



Material Safety Data Sheets

may be used to comply with
OSHA's Hazard Communication Standard.
29 CFR 1920.1200. Standard must be
consulted for specific requirements

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

Identity (As Used on Label and List)

Rio Pumice Powder

Note: Blank spaces are not permitted. If any item is not applicable, or
information is not available, the space must be marked to indicate that.
(N/A = Not Applicable)

Section I

Date Prepared:

January 31, 2001

Section II – Hazardous Ingredients / Identity Information

Hazardous Components (Specific Chemical Identity: Common Names)

Silica, amorphous

OSHA PEL
80 mg/m³
%SiO₂

ACGIH TLV
10 mg/m³ (inhalable)
3 mg/m³ (respirable)

Quartz, CAS No. 14808-60-7

As respirable material, less than 0.1%

In non-respirable bulk material, greater than 0.1%

10 mg/m³
%SiO₂ + 2

0.05 mg/m³, respirable dust

Other principal, inert components: **Complex silicates or oxides of Al, K, Na, Fe, Ca, Mg, Ti.**

Chemical Identity, major components: **Amorphous Silicon Dioxide (SiO₂),**
M_xO_y • SiO₂ (M=Al, Ca, Mg + other minor metal oxides, with bound silica (SiO₂))

Common Names: **Pumice, volcanic glass**

HMIS (Hazardous Materials Identification System Ratings – NPCA/CPCA)

Based on hazard rating of 4 = Most severe

Health 0

Flammability 0

Reactivity 0

Personal Protection Use approved dust mask; goggles to prevent eye irritation

Section III – Physical/Chemical Characteristics (N/A = Not Applicable)

Boiling Point: **N/A** Specific Gravity: **2.4**

Vapor Pressure (mm Hg): **N/A** Melting Point: **N/A**

Vapor Density:
Air = 1) **N/A** Evaporation Rate:
(Butyl Acetate = 1) **N/A**

Solubility in Water: **Negligible**

Appearance and Odor: **Off-white powder. No odor.**

Section IV – Fire and Explosion Hazard Data

Flash Point: **N/A** Flammable Limits: **N/A** LEL: **N/A** UEL: **N/A**

Extinguishing Media: **N/A**

Special Fire Fighting Procedures: **N/A**

Unusual Fire and Explosion Hazards: **None**

Section V – Reactivity Data

Stability	Unstable	Conditions to Avoid: No special precautions
	Stable X	

Incompatibility (Materials to Avoid): No incompatibility. (Reacts with hydrofluoric acid; soluble in HF)

Hazardous Decomposition of Byproducts: None

Hazardous Polymerization	May Occur	Conditions to Avoid: No other hazards in this regard
	Will Not Occur X	

Section VI – Health Hazard Data

Route(s) of Entry:	Inhalation?	Yes	Skin?	No	Ingestion?	Non-hazardous
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Health Hazards (Acute and Chronic): Irritation of the upper respiratory tract and lungs may result from accidental or chronic occupational exposure to the dust of this product. Dust may also cause lung damage when inhaled.

Carcinogenicity:	NTP?	No	IARC Monographs? Vol. 68 (1997), In Group 3. (Not classifiable as to carcinogenicity to humans.)	OSHA Regulated? No
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Signs and Symptoms of Exposure: Exposure may result in coughing, wheezing, shortness of breath, tightness in chest, irritation of the upper respiratory tract, and damage to lung tissue.

Medical Conditions Generally Aggravated by Exposure: Pre-existing asthma, bronchitis, emphysema and other lung and respiratory ailments may be aggravated by exposure to dust.

Emergency and First Aid Procedures: Material is non-poisonous. Eyes – Flush with copious amounts of cool, fresh water for 15 minutes. Inhalation – Blow nose, rinse mouth, drink water to clear throat. Remove to fresh air. If symptoms persist, see a physician promptly.

Section VII – Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled: Mist lightly with water, sweep up and transfer to a closed container, or vacuum with equipment fitted with an effective filter. Transfer any broken bags to new bags without emptying original bags.

Waste Disposal Method: Bury as non-toxic waste in an approved landfill.

Precautions to be Taken in Handling and Storing: Use techniques that minimize generating dust.

Other Precautions: Material, when wet, may be slippery on a smooth flooring. Use caution.

Section VIII – Control Measures

Respiratory Protection: Use an approved dust mask, such as a particulate filter respirator.

Ventilation	Local Exhaust: Recommended	Special, Other: Use filter-equipped vacuum to remove dust; do not blow off with compressed air.
	Mechanical (General): Vacuum all spills	

Protective Gloves: Not Required

Eye Protection: Goggles recommended.

Other Protective Clothing or Equipment: Not required.

Work/Hygienic Practices: Avoid vigorous shaking of bags. Clean clothes with vacuum hose, not by blowing off.

"The information herein is given in good faith, but no warranty, express or implied, is made."

PHYSICAL PROPERTIES & CHEMICAL ANALYSIS

The following tables list the typical physical and chemical properties of Rio Pumice Powder.

Typical Physical Properties

Moisture	<1.0%
Specific Gravity	2.4
Weight per gallon, pounds	19.99
Bulking Value, gallons per pound	0.05
MOHS Hardness	5.5-6.0
Refractive Index	1.5
pH (10% in water)	8.0-10.0
Crystalline Silica Content	**see note
Color	Near White

Typical Chemical Analysis

SiO ₂	75%
Al ₂ O ₃	12%
K ₂ O	4%
Na ₂ O	4%
Fe ₂ O ₃	<2%
CaO	<2%
MgO	<2%
TiO ₂	<2%

** Quartz, CAS No. 14808-60-7; in non-respirable bulk material greater than 0.1%; as respirable material, less than 0.1%.

Typical Screen Analyses of Grades

100 Gram Samples are Screened Dry on Rotap Shaker for 10 Minutes with Sieves Meeting ASTM E11-61T (procedure similar to ASTM D392, Method A)

US Standard Mesh			Percentages on each Mesh — note T = Trace (less than 0.5 grams)											
			GRADES											
Size No	Inches Opening	Microns	FFFF	FFF	FF	0	0 1/2	0 3/4	1/2	1	1 1/2	3	4	5
10	0.0787	2000												
14	0.0555	1400											1-40	1-40
20	0.0331	850											25-55	35-60
30	0.0234	600										T-5	5-30	10-40
40	0.0165	425									T-10	20-60	5-30	1-15
50	0.0117	300							T-10	T-10	15-50	40-60	1-20	
60	0.0098	250							1-10	15-35	35-55	10-30	T-5	
80	0.0070	180				T-5	T-10	T-10	30-60	35-55	5-30	1-10		
100	0.0059	150				T-5	1-10	1-10	20-35	15-30	T-15	T-5		
120	0.0049	125				1-10	1-15	1-15	10-25	1-10				
140	0.0041	106				1-15	10-30	10-30	1-10					
170	0.0035	90			T-10	1-15	10-30	10-25						
200	0.0029	75	T	T-2	5-10	1-15	10-25	10-20						
325	0.0017	45	10-20	10-25	10-25	10-25	20-40	20-35						
Pan			80-90	75-90	70-80	40-70	1-10	1-10	T-10	T-5	T-5	T-5	T-10	T-5
Totals			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Oil Absorption (ASTM D281)			Actual	45	45	45	45	45	45	45	45	45	N/A	N/A
			Saturation	45	45	45	45	45	70	75	90	105	105	N/A
Apparent Bulk Density lbs/cu.ft. poured loose and leveled per ASTM C29 as dry powder			48	47	45	44	37	36	34	32	31	29	28	26

Actual Oil Absorption is the number of pounds of oil per 100 pounds of pumice to completely coat the particle surface. Saturation Oil Absorption is the number of pounds of oil per 100 pounds of pumice to completely fill the voids between particles.

Detailed information regarding this test is available on request.

Unless otherwise noted, all information shown is "typical." Data may vary from your laboratory results according to test methods used. Read Material Safety Data Sheets before using.