

---



---

**Respirable coal mine dust: Number of samples, geometric mean exposures, and percent exceeding designated occupational exposure limits by industry, MSHA inspector and mine operator and OSHA samples, 1995–2003**

| <b>CIC</b> | <b>Industry</b>       | <b>Number of Samples</b> | <b>GM (mg/m<sup>3</sup>)</b> | <b>% &gt; PEL</b> | <b>% &gt; REL</b> |
|------------|-----------------------|--------------------------|------------------------------|-------------------|-------------------|
| 041        | Coal mining           | 657,419                  | 0.458                        | 6.5               | 24.6              |
|            | All other industries* | 28                       | 0.063                        | 0.0               | 4.2               |
|            | <b>TOTAL</b>          | <b>657,447</b>           | <b>0.458</b>                 | <b>6.5</b>        | <b>24.6</b>       |

CIC - Census Industry Code    PEL - permissible exposure limit    REL - recommended exposure limit    GM - geometric mean  
 mg/m<sup>3</sup> - milligrams per cubic meter    MRE - Mining Research Establishment    MSHA - Mine Safety and Health Administration  
 OSHA - Occupational Safety and Health Administration

\* includes industries with no samples exceeding the REL or industries with less than 10 samples.

NOTE: In coal mining, for respirable dust containing less than or equal to 5% quartz, the MSHA PEL is 2 mg/m<sup>3</sup> MRE; for respirable dust containing greater than 5% quartz, the MSHA PEL is [(10 mg/m<sup>3</sup> MRE) / (% quartz)]. The NIOSH REL of 1 mg/m<sup>3</sup> MRE for respirable coal mine dust was adopted in September of 1995. Geometric means are reported in MRE equivalent. All samples are compared to the MSHA PEL of 2 mg/m<sup>3</sup> MRE for respirable coal mine dust containing less than or equal to 5% quartz, regardless of actual quartz content. See appendices for source description, methods, and industry codes.

SOURCE: MSHA coal mine inspector and mine operator dust data. OSHA Integrated Management Information System.