Yale *Environmental Health & Safety*

Silica Safety Guidelines for Clays and Plasters

Reduce exposures to crystalline silica by:

- Knowing what ingredients are in the clays and plasters you are using (the Safety Data Sheet will provide this information).
- Using plaster with the lowest percentage silica possible.
- Mixing plaster under exhaust ventilation if greater than 1% silica.

When working with clay:

- Purchase premixed, wet clay.
- Purchase clay with the lowest percentage silica - ask suppliers if there is a "low free silica" clay available.
- Ensure clay mixers are equipped with local exhaust ventilation.
- Store and mix clay in a separate room, whenever possible.
- Work in rooms where there is good ventilation.
- Finish greenware while still wet or damp with a fine sponge.
- Cover unfinished clay products when not in use.
- Clean work area before clay scraps dry out.
- Clean surfaces and floors daily with a wet sponge/mop or a HEPA vacuum only.

Remember:

- ❖ Do not sand greenware when dry.
- ❖ Do not sand greenware containing fibrous talc.
- ❖ Avoid crushing of dry scrap.
- ❖ Never clean floors by dry sweeping.
- ❖ Avoid creating airborne dust at all times.

Clays used in ceramics and pottery are composed of one or more minerals and may contain up to 40-50% silica. Some plasters may also contain silica for added texture. Crystalline silica has been classified as a human lung carcinogen. Additionally, breathing crystalline silica dust can cause silicosis, which in severe cases can be disabling, or even fatal. The respirable silica dust, which is such a fine dust that it may be invisible under normal lighting, enters the deepest part of the lungs and causes the formation of scar tissue, reducing the lungs' ability to take in oxygen. For these reasons, it is important to keep inhalation exposures to silica as low as possible.