

■ Abrasive Blasting

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Abrasive blasting

Abrasive blasting applies to all operations where an abrasive is forcibly applied to a surface by pneumatic or hydraulic pressure, or by centrifugal force. An abrasive is a solid substance used in an abrasive blasting operation. Sandblasting is a type of abrasive blasting.

Some tasks performed with abrasive blasting include cleaning sand and irregularities from foundry castings; cleaning and removing paint from ship hulls, stone buildings, metal bridges, and other metal surfaces; and finishing tombstones.

Abrasives and the surface coatings on the materials blasted are shattered and pulverized during blasting operations; the dust formed will contain particles of respirable size. The composition and toxicity of the dust from these sources must be considered in making an evaluation of the potential health hazards. The concentration of respirable dust or fume in the breathing zone must be kept below specified levels.

Hazards

The hazards involved in abrasive blasting include the material that is being removed and the surface from which the material is being removed. Lead is an example of a hazardous material being removed, while exposure to silica comes from using sand and other silica-producing materials in the blasting process. Both of these materials involve inhalation hazards.

Silica has traditionally been used as a material in the abrasive blasting process. However, NIOSH recommends against the use of silica sand (or other substances containing more than 1 percent free silica) as abrasive blasting material.

Sometimes the dust that is formed from abrasive blasting can be flammable or explosive. This can involve obvious hazards of fire and explosion. Along with these risks are those of flying debris to the eyes, face, and any other exposed skin.

OSHA regulations cover the hazards involved with abrasive blasting under [1910.94\(a\)](#).