Overview

⇒⇒⇒**FIND OUT IF YOUR SHOP IS USING SILICA-CONTAINING ABRASIVE**

⇒ Read the Material Safety Data Sheets (MSDSs) for the abrasive or perform air sampling.

⇒⇒⇒**IF YOUR SHOP USES SILICA ABRASIVES, YOU SHOULD:**

⇒ **Determine if substituting a non-silica abrasive is feasible**.
See Chapter 1.

⇒ **Find out if you and your company have a possible silicosis problem.**
This can be done by air sampling as described in Chapter 4.

⇒ **Set up a health and safety program to meet your needs.**
Most abrasive blasting shops must also take some other basic steps. The common elements of a health and safety program are discussed in Chapter 5 – Cutting Airborne Silica.

⇒⇒⇒**WHY IS A HEALTH AND SAFETY PROGRAM IMPORTANT?**

Silica and silicosis threaten the health of abrasive blasters, and potentially, their families. The number one abrasive media used in the United States is silica. Workers at many companies have so much exposure to crystalline silica that they are slowly killing themselves. Owners of small shops who blast also face the same risks.

Silica and silicosis also threaten the health of your company. The overall cost of silica problems can be staggering: medical costs, workers' compensation cases, lost workdays, and poor employee morale. If your company has serious MIOSHA violations, you could be cited and fined.

⇒⇒⇒**WHAT ARE THE LEGAL REQUIREMENTS?**

OSHA (the Occupational Health and Safety Administration) and MIOSHA have many regulations for protecting workers in silica-using companies. OSHA and MIOSHA adopted these rules in 1973 with additional requirements implemented over several years. The MIOSHA regulations mentioned throughout this manual are included in the Appendix and Standards section.

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⇒⇒⇒**SILICA SUBSTITUTES.**

The amount of silica dusts in the air can be greatly reduced by substituting silica-free abrasives.
See Chapter 1.

⇒⇒⇒**HEALTH HAZARDS OF ABRASIVE BLASTING.**

Silicosis is not the only health hazard associated with abrasive blasting.
See Chapter 2.

⇒⇒⇒**GETTING ORGANIZED.**

How do I get started in developing a health and safety program?
See Chapter 3.

⇒⇒⇒**AIR SAMPLING.**

Air sampling should be performed to find out whether your company has a silica exposure problem.
See Chapter 4.

⇒⇒⇒**CUTTING AIRBORNE SILICA.**

The best method to cut and control airborne crystalline silica is to SUBSTITUTE NON-SILICA ABRASIVES. Other control methods, such as engineering controls, safer work and personal hygiene practices should be developed. Health and Safety programs are discussed as well as a strategy for substituting non-silica abrasives.
See Chapter 5.

⇒⇒⇒**RESPIRATORY PROTECTION AND PERSONAL PROTECTIVE EQUIPMENT.**

We highly recommend that you wear a NIOSH (the National Institute for Occupational Safety and Health) approved Type CE Abrasive-Blasting Supplied-Air respirator while you perform abrasive blasting operations. It is also recommended that you wear a Type CE respirator during cleanup operations. You should wear an approved respirator AT ALL TIMES when working in or near the blast site.
See Chapter 6.

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⇒⇒⇒**SAFETY TRAINING.**

Your efforts to create a safe and healthy workplace may be wasted if you and the shop employees don't understand the importance of working safely.
See Chapter 7.

⇒⇒⇒**CLEANING UP.**

One of the main ways you are exposed to crystalline silica is during cleanup operations. Cleanup operations include YOU: sink, soap and water; where you eat and take your breaks; and how you maintain your protective clothing. Cleanup operations include your SHOP: cleanup methods, rules concerning locations where eating, drinking, smoking, etc. are permitted; and properly disposing of waste materials.
See Chapter 8.

⇒⇒⇒**MEDICAL MONITORING.**

If you are exposed to crystalline silica dust, you should have routine medical monitoring. Monitoring should include a baseline medical and occupational history for each new employee. The baseline should include a complete physical, chest x-ray and a pulmonary function test. If you or any employee shows signs of overexposure, scarring of the lungs, or nodules forming in the lungs, reassignment to a silica-free area should occur. Other health condition recording and reporting requirements are discussed.
See Chapter 9.

⇒⇒⇒**KEEPING YOUR FAMILY SAFE**

This manual is mainly about protecting you against silicosis and crystalline silica exposure. It's also important to protect your family, neighbors, and your community.
See Chapter 10.

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Notes