

Frequently Asked Questions about Occupational Exposure Values from ACGIH® FAQ 306

I understand that the ACGIH® has an occupational exposure value for beryllium. Is this true?

Yes. In 2009, the ACGIH® (American Conference of Governmental Industrial Hygienists) adopted a new occupational exposure value for beryllium. In its 2009 TLVs® and BEIs® booklet, the ACGIH® included a change in its TLV-TWA (Threshold Limit Value – 8-hour Time Weighted Average) for beryllium and beryllium compounds to 0.05 µg/m³ (micrograms per cubic meter of air) based on the “inhalable” sampling method. The ACGIH® decided not to adopt a TLV-STEL (Threshold Limit Value – Short-Term Exposure Limit).

What is the ACGIH®?

The ACGIH® is a professional society comprised mostly of government health and safety professionals. The ACGIH® is not a regulatory body or government agency and allows only limited participation of health and safety professionals working in the private sector. One of the stated objectives of the ACGIH® is to develop and issue guidelines to assist in the control of occupational exposure to chemical substances.

What are TLVs®?

ACGIH® describes Threshold Limit Values (TLVs®) as the “airborne concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse health effects”. ACGIH® advises that TLVs® are guidelines and recommendations but are not fine lines between safe and unsafe conditions.

Must I comply with ACGIH TLVs®?

No. Unlike the Permissible Exposure Limits (PEL) set for beryllium by the Occupational Safety and Health Administration (OSHA) in its new Beryllium Standard for General Industry (29 CFR 1910.1024) issued in January 2017, the ACGIH® TLVs® are not legally binding requirements. The OSHA standard includes a PEL of 0.2 µg/m³ as an 8-hour TWA and 2.0 µg/m³ as a Short-Term Exposure Limit (STEL) determined over a 15-minute sampling period. These exposure limits utilize what is commonly known as the “total” sampling method. The OSHA standard also includes ancillary requirements prompted at either the PEL or an Action Level (AL) of 0.1 µg/m³ or other specified situations. The ACGIH® advises that TLVs® “are not developed for use as legal standards and ACGIH does not advocate their use as such”. This is primarily due to the fact that the ACGIH® gives no consideration to economic and technical feasibility when establishing a TLV® as is required of OSHA when developing PELs.

What is Materion Ceramics Inc.’s position on the ACGIH® changes to the beryllium and beryllium compounds listing?

Materion Ceramics Inc. opposed adoption of these changes because the available research and scientific information does not support the adopted changes.

Materion Ceramics Inc. has established a Recommended Exposure Guideline (REG) of 0.2 $\mu\text{g}/\text{m}^3$ to be used in conjunction with the Beryllium Worker Protection Model. Information regarding the use and implementation of the Beryllium Worker Protection Model can be found at www.berylliumsafety.com.

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.