SAFETY DATA SHEET - CRYSTALLINE SILICA

1. IDENTIFCATION OF SUBSTANCE/PREPARATION & COMPANY

Products: **Wet Ground – Flint (98%) Feldspars (33%) Flux Composites (40 – 60%) MAM Sand CG & FG (99%) Clay Bodies (40 – 60%)**

REACH Key Notes: **Exempt in accordance with Annex V.7**

Application of Substance: **Ceramics**

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2. HAZARDS IDENTIFICATION

Products contain crystalline silica and therefore are classified as STOT RE2 according to criteria defined in the Regulation EC 1272/2008 and harmful according to criteria defined in Directive 67/548/EEC due to the potential to generate respirable dust. This could arise when the product is allowed to dry out. Particular attention should be given to controlling spillages.

Prolonged/repeated exposure to high concentrations of respirable free crystalline silica dust may cause delayed lung injury (silicosis) The WHO International Agency for Research on Cancer (IARC) evaluation for silica states “Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)” but additionally notes “carcinogenicity in humans was not detected in all industrial circumstances studies. Carcinogenicity may be dependent on inherent characteristics of crystalline silica or on external factors affecting its biological activity or distribution of polymorphs” (IARC Monograph, Volume 68, 1997).

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalations of respirable crystalline silica dust is silicosis. “There is sufficient information to conclude that then relative risk of lung cancer is increased in persons with silicosis (and, apparently, not employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk …”(SCOEL SUM Doc 94-final, June 2003). So there is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting existing regulatory occupational exposure limits and implementing additional risk management measures where required.

Detailed reviews of the scientific evidence on the health effects of crystalline silica have been published by HSE (Health and Safety Executive UK) in the Hazard Assessment Documents EH75/4 (2002) and EH75/5 (2003). The HSE points out on its website that “Workers exposed to fine dust containing quartz are at risk of developing a chronic and possibly severely disabling lung disease known as silicosis. In addition to silicosis, there is now evidence that heavy and prolonged workplace exposure to dust containing crystalline silica can lead to an increased risk of lung cancer. The evidence suggests that an increased risk of lung cancer is likely to occur only in those workers who have developed silicosis.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Porcelain Powder – CAS No. 1332-58-7

WARNING STOT RE2

H373 - May cause damage to lungs through prolonged or repeated exposure by inhalation.

Precautionary Statements:

P260 - Do not breathe dust
P285 - In case of inadequate ventilation wear respiratory protection
P501 - Dispose of contents/containers in accordance with local regulations

4. FIRST AID MEASURES

Eyes - Rinse immediately with plenty of water. If irritation persists, seek medical advice.
Skin - Wash with water.
Ingestion - Wash out mouth, drink plenty of water. DO NOT MAKE PATIENT VOMIT.
Inhalation - Remove to fresh air and seek medical advice if necessary.

5. FIRE FIGHTING MEASURES

This material is non-combustible and does not give off any harmful gases when involved with fires and will not react with other materials or fire extinguishing media.

6. ACCIDENTAL RELEASE MEASURES

Eye protection should be worn to prevent splashes to eyes.

Spillages of slop material should be removed with copious amounts of water to factory drainage system.

Spillages of semi-dry or dry product should be removed by sweeping, preferably vacuum methods.

7. HANDLING AND STORAGE

Slop material should be agitated during storage to prevent settling. Spillage should be prevented during transfer operations and precautions taken to prevent splashing to body and eyes. When handling all materials observe good standards of industrial hygiene.

Avoid swallowing, inhaling dust and eye/skin contact through the use of personal protective equipment. Where dry material has to be handled, dust masks with normal protection factor (NPF) of 10 (EN149) should be worn.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Dry materials should be used under conditions of local exhaust ventilation to avoid inhalation of dust. Where it is not possible, an appropriate dust mask must be worn.

Other than suitable protective clothing, no special controls are needed in the case of slop or plastic materials other than cleaning any spillages before they dry out. Goggles may be used to prevent possible eye irritation and gloves if skin irritation is likely.

WORKPLACE EXPOSURE LIMIT (WEL) – EH40**:** **Total Respirable Dust: 0.1mg/m^3 (UK)**

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: As a slurry of varying colour, as, pugged or pressed plastic clay body, as a dry powder of varying colour.
pH: 5 - 9
Melting Point: 1000ºC min
Flammability: Not flammable
Oxidising Properties: Not oxidizing
Solubility: Insoluble in water

10. STABILITY AND REACTIVITY

No known hazardous reactions or decomposition products within the sphere of its intended use as ceramic material.

11. TOXICOLOGICAL INFORMATION

Mild irritant to skin and eyes

No known toxic effects on ingestion

Drying out of product will permit respirable particles of crystalline silica to become airborne with the risk of inhalation and retention in lungs. SEE SECTION 2.

12. ECOLOGICAL INFORMATION

Material is extremely inert, being resistant to decomposition by weathering, biological activity and further oxidation.

Large aquatic discharges may lead to localized adverse physical effects to aquatic organisms due to the suspension of the material in water and silting.

13. DISPOSAL INFORMATION

Material should be treated as industrial waste and the procedures laid down in the Duty of Care – Environmental Protection Act observed. Consult Local Authority if necessary.

14. TRANSPORT INFORMATION

No special precautions. International regulation on the transport of dangerous goods (IMDG, IATA, ADR) not applicable.

15. REGULATORY INFORMATION

Classification for Supply:

Slop Material	- Warning
Pugged/Press cake Clay	- Warning
Semi-dry Material	- Warning
Dry Material	- Warning

References:

EH40 - Workplace Exposure Limits 2005
Guidance Notes EH44 - Dust General Principles of Protection
HS (G)53 - Respiratory Protective Equipment
COSSH ACOP41 - Pottery Production Guidance Note EH59
REACH Regulation (EC) No 1907/2006 - Annex V 7
CLP Regulation (EC) No1272/2008

16. OTHER INFORMATION

This data sheet is provided under CLP and REACH Regulation and is not intended to constitute an assessment of work place risk associated with product(s) used as required under any other Health and Safety Regulation.

Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.

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