Hebel Sculpture

What is Hebel?
Hebel products are made from a lightweight masonry called Autoclaved Aerated Concrete (AAC). This advanced technology produces extremely small, finely dispersed air pockets within the material. The result is a lightweight aerated concrete which is strong and durable, but only about a quarter the weight of conventional brick or concrete.

What is it used for?
TAFE Institutes across Queensland utilise Hebel to teach sculpture techniques. The material is used as it is light weight and easy to manipulate.

The hazard
The product as supplied is non-Hazardous, however the dust from this product is classified as Hazardous according to the Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.

When concrete products are cut, sawn, abraded or crushed, dust is created which contains crystalline silica, some of which may be respirable.

Health effects of exposure to silica dust
Initial exposure to silica dust will cause irritation of the eyes, nose and throat like most other dusts. However, if excessive amounts of silica dust are breathed into the lungs over a period of time, it can cause damage to the lung tissue. Other than some breathlessness during exercise, the disease can remain free of symptoms for 10-20 years after exposure.

The most common form of silicosis develops after long exposure to relatively low concentrations. Once the disease has begun, it will continue to progress even if the worker is removed from further exposure. There is no medical treatment for silicosis. People with silicosis are also at greater risk of developing lung cancer. In 1996 the International Agency for Research on Cancer classified crystalline silica dust as a human carcinogen (Group 1).

Controls
The following controls are recommended to address this hazard:

- **Substitution**: Where possible utilise another material that does not contain crystalline silica.
- **Engineering**: Utilise power tools with inbuilt dust extraction controls or in workspaces that have dust extraction units.
- **PPE**: Safety glass or goggles (AS/NZ1336), P1 or P2 particulate respirator used in accordance with AS/NZS 1715 and AS/NZS 1716, wear gloves complying with AS 2161.3 to prevent skin irritation & abrasion, consider the use of long sleeved shirts & long trousers if irritation occurs.

Reference material