



MATERIAL SAFETY DATA SHEET
FOR BERYLLIUM OXIDE CERAMICS

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

a) Substance	b) Company
Beryllia ceramic in massive form	CBL Ceramics Ltd
Beramic 995	Marble Hall Road
Beramic 960	Milford Haven
Beramic Z	Pembrokeshire
	SA73 2PP
	44(0)1646 697681

CAS No 1304-56-9

24 Hour Emergency:
44(0)1646 694048 Mr. Stephen Jones
44 (0)1646 686388 Mr. David Gwyther

2. Composition

Beryllium Oxide Nominal 99.5%

3. Hazards

When supplied in massive form, the ceramic is non-hazardous. If it is subsequently processed in any way that might give rise to airborne dust or fumes, then an inhalation could arise. Such processes include grinding, abrading, abrasive cutting, crushing and heat treatment above 900 degrees C in moist atmospheres.

4. First Aid Measures

Exposure to dust or fumes	There is no acute risk associated with this ceramic in massive form.
Cuts	Remove the exposed person to fresh air and obtain medical advise.
Eyes	Remove embedded material, clean thoroughly and dress the wound.
	Use normal industrial protection against foreign bodies entering the eyes, there is no special hazard to the eyes.
Ingestion	Use normal hygiene. There is no special ingestion hazard.

5. Fire Fighting

The ceramic is not flammable.

6. Accidental Release

Not applicable to massive forms.

7. Handling and Storage

No special precautions required.

8. Exposure Controls

Controls are only applicable to any process which might release airborne dust or fumes, which are subject to a **Maximum Exposure Limit** of 2 micrograms Be per cubic meter of air averaged over an 8 hour work day. Any such process requires suitable air extraction and filtration to reach the lowest practicable beryllium level below the **M.E.L.** In some cases, for instance maintenance or repair of processing equipment or ducting, personal respiratory protection equipment may be necessary.

9. Physical Properties

Solid white ceramic. Density: 2.86 grams per cubic centimeter. Melting point: 2547 degrees C.

10. Stability and Reactivity

The ceramic is stable and will not corrode, dissolve or disintegrate under normal conditions. Above 900 degrees C in moist atmospheres volatile beryllium hydroxide may be formed which will require controls.

11. Toxicological Information

Inhalation of beryllium-containing materials can lead to Chronic Beryllium Disease (T+R26*) in a small percentage of the population (up to about 4%). This disease can cause serious impaired lung function.

Based on animal data, Beryllia is classified by the EU as a Category 2 Carcinogen by the inhalation route only (R49*). Evidence for human carcinogenicity is unclear in spite of epidemiology study of thousands of beryllium workers. There is no evidence of excess cancer in modern beryllium industry. Massive forms of the ceramic pose no inhalation risk as supplied.

The EU classifies Beryllia as toxic by ingestion (R25*) and harmful as an irritant to the eyes (Xi36*) and skin (Xi38*). These hazards do not in fact apply to Beryllia and arise in the classification because certain soluble beryllium salts (fluoride, sulphate, etc.) do exhibit these hazards and were grouped together with Beryllia for the purpose of classification. Beryllia is not hazardous by ingestion or handling.

*EU Risk Phrases

12. Ecological Information

Solid beryllia ceramic presents no ecological danger.

13. Disposal

Consult CBL Ceramics Ltd about recycling possibilities. Beryllia-containing scrap must not be crushed or treated in any way that might give rise to airborne dust or fumes above the MEL without proper controls. Beryllia-containing scrap may be land-filled by approved agents on approved sites under HM Inspectorate of Pollution regulations.

There is no national standard for beryllium control in waste waters. Consult your local Authority.

14. Transport

Massive Beryllia ceramic is not hazardous for purposes of transportation, either as primary product or as scrap. EU hazard labeling is not required though the product should always be identified to avoid inappropriate treatment. Packaging should always be done in such a way as to prevent dust generation due to friction between components during transportation.

15. Regulatory Information Please refer to Sections 11 through 14.

16. Further Information

Beryllia ceramic in massive form is non-hazardous. Operations on the ceramic which might generate airborne dust or fumes require risk assessment and controls where necessary, usually local exhaust ventilation and filtration. CBL Ceramics offers full support in the use of their materials.