

Frequently Asked Questions about Beryllium Oxide Ceramic and Skin Contact FAQ 309

Can touching or handling beryllium oxide ceramic in solid or massive form cause chronic beryllium disease (CBD)?

No, you cannot contract CBD through skin contact.

Can cuts involving beryllium oxide cause CBD?

No. Cuts involving beryllium oxide ceramic are no different than cuts from other ceramic materials. There are no specific beryllium-related, adverse health effects associated with skin cuts involving beryllium oxide ceramic. However, open wounds can be a pathway for small particles to enter the skin. As a good hygienic practice, wounds should be properly cleaned and bandaged and kept clean to aid the healing process.

Does routine touching or handling of beryllium oxide ceramics in solid or massive form cause skin reactions or rash?

No, routine contact with beryllium oxide ceramic does not generally cause skin reactions or rash.

Can beryllium oxide ceramic chips or dust imbedded under the skin cause beryllium sensitization?

Possibly. Therefore, we believe it prudent to warn that particulate lodged in the skin or entering skin wounds has the potential to result in sensitization to beryllium. It is important to remove imbedded chips or dust and keep skin wounds clean and covered.

What is beryllium sensitization?

Beryllium sensitization means a response in the immune system of a specific individual who has been exposed to beryllium. There are no associated physical or clinical symptoms and no illness or disability with beryllium sensitization alone, but the response that occurs through beryllium sensitization can enable the immune system to recognize and react to beryllium. While not every beryllium-sensitized person will develop CBD, beryllium sensitization is essential for development of CBD.

See our FAQ 304 - Frequently Asked Questions about the Beryllium Blood Lymphocyte Proliferation Test (BeBLPT), for more information on sensitization testing.

What is Materion Ceramics Inc.'s position on protecting the skin of beryllium workers from exposure to beryllium?

Materion Ceramics Inc. believes it is a good work practice to protect skin from contact with solutions containing fine beryllium particulate or salts, or fine particles containing beryllium. We also believe that no special skin protection is needed when handling clean metal or large clean metal pieces or chips. "Clean" is defined as visibly clean, and not coated with residual salts, or fine particulate in solutions or lubricants containing beryllium. Good hygiene and safety practice dictates skin protection from cuts and abrasions, maintenance of skin cleanliness, cut and abrasion first-aid treatment and protection of wounds from contamination.

Examples of tasks where skin protection should be used to keep particulate off of the skin:

- Grinding, milling, lapping, polishing of beryllium oxide ceramic
- All operations in which beryllium oxide ceramic is coated with dust, fluid* or lubricant*
- Processing of fluids containing fine beryllium particulate
- Unfired beryllium oxide powder handling

*Consistent with OSHA recommended good work practice, use skin protection to prevent skin contact with coolants and lubricants during processing of beryllium oxide ceramic.

Materion Brush Inc. encourages those processing beryllium oxide ceramics in ways which generate particulate containing beryllium to utilize engineering and work practice controls to keep beryllium oxide ceramic work areas clean and to keep particulate containing beryllium out of the lungs, off the skin, off of clothing, in the work process, in the work area and on the plant site.

How can I obtain assistance?

If you have any questions regarding the above information, please contact your sales representative; our sales department at +1-216-486-4200; or the Product Safety Hotline at 1-800-862-4118 (in the U.S.) or +1-216-383-4019 (outside the U.S.). This document, as well as other product specific safety data information, can be found at www.materion.com. Additionally, information on the Beryllium Worker Protection Model and process specific safety guidance can be found in the Interactive Guide to Working Safely with Beryllium and Beryllium-containing Materials at www.berylliumsafety.com.