



Recycled Antifreeze

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For government purchasers

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Benefits of Purchasing

- Cost effective
- Supports antifreeze recycling system
- Reduces public exposure to toxics in the environment
- Reduces harm to aquatic wildlife
- Conserves resources

An easy choice for fleets to save money and reduce environmental impacts is to purchase recycled antifreeze or specify it in fleet contracts.

Most antifreeze is made of ethylene glycol or propylene glycol, both of which have toxic characteristics, along with a variety of corrosion inhibitors. During use, antifreeze can become contaminated with lead and other toxic components.

When antifreeze gets into the environment, it is toxic to humans and animals, can contaminate soils, and seriously affect water quality.

Ethylene glycol-based antifreeze is easily recyclable in Washington State. Antifreeze can be recycled an unlimited number of times, so it is one way for agencies to meet the recycled content goals of [RCW 43.19A](#) Recycled Product Procurement.

By purchasing high quality recycled ethylene glycol antifreeze, state and local governments are supporting a product that has many positive environmental benefits:

- Supports the recycling system that keeps toxics out of the environment.
- Conserves base stock which comes from petroleum products.

Recycled antifreeze performs as effectively as virgin antifreeze and is often less expensive.

Extended Life Antifreeze

Another way to lessen the impact of antifreeze purchases is to buy an extended life product, which can last the life of the vehicle. Most auto manufacturers use extended life antifreeze in new model vehicles. Extended life antifreeze is available as a recycled product.

While extended life antifreeze is slightly more expensive, vehicles will require fewer or no antifreeze changes if original equipment manufacturers' (OEM) guidelines are followed. Fleets will also have reduced costs for hazardous waste handling, storage and disposal.

Specifications

Fleet managers can specify antifreeze that has a high level of recycled content. Some automotive centers and recyclers in Washington State offer 100 percent recycled content ethylene glycol antifreeze.

State agencies in California are required to allocate at least 50 percent of antifreeze purchases to products that contain at least 70 percent recycled content.

King County recommends recycled antifreeze that contains at least 50 percent recycled content. See King County [Antifreeze](#) for Bid and Contract Specifications examples.

Make sure that suppliers offer rigorous quality control programs so that your antifreeze meets recommended guidelines for protecting fleet engines.

How to Buy

Antifreeze is not offered on state contract. Contact your local automotive supplier or specialty antifreeze recycler.

Success Story – King County

King County agencies like Metro Transit, Motor Pool, and the Solid Waste Division purchased 22,487 gallons of recycled antifreeze in 2010. The county saved over \$17,000 by purchasing recycled antifreeze instead of virgin product. See the [Toward a Sustainable, Prosperous King County - 2010 Annual Report](#) to learn more.

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:

<http://www.ecy.wa.gov/programs/swfa/epp/>

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Resources

City of Portland [Antifreeze - Recycled & Extended-Life](#)

Department of Ecology [Antifreeze](#)

US EPA Comprehensive Procurement Guidelines [Engine Coolants](#)

New Hampshire [Waste Antifreeze: Management Requirements for Handlers and Transporters](#)

Thurston County [Antifreeze](#)

Performance Standards

The American Society of Testing and Materials (ASTM) establishes performance requirements for recycled and virgin antifreeze. These standards cover performance characteristics such as corrosion protection, purity and heat transfer. Recycled content antifreeze that meets or exceeds ASTM D-3306 for automotive applications and D-6210 for heavy duty engines is preferred.

Recycled antifreeze can be used in all light and heavy duty vehicles if original equipment manufacturer (OEM) guidelines and recommendations are followed.

The U.S. Environmental Protection Agency (EPA) reports that recycled antifreeze may be purer than virgin antifreeze. The recycling process reduces chloride content. Chloride reduces corrosion inhibitor performance. See [Engine coolants](#).



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End of Life

Antifreeze should always be recycled. If it is not recycled, it must be handled as dangerous waste, which increases management and disposal costs.

Several options for agencies to recycle antifreeze exist:

- Hire a company that recycles offsite.
- Hire a mobile recycling service.
- Purchase on-site recycling equipment and recycle at your facility.

Ecology’s publication [Focus on Spent Antifreeze](#) provides greater detail on recycling options, dangerous waste designation and spent antifreeze filters.

Proper waste management techniques are key to recycling success. Antifreeze can get so contaminated that it can’t be recycled.

In British Columbia, antifreeze and antifreeze containers came under the [British Columbia Used Oil Management Association](#) product stewardship program as of July 2011. Industry is funding take-back centers across the province and providing quality control recycling.

Laws and Directives

<p>Executive Order 02-03 Sustainable Practices by State Agencies</p>	<p>Requires sustainable practices by state agencies.</p>
<p>Chapter 43.19A Recycled Content Products</p>	<p>Requires state agencies to make purchases that are consistent with U.S. EPA recycled content standards.</p>
<p>Chapter 70.105D Dangerous waste regulations - Special requirements for recycling spent antifreeze</p>	<p>Requires management and recycling of used antifreeze. Antifreeze may not be discharged to the ground, storm drains, or to surface waters.</p>