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| **Respirable Crystalline Silica (RCS) - Frequently Asked Questions** |
| ***#*** | ***Question*** | ***Answer*** |
| *1* | **What is RCS?** | Crystalline silica is a naturally occurring substance typically found in stone (particularly sandstone, shale, granite, and slate), in sand and in products such as bricks, tiles, concrete and cement. Respirable Crystalline Silica (RCS) occurs when these materials are worked on to release a very fine, inhalable dust.  |
| *2* | **How can a person be exposed to RCS?** | Where concrete, stone or sand-based materials are altered (during formation, cutting, drilling, polishing or demolition) and made airborne, there is a potential for exposure to crystalline silica dust.  |
| *3* | **What are the routes of entry for RCS into the body?** | Inhalation is the primary route of exposure to crystalline silica dust. When any dust is inhaled, its point of deposition within the respiratory system is very much dependent upon the range of particle sizes present in the dust. The respirable fraction (smallest particle size) of crystalline silica dust can penetrate deep into the lungs.  |
| *4* | **What are the health impacts of exposure to RCS?** | Silica dust is only harmful when it is inhaled deep into the lungs. Inhalation of fine dust containing crystalline silica can cause silicosis of the lungs, which in severe cases can be disabling, or even fatal. |
| *5* | **How can a worker prevent exposure to RCS?** | The respirable fraction of the dust is invisibly fine. Elimination and substitution of RCS containing materials, dust extraction and/or dust suppression are the primary measures advised to control potential exposure. |
| *6* | **What Respiratory Protective Equipment (RPE) provides adequate protection?** | Respiratory Protective Equipment (RPE) should either be a FFP3 disposable respirator or a P3 particulate filter fitted to a half or full-face mask to provide effective protection and be CE marked. ***Note 1:* Prior to knowingly releasing construction dust, it is best to utilise the hierarchy of controls and to selective collective controls to protect all personnel, not only those wearing RPE. Refer to question 5 above..*Note 2:* RPE is selected as a control measure when engineering and work practice controls cannot maintain exposures at or below the OELV; refer to the Hierarchy of Controls / the General Principles of Prevention for appropriate control measures.**  |
| *7* | **What is the Occupational Exposure Limit Value (OELV) for persons to RCS?** | The OELV for Respirable Crystalline Silica (RCS) is 0.1mg/m3 averaged over 8 hours, as detailed in the 2018 HSA’ Code of Practice for the Chemical Agents Regulations. |
| *8* | **Is RCS a carcinogen?** | Yes; Directive (EU) 2017/2398 of the European Parliament and of the Council of 12 December 2017 amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work found that "*there is sufficient evidence of the carcinogenicity of respirable crystalline silica dust*". |
| *9* | **Do workers require training to utilise RPE?** | Yes, face-fit testing and familiarisation training are advisable to ensure competence of the workers in utilising and maintaining RPE. |
| *10* | **Any other routes for exposure to RCS other than airborne dust?** | Yes, RCS may accumulate on a worker's clothes or on surfaces and be made airborne following disturbance. |
| *11* | **Can RCS be designed out?** | Yes, see response to question 5 above. |