/m^3	Respirable Dust 10 mg/m^3 / ($\%SiO_2$ + 2)

Note – National Institute for Occupational Safety and Health (NIOSH): Recommended standard maximum permissible concentration=0.05 mg/m^3 (respirable free silica) as determined by a full-shift sample up to 10-hour working day, 40-hour work week. See NIOSH criteria for a Recommended Standard Occupational Exposure to Crystalline Silica.

Section 4: First Aid Measures

Ingestion: First aid procedures not normally required. If gastrointestinal discomfort occurs, give one or two glasses of water. Seek medical attention if conditions persist.

Inhalation: No specific first-aid is necessary since the adverse health effects associated with inhalation of respirable crystalline silica result from chronic exposures. If there is a gross inhalation of crystalline silica, remove the person immediately to fresh air, give artificial respiration as needed, seek medical attention as needed.

Eye Contact: Immediately wash eyes with large amounts of water. If irritation or redness persists, consult a physician.

Skin Contact: Wash with soap and water. If irritation persists, consult a physician.

Section 5: Fire Fighting Measures

Fire Hazard Data:

Auto Ignition: Not applicable
Flash Point: Not applicable
Flammability Limits (vol/vol%): **Lower:** Not applicable **Upper:** Not applicable

Extinguishing Media:
Product is not flammable, combustible or explosive. Use media appropriate for surrounding fire.
Special Fire Fighting Procedures: Not applicable
Unusual Fire and Explosion Hazards: None

Section 6: Accidental Release Measures

Accidental Release: Wear suitable protective clothing. Wear eye/face protection. Caution – spillages may be slippery. Avoid generation of dust. Sweep or preferably vacuum up and collect in suitable containers for recovery or disposal.

Section 7: Handling and Storage

Precautions During Storage: Avoid breakage of bagged material or spills of bulk material.

Section 8: Exposure Control/Personal Protection

Local Exhaust: Use sufficient local exhaust. DO NOT USE FOR SANDBLASTING.
Eye Protection: Use safety glasses, goggles, or face shield (as appropriate) under circumstances where particles could cause injury to the eye.

Section 9: Physical and Chemical Properties

Boiling Point:	4046°F	Grain density:	2.65 gm/cc
Density:	100 lbs/ft^3	Solubility in water:	None
Flashpoint:	Not applicable	% Volatiles (by volume):	Not Applicable
pH:	Not listed	Vapor Pressure, mm Hg:	Not Applicable
Extinguishing Media:	NA - Non-flammable	Reaction with Water:	None
Appearance:	Very hard, fine grained orangy-red sand particles.		

Section 10: Stability and Reactivity

Stability (normal conditions):	Stable
Conditions to Avoid:	None Listed
Incompatibility (materials to avoid):	CIF_3, MNF_3, OF_2
Hazardous Decomposition Products:	None
Hazardous Polymerization:	Will not occur

Section 11: Toxicological Information

Inhalation of respirable crystalline silica can cause serious and fatal lung and systemic diseases. The major concern is silicosis, which occurs several forms, chronic (or ordinary), accelerated, or acute. The International Agency for Research on Cancer ("IARC"), the NIEHS National Toxicology Program (NTP), the American Thoracic Society, and the National Institute for Occupational Safety and Health (NIOSH) all conclude that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is *carcinogenic to humans* (Group 1)." Exposure to respirable crystalline silica and persons with have an increased incidence of scleroderma, an immune system disorder manifested by a fibrosis (scarring) of the lungs, skin and other internal organs, and are at increased risk to develop tuberculosis. Exposure to respirable crystalline silica has also been associated with an increased incidence of kidney disorders and an increased incidence of arthritis.

See web sites of the U.S. Department of Labor (DOL) Occupational Safety and Health Administration (OSHA), www.osha.gov, the National Institute for Occupational Safety and Health (NIOSH), http://www.cdc.gov/niosh/homepage.html (http://www.cdc.gov/niosh/silicpag.html - NIOSH Hotlinks to Silicosis Prevention.), and the Mine Safety and Health Administration (MSHA), www.msho.gov (contains general

not mining specific) information on silicosis. Click on "Silicosis Prevention"), for more detailed information on the health effects of respirable crystalline silica.

Section 12: Ecological Information

Sand is not ecotoxic; i.e., no data suggests that sand or crystalline silica (quartz) is toxic to birds, fish, invertebrates, microorganisms or plants.

Section 13: Disposal Considerations

General: The product may be landfilled. Disposed material should be covered to minimize generation of airborne dust.

RCRA: Sand is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations.

Section 14: Transport Information

Sand is not a hazardous material for purposes of transportation under the U.S. Department of Transportation Table of Hazardous Materials.

Section 15: Regulatory Information

TSCA: Crystalline silica (quartz) appears on the EPA TSCA inventory under the CAS No. 14808-60-7.
RCRA: Crystalline silica (quartz) is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR 261 et seq.
Emergency Planning and Community Right to Know Act (SARA Title III): Crystalline silica (quartz) is not an extremely hazardous substance under Section 302 and is not a toxic chemical subject to the requirements of Section 313.
FDA: Silica is included in the list of substances that may be included in coatings used in food contact surfaces, 21 CFR 175.300(b)(3)(xxvi).
OSHA Carcinogen: Crystalline silica (quartz) is not listed.

Carcinogenicity: by IARC?: Yes (X) No( ) by NTP?: Yes (X) No( )
IARC (International Agency for Research on Cancer) classifies crystalline silica in Group 1, known human carcinogen." NTP (National Toxicology Program) classifies respirable crystalline silica in a category of substances which is "*known to be a human carcinogen."*

California Prop 65: Yes (X) No ( )
Silica, crystalline (airborne particles of respirable size), is cited in 90 California Reg. Notice 984, Safe Drinking Water and Enforcement Act of 1986, as known to the state of California to cause cancer.

California Inhalation Reference Exposure Level (REL): California established a chronic REL of 3ug for silica (crystalline, respirable). A chronic REL is an airborne level of a substance at or below which no adverse health effects are anticipated in individuals indefinitely exposed to the substance at that level.

WHMIS Classification: D-2A

Voluntary Porduct Standard Compliance with ASTM F-963-11 Part 4.3.5 Heavy Elements

Massachusetts Toxic Use Reduction Act: Silica, crystalline (respirable size, <10 microns) is "toxic" for purposes of the Massachusetts Toxic Use Reduction Act.

Pennsylvania Worker and Community Right to Know Act: Quartz is a hazardous substance under the Act, but it is not a special hazardous substance or an environmental hazardous substance.

Section 16: Other Information

Hazardous Material Information System (HMIS):

Health	*****
Flammability	**0**
Reactivity	**0**
Protective Equipment	**E**

***Severe Chronic Hazard For further information on health effects, see Section 2 and Section 11 of this MSDS.**

National Fire Protection Association (NFPA):

Health	**0**
Flammability	**0**
Reactivity	**0**

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