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#601 Custodial

46 GROG

MATERIAL SAFETY DATA SHEET

This covers all sizes HD Grog

MARYLAND REFRACTORIES COMPANY
P.O. BOX 267, SALISBURY ROAD
IRONDALE, OHIO 43932

Emergency Phone Number
Day (216)532-9845
Night(412)269-9633

Date Revised: 01/01/89
Trade Name: High Duty Grog

********** SECTION 1 - PRODUCT IDENTIFICATION **********

Chemical Name: Alumina Silicate
Chemical Family: Fireclay

********** SECTION II - CHEMICAL COMPOSITION **********

Silica*	more than 50%
Alumina*	more than 35%
Iron Oxide	less than 2%
Titania	less than 2%

*(Some of this combines to form fireclay.)

********** SECTION III - PHYSICAL DATA **********

Appearance and Odor: Buff colored granular product, odorless.

********** SECTION IV - FIRE AND EXPLOSION DATA **********

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

********** SECTION V - HEALTH HAZARD **********

TLV for free crystalline silica 0.1 mg/m3

Route of Entry: Inhalation
Effects of Overexposure: Silicosis; the hazard associated with crystalline silica occurs when the dust is inhaled and deposited in the small air passages of the lungs. The lung tissue reacts by forming fibrous scar tissue around the dust particles. Such scar tissue prevents the easy interchange of oxygen and carbon dioxide in the lungs. In addition, scar tissue does not stretch as easily as healthy tissue.

********** 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.

******* SECTION VIII - INDUSTRIAL HYGIENE INFORMATION**********

Ventilation: Local Exhaust and dust collection should be maintained to maintain exposure below TLV.

Respiratory Protection: 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 matter 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 permissable exposure limits without proper respiratory protection may create cancer risks.

********** SECTION X - SPECIAL INFORMATION **********

A. A portion of the OSHA Hazard Communication Standard requires that manufacturers, importees and employers report any new or significant information regarding the potential health hazard of a chemical in their workplace. Therefore, we have included the results of the investigation by The International Agency for Research on Cancer (IARC). They resolved in their research entitled "IARC Monographs on The Evaluation Of The Carcinogenic Risk of Chemicals to Humans, Silica and Same Silicates", Vol. 42 which met in Lyon, France 10-17 June, 1986, that free crystalline silica is a Class 2A carcinogen. Placing silica in Class 2A requires statement of definition on any material MSDS that contains silica. IARC defines a Class 2A carcinogen as follows:

> There is sufficient evidence for the carcinogenicity of crystalline silica to experimental animals.
> There is inadequate evidence for the carcinogenicity of amorphous silica to experimental animals.
> There is limited evidence for the carcinogenicity of crystalline silica to humans.
> There is inadequate evidence for the carcinogenicity of amorphous silica to humans.

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

SECTION VI — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

5 mg/m^3 as Zr and 1.67 mg/m^3 as silica.

EFFECTS OF OVEREXPOSURE

Possible lung irritation from silica.

EMERGENCY AND FIRST AID PROCEDURES

Eyes: Normal washing to remove dust.
Inhalation: Remove to fresh air.
Ingestion: Call a physician.
Skin: Normal washing to remove dust.

SECTION VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Normal precautions for nuisance dust should be observed.
Avoid prolonged inhalation of dust.

WASTE DISPOSAL METHOD

Dispose of in accordance with Local, State and Federal regulations.

SECTION VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

Where TLV is exceeded, use of an approved dust respirator is recommended (NIOSH).

VENTILATION

Provide as required to keep TLV below acceptable limits.

PROTECTIVE GLOVES None.
EYE PROTECTION Normal protection against foreign substances as needed--safety glasses.
OTHER PROTECTION EQUIPMENT None.

SECTION IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Normal precautions for "nuisance dust" should be provided.

OTHER PRECAUTIONS

None.

N/A — NOT APPLICABLE