



Wheel Weights

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Responsible Purchasing Considerations

- Toxic Chemical Reduction
- Water Quality

Benefits of Purchasing

- Reduces public exposure to toxins in the environment.
- Contributes to improved water quality for human and aquatic life.

How To Buy

Steel wheel weights are available on Washington State Contract [06302](#).

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★ GOAL: To replace lead wheel weights with steel wheel weights on all state vehicles.★

Overview

Wheel weights are typically fastened to wheel rims to help ensure a smooth ride and proper tire wear.

Because of its density, low cost, and malleability, lead has been used in wheel weights worldwide since the 1930s to balance vehicle tires. A typical car or light truck may contain more than a quarter pound of lead in wheel weights.

An estimated 65,000 tons of lead wheel weights are in use nationally. An estimated 28,000 tons of lead are used nationally to manufacture new wheel weights each year. Most of these wheel weights are not collected at the end of a vehicle's life.

On average, five percent of wheel weights fall off vehicles. If our state trends mirror national trends, vehicles release 80,000 pounds of lead each year in Washington.

Lead wheel weights that fall off vehicles may be abraded into fine dust particles. These particles may end up in surface and groundwater supplies. This in turn can jeopardize the quality of water for human consumption and aquatic life. High levels of lead are typically found along urban roadways and in run-off from parking lots.

Fortunately steel wheel weights are a good alternative to lead.

Standards

There are no standards for wheel weights.



*Lead wheel weights
Photo Courtesy of The Ecology Center*

Success Stories: Minnesota, Ann Arbor, Michigan, the European Union, Maine, and the Washington State Department of Ecology Lead the Way

In 2004 the state of Minnesota and the city of Ann Arbor, Michigan have announced programs to phase out lead wheel weights on their fleet vehicles.

The European Union banned the use of lead wheel weights in July 2005.

In 2006 the governor of the state of Maine issued [Executive Order 12](#)

[Fiscal Year 06/07 Promoting Safer Chemicals in Consumer Products and Services](#) directing the state to change its fleet to lead-free wheel weights.

The Washington State Department of Ecology plans to refit its entire fleet with steel wheel weights by the end of 2008.

Environmentally Preferable Purchasing Bulletin — Wheel Weights

Washington State Department of Ecology

Environmentally Preferable Purchasing

The Department of Ecology offers tools and resources to make environmentally preferable purchasing easier.

Find out about environmentally preferable products, standards and certifications, law and directives, and more at our website:

www.ecy.wa.gov/beyondwaste/epp.html

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Please email with your questions or suggestions.

Resources

Steel Wheel Weight Providers

BADA

Hennessy Industries, Inc.
Tim Presley: Vice President
Operations 800-688-6359

Perfect Equipment, Inc.

Mike Pursley: Aftermarket Sales
Manager 800-251-1566

International Marketing, Inc.

David Calzada: Regional Sales
Manager 800-233-7086

On-line resources

Lead Free Wheels, The Ecology Center

www.leadfreewheels.org

Clean Car Campaign: Lead in Vehicles

www.cleancarcampaign.org/lead.shtml

Product Performance

Many alternatives to lead wheel weights have been considered. Some alternatives include steel, plastic, zinc, or zinc alloy called ZAMA which is composed of zinc, aluminum, and copper.

Zinc, zinc alloys, and copper are toxic to fish, and are not an environmentally preferred product.

Plastic wheel weights are a concern because the plastic is abraded by tires on the road and breaks down into unsafe byproducts. The plastic sometimes melts under high temperatures causing the weights to fall off.

All wheel weights perform similarly and improve tire life when applied correctly.

Coated steel wheel weights are the most environmentally preferred alternative at this time.



Photo of steel wheel weights courtesy of International Marketing, Inc.

End of Life

Lead has adverse effects on survival, growth, reproduction, development, behavior, learning and metabolism in every species that has been studied.

Lead is extremely toxic in very low doses to individuals of all ages and causes death at higher doses. It is particularly toxic to the brain and central nervous system, but lead also affects blood cells, the digestive system, cardiovascular system, and kidneys.

It is especially harmful to fetuses and young children. Lead is also harmful to adults, although the doses necessary to cause harm are generally higher than those for children.

In adults, it causes infertility, high blood pressure, and headaches. It lowers the IQ and causes behavior, learning, and hearing problems.

Replacing lead wheel weights with nontoxic wheel weights will significantly reduce toxicity issues related to lead wheel weights at the end-of-life.

Laws and Directives

Executive Order 02-03: Sustainable Practices by State Agencies	This EO directs state agencies to modify their buying practices with goals to minimize energy use, shift to non-toxic materials, and expand markets for environmentally preferable products.
Executive Order 04-01: Reducing PBTs	This EO directs the state phase out the purchase of goods with persistent bioaccumulative toxic (PBT) materials.