Fact Sheet

California Environmental Protection Agency
Air Resources Board

Chrome Plating

Why is the Air Resources Board (ARB) concerned about emissions from chrome plating?

Chrome plating is an industrial process in which a bright metallic chrome layer is deposited on plastic or metal objects such as faucets, automotive wheels, tools, and engine parts. The electrical charge during the chromium plating process causes the hexavalent chromium to be emitted from the plating bath as an aerosol that, once emitted from the facility, can be inhaled and trapped inside the lungs. ARB is concerned about these emissions because hexavalent chromium is a very toxic compound and breathing air containing hexavalent chromium for long periods of time may increase the risk of getting cancer. The emissions are of particular concern when chrome plating businesses are located near residential neighborhoods and schools.

What has ARB done to date to reduce the public's exposure to hexavalent chromium from chrome plating businesses?

In 1988 the ARB adopted an Airborne Toxic Control Measure (ATCM) to reduce the public's exposure to hexavalent chromium emissions resulting from chrome plating. The ATCM required chrome plating businesses to reduce the amount of hexavalent chromium emitted during the plating process. This ATCM has already resulted in reducing overall hexavalent chromium emissions from these businesses by 97 percent. The largest chrome plating businesses were required to reduce emissions by over 99 percent.

Can ARB do more to protect the public from exposure to hexavalent chromium emissions from plating facilities?

Because hexavalent chromium is very toxic, the ARB is evaluating the feasibility of further reducing its emissions. ARB is examining technologies that minimize the amount of hexavalent chromium getting into the air we breathe. This may be achievable by using multiple scrubbers or filters to capture the particles before they leave a building. ARB is also investigating innovative pollution prevention measures that may eliminate emissions of hexavalent chromium.

The ARB has already provided chrome plating businesses with information about ways that they can reduce hexavalent chromium emissions. As ARB works to find ways to further reduce hexavalent chromium emissions, we will continue to work with the chrome plating industry to provide information on safer alternatives and other measures they can use to decrease the amount of hexavalent chromium emitted from their businesses.

For More Information

Visit our web site at http://www.arb.ca.gov/toxics/toxics.htm, for more information on identified toxic substances. For information on hexavalent chromium control measures, visit http://www.arb.ca.gov/toxics/atcm/chroatcm.htm. You may also contact the ARB's Public Information Office at (916) 322-2990. You may obtain this document in alternative format by contacting ARB's ADA Coordinator at (916) 323-7053 (Voice); 7-1-1 (TTY / TDD / Speech-to-Speech); or California Relay Service (CRS): (800) 735-2922 (Voice).

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our web site: www.arb.ca.gov.

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