



OSHA Lead Regulation Summary

The Federal Occupational Safety and Health Administration (OSHA), has enacted a lead standard, which was adopted by the Cal/OSHA as 8 CCR 1532.1. The purpose of both standards is to protect construction workers from exposure to lead. OSHA is primarily concerned with activities that disturb paints with any detectable amounts of lead. Lead was used in most paints until the mid 1950's and was banned in amounts in excess of 0.06% by weight in 1978 for most non-industrial paints by the Consumer Product Safety Commission (CPSC).

The Cal/OSHA standard requires contractors and employers to notify the State of California Division of Occupational Safety and Health (DOSH) prior to disturbing greater than 100 square feet or 100 linear feet of material containing lead greater than 0.5%, 5,000 parts per million (weight by weight), or 1.0 mg/cm². The Cal/OSHA standard also requires contractors and employers who perform paint removal activities to monitor their employees to determine whether they are being exposed in excess of the action level of 30 micrograms per cubic meter of air (µg/m³) over an eight-hour time weighted average (TWA) or the "Permissible Exposure Limit" (PEL) of 50 µg/m³ TWA. Monitoring is performed by personal air sampling.

Even when concentrations are below the action level, an employer must provide employees with High Efficiency Particulate Air (HEPA) filtered vacuums, wetting agents and hand-washing facilities. If the exposure exceeds the action level or the PEL, other procedures such as containing the area, local exhaust ventilation, respiratory and worker protection, worker training, decontamination facilities and medical monitoring are required.

OSHA has identified several work practices that pose varying levels of lead exposure to laborers disturbing lead-containing paint. Estimated exposure levels of lead are founded on the activity itself, rather than the concentrations of lead present in paint. Therefore, as an example, paint that contains 0.5% versus 15% of lead by weight or 0.8 mg/cm² versus 3.5 mg/cm² of lead in paint could pose the same exposure levels to workers depending on the activities that cause the disturbance and the administrative and engineering controls that are followed.

The following is a summary of work activities that disturb paint, the expected exposure and the respiratory protection requirements that result as outlined in the OSHA standards:

Activities	Potential Exposure	Minimum Respiratory Protection
Class I activities include: Manual demolition, manual scraping, manual sanding, heat gun applications, general cleanup, power tool cleaning with dust collection systems and spray painting activities	50 µg/m ³ to 500 µg/m ³	Half mask air purifying respirator equipped with HEPA filters having a protection factor of 10
Class II activities include: Using lead-containing mortars, lead burning, lead riveting, rivet busting, power tool cleaning without dust collection systems, cleanup of dry expendable abrasives and abrasive blasting	500 µg/m ³ to 2,500 µg/m ³	Full face powered air purifying respirators equipped with HEPA filters having a protection factor of 100
Class III activities include: Abrasive blasting, welding, cutting and torch burning on steel structures	Greater than 2,500 µg/m ³	Full face supplied air respirator operated in pressure demand mode or other positive pressure mode (type "C")