

Grog - 12m - 20m 30m

MATERIAL SAFETY DATA SHEET

MARYLAND REFRACTORIES COMPANY
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Trade Name: Silica Grog

Date revised: 5/1/97

Revised by: R. T. Oxnard

SECTION I - PRODUCT IDENTIFICATION

Chemical Name: Silicon Dioxide
Common Name: Silica, Crystalline

SECTION II - CHEMICAL COMPOSITION

Ingredient	Typical %	CAS #	OSHA PEL	IARC Carcinogen
SiO ₂	93 - 97			
Quartz	< 1	14808-60-7	10mg/m ³ % quartz x 2	Y
Tridymite	54	15468-32-3	1/2 of quartz PEL	
Cristobalite	30	14464-46-1	1/2 of quartz PEL	Y
Amorphous	13			
AL ₂ O ₃	< 2	1344-28-1	10.0 mg/m ³	
CaO	< 4			
Fe ₂ O ₃	< 2			

SECTION III - PHYSICAL DATA

Appearance and Odor: Gray colored granular product, odorless.

SECTION IV - FIRE AND EXPLOSION DATA

This product will not support combustion and may be used as an extinguishing media.

SECTION V - HEALTH HAZARDBreathing dust is a health hazard. PEL (Permissible Exposure Level) for free crystalline silica 0.1 mg/m³.

Route of entry: Inhalation

Effects of overexposure: Cancer and Silicosis. The Hazard associated with crystalline silica occurs when fine dust is inhaled over an extended period of time.

SECTION VI - REACTIVITY DATA

Stability and Reactivity: This product is stable.

Hazardous Decomposition: None

SECTION VII - SPILL AND LEAKS PROCEDURES

Spills and leaks should be cleaned up and disposed of by a procedure that will eliminate the generation of respirable dust. This can be accomplished by dampening the material with water before sweeping.

SECTION VIII - INDUSTRIAL HYGIENE INFORMATION

- Ventilation:** Local Exhaust and dust collection should be maintained to keep exposure below dust TLV.
- Protective Clothing:** NIOSH/MSHA approved respirators with a minimum rating equal to the TLV should be worn when exposures exceed the TLV.
- Protective Clothing:** Clothing should be cleaned in a manner that avoids the generation of respirable dust.

SECTION IX - SPECIAL PRECAUTION

- Special Precautions:** Proper ventilation and breathing protection should be used in dusty areas.
- Precautionary Labeling:** Long-term exposure to airborne dust in excess of permissible exposure limits Without proper respiratory protection may create cancer risks.

SECTION X - SPECIAL INFORMATION

- A. The OSHA Hazard Communication Standard requires that manufacturers report any new significant information regarding the potential health hazard of chemicals in their workplace. In October 1996, The International Agency for Research on Cancer (IARC) reviewed the hazards of crystalline silica. They made the following evaluation which will be contained in IARC Monograph No. 68 when it is officially published in 1997.

There is sufficient evidence in humans of the carcinogenicity of inhaled crystalline silica in forms of quartz or cristobalite from occupational sources.
There is inadequate evidence in humans for the carcinogenicity of amorphous silica.
There is sufficient evidence in experimental animals of the carcinogenicity of quartz and cristobalite.
There is limited evidence in experimental animals of the carcinogenicity of tridymite.
There is inadequate evidence in experimental animals of the carcinogenicity of diatomaceous earth
There is inadequate evidence in experimental animals of the carcinogenicity of synthetic amorphous silica.

Overall Evaluation
Inhaled crystalline silica in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1).

- B. Silica and Alumina are listed as hazardous on the OSHA Z - Table and TLV list.