



# ALLIED MINERAL PRODUCTS, INC.

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Dear: Foundry Superintendent / Manager  
Health & Safety Manager

For more than 40 years, Allied Mineral Products, Inc. (Allied) has been notifying, informing, and warning its customers of the potential hazards associated with the use and disposal of crystalline silica based refractory materials. We have sent these notifications periodically, usually every 2-3 years. We ask that you **pay particular attention to this mailing and its enclosure.**

Allied remains committed to assisting you in communicating the potential hazards of working with respirable crystalline silica to your employees, and anyone else who may come in contact with silica-based products in your foundry operations. Some of the refractory products that we manufacture, including our MINRO-SIL<sup>®</sup> and related product lines, represent a minor portion of the crystalline silica utilized in foundry operations. More immediate hazards are associated with the silica-based products used on a daily basis. These include molding sand and shot blasting, and the airborne residue that comes from grinding room operations. This exposure of your employees to respirable silica dust occurs every day in your operations. The use of Allied's silica-based refractories is only a periodic exposure occurring during installation and removal of these materials in your furnaces. Nevertheless, it is important to educate and protect your employees with regard to any potential exposure to silica dust, be it regular or occasional.

The refractory products utilized in your foundry can contain various percentages of crystalline silica, the majority of which are not respirable. Nonetheless, it is essential that the hazards be communicated to your workforce. Also, that proper personal protection be provided and instruction given on the safe handling of these materials. A conservative safety and health program will minimize the potential for exposure during refractory installation, tearout and disposal. This program will also raise the awareness level of all of your personnel with regard to the risk of exposure to respirable crystalline silica everywhere in your operation.

As you know, overexposure to respirable crystalline silica can cause an occupational lung disease known as Silicosis. Silica containing products are subject to the Occupational Safety and Health Administration (OSHA) hazard communication standard. This standard outlines both the supplier's responsibility and the employer's responsibility to communicate hazards related to the use of these products in the workplace. In light of this OSHA requirement, a brief overview of respirable crystalline silica follows.

As of June 23, 2018, the new permissible exposure limit (PEL) for crystalline silica is **0.05 mg/m<sup>3</sup>**. This new PEL replaces the old PEL of **0.1 mg/m<sup>3</sup>**. The new rule substantially affects any operation where there is crystalline silica exposure. Information on the new rule can be found at [www.osha.gov/silica/](http://www.osha.gov/silica/).

The American Conference of Governmental Industrial Hygienists (ACGIH) adopted a threshold limit value (TLV) of 0.025 mg/m<sup>3</sup> for crystalline silica, quartz. This affects all Allied finished

products that contain crystalline silica and, of course, all other silica materials used in your foundry on a daily basis. The ACGIH also lists crystalline quartz, as a suspected human carcinogen. In addition, the International Agency for Research on Cancer (IARC) has classified crystalline silica inhaled in the form of quartz or cristobalite from occupational sources as carcinogenic to humans (Group 1). The National Toxicology Program (NTP) has listed respirable crystalline silica as “known to be a human carcinogen” in the Ninth Report on Carcinogens, and the National Institute for Occupational Safety and Health (NIOSH) has listed respirable crystalline silica as a potential occupational carcinogen.

Two publications issued by the U. S. Department of Labor and the National Institute for Occupational Safety and Health (NIOSH), outlining the necessary procedures for safe use of silica-bearing materials can be accessed at:

"A Guide to Working Safely With Silica" <http://www.cdc.gov/niosh/pdfs/silicax.pdf>

“Health Effects of Occupational Exposure to Respirable Crystalline Silica”  
<http://www.cdc.gov/niosh/docs/2002-129/>

The National Industrial Sand Association offers a “Silicosis Prevention Program” and their “Occupational Health Program for Exposure to Crystalline Silica in the Industrial Sand Industry” at [www.sand.org](http://www.sand.org).

The above web links and publications, coupled with this informative letter, address the need to communicate hazards to the workforce. Additionally, we have enclosed a Safety Data Sheet for silica based products from Allied. We urge you to disseminate this information completely among your employees. Furthermore, if you are not the end user of our products, but re-sell these items to another party, it is your responsibility, per the hazard communications regulations, to inform your customers of the hazards associated with these products.

In closing, I urge you to communicate this information to your workforce and include the aforementioned exposure limits in your industrial hygiene program. Allied accepts no responsibility and disclaims all liability for any harmful health effects that may be caused by exposure to crystalline silica contained in any of its products. Sale of our products is conditional upon your compliance with all applicable Federal, State, Provincial, and Local environmental or safety laws and regulations.

Cordially,

ALLIED MINERAL PRODUCTS, INC.



Paul D. Jamieson  
President

PDJ/sb  
Enclosure