

Frequently Asked Questions about the Occupational Exposure Limit for Beryllium in France FAQ 113

Have authorities in France lowered the occupational exposure limit (OEL) for beryllium?

No. The occupational exposure limit for beryllium in France remains 2.0 µg/m³ (micrograms beryllium per cubic meter of air) as an 8-hour time weighted average (TWA).

Has it been suggested to lower the OEL for beryllium in France?

Yes. The French Agency for food, environmental and occupational health safety – ANSES (Agence Nationale de Sécurité Sanitaire de l'alimentation, de l'environnement et du travail) suggested reducing the occupational exposure limit for beryllium and compounds to 0.01 µg/m³ in a report¹ issued October 2010.

Has Materion Brush Inc. engaged French Authorities regarding the ANSES report?

Yes. Materion Brush Inc., in collaboration with other companies producing and/or importing beryllium, beryllium oxide ceramics and alloys containing beryllium in France, have contacted key French authorities including the Ministry of Ecology, Ministry of Defence, Ministry of Economy & Industry, and Ministry of Labor and ANSES to provide scientific information on an appropriate OEL along with commercial information on beryllium use in France and the societal benefits of beryllium.

Does Materion Brush Inc. have a recommendation for an occupational exposure guideline for airborne beryllium?

Yes. Materion Brush Inc. has adopted a recommended exposure guideline (REG) of 0.2 µg/m³ TWA based on recent studies^{2,3,4} and consideration of particle size^{5,6}, chemical form⁷ and process related risks⁸. Materion Brush Inc. utilizes this REG in conjunction with the Beryllium Worker Protection Model. Use of the REG of 0.2 µg/m³ in conjunction with the Beryllium Worker Protection Model has been shown to be successful in preventing chronic beryllium disease (CBD) and beryllium sensitization in new workers⁹. Information regarding the use and implementation of the Beryllium Worker Protection Model can be found at www.berylliumssafety.com.

What has happened to the suggestions made by ANSES?

We were recently informed that the suggestions made by ANSES will not be adopted by the French Ministry of Labour. The Ministry has also decided to postpone revising the OEL for beryllium until an OEL is developed that will apply across the European Union.

How can I obtain assistance?

If you have any questions regarding the above information, please contact your sales representative or call the Product Safety Hotline at (800) 862-4118. Get product specific material safety data information at www.materion.com.

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- ¹ Valeurs limites d'exposition en milieu professionnel, Le beryllium et ses composés, Avis de l'Anses Rapport d'expertise collective, Octobre 2010.
- ² Johnson J., et al. Beryllium Exposure Control Program at the Cardiff Atomic Weapons Establishment in the United Kingdom. *Appl Occup Environ Hyg* 16(5): 619-630 (2001).
- ³ Schuler, C., et al. Process-Related Risk of Beryllium Sensitization and Disease in a Copper-Beryllium Alloy Facility. *Am J Ind Med* 47:195–205 (2005).
- ⁴ Madl A.K., et al. Exposure-Response Analysis for Beryllium Sensitization and Chronic Beryllium Disease Among Workers in a Beryllium Metal Machining Plant. *JOEH* 4:6 448-466 (2007)
- ⁵ Kent M., Robins T., Madl A. Is Total Mass or Mass of Alveolar-Deposited Airborne Particles of Beryllium a Better Predictor of the Prevalence of Disease? A Preliminary Study of a Beryllium Processing Facility. *Appl Occup Environ Hyg* 16(5): 539-558 (2001).
- ⁶ McCawley M. et al. Ultrafine Beryllium Number Concentration as a Possible Metric for Chronic Beryllium Disease Risk. *Appl Occup Environ Hyg* 16(5): 631-638 (2001).
- ⁷ Deubner D., et al. Beryllium Sensitization, Chronic Beryllium Disease, and Exposures at a Beryllium Mining and Extraction Facility. *Appl Occup Environ Hyg* 16(5): 579-592 (2001).
- ⁸ Kreiss K., Mroz M., Zhen B., Wiedemann H., Barna B. Risks of beryllium disease related to work processes at a metal, alloy, and oxide production plant. *Occ. and Env. Medicine* 54: 605-612 (1997).
- ⁹ Cummings K.J., et al. Enhanced preventive programme at a beryllium oxide ceramics facility reduces beryllium sensitization among new workers. *Occup Environ Med* 64:134-140 (2007)