



Photo by E. Riggs.

Runoff from freshly applied coal tar sealcoat caused death of fish and aquatic invertebrates weeks to months after application.

What to Avoid

Look at product label or request the Material Safety Data Sheet and avoid products labeled with any of these terms*:

CAS#65996-92-1, CAS#65996-93-2, CAS#65996-89-6, CAS#8007-45-2, Coal Tar, Coal Tar Pitch, Coal Tar Distillates, RT-12, CAS#64742-90-1, CAS#69013-21-4, Steam-cracked Petroleum Residues, Steam-cracked Asphalt, Pyrolysis oil, Heavy fuel oil (HFO)

*full list at hrwc.org/coaltar

Banning Toxic Sealcoats

Already, Minnesota, Washington, and the District of Columbia have statewide bans. Dozens of municipalities throughout the US have also banned the use of coal tar sealcoat. In 2015, Van Buren Township became the first to pass a comprehensive PAH ban in Michigan. Ask your legislators to do the same.

Hazardous levels of PAH's have been found in pond sediments in the Huron River watershed

Learn More

HRWC's coal tar webpage

hrwc.org/coaltar

United States Geological Survey

tx.usgs.gov/sealcoat.html

Coal Tar Free America

coaltarfreeamerica.blogspot.com

Select References

International Agency for Research on Cancer, 1987. Coal-tar Pitches. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Supplement 7, pp 174-175.

Mahler et al. 2015. Acute Toxicity of Runoff from Sealcoated Pavement to *Ceriodaphnia dubia* and *Pimephales promelas*. Environmental Science and Technology.

Mahler et al. 2012. Coal-Tar-Based Pavement Sealcoat and PAHs: Implications for the Environment, Human Health, and Stormwater Management. Environmental Science and Technology 46, 3039-3045

Van Metre et al, 2010. Contributions of PAHs from Coal Tar Pavement Sealcoat and Other Sources to 40 U.S. Lakes, Science of the Total Environment. Vol. 409, pg.334-344.



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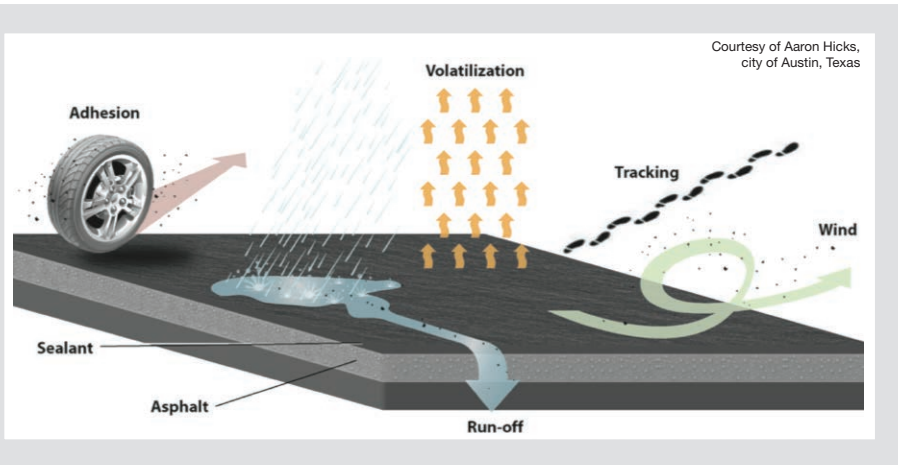


Risks of Coal Tar-Based Sealcoat

How to avoid common pavement sealants that pose threats to human health and the environment

What is Coal Tar Sealcoat?

Coal tar-based sealcoat is applied widely on driveways, parking lots, and even play-grounds as a maintenance practice. Coal tar sealcoats are hazardous. They are high in polycyclic aromatic hydrocarbons, or PAHs, many of which have been identified as toxic, mutagenic, teratogenic (cause birth defects) and/or carcinogenic (cause cancer). While there are many sources of PAHs, coal tar sealcoat contains significantly higher concentrations (~70,000 mg/kg) than other common sources such as gas emissions (370 mg/kg) and road dust (24 mg/kg).



Coal tar sealcoat can enter the environment when it is applied and as it wears down over time. Fumes and particles travel via air, water, and even on shoes and end up in our homes, rivers, and soils.

Available Alternatives

There are several alternatives that have significantly lower, or no, PAH content. Asphalt-based sealcoat has 1/1000th the PAH content of coal tar, and is readily available at similar cost. There are also safer acrylic and latex based options.

You can also choose not to seal your asphalt surfaces. University of Michigan found it more cost effective to repave occasionally than to sealcoat regularly. Be aware of alternative products that are still high in PAH content.

Human Health Risks of Coal Tar Sealcoat

For someone who spends their lifetime living adjacent to coal tar seal-coated pavement, the average excess cancer risk is estimated to be 38 times higher than those who don't. Much of the increased risk occurs during early childhood. Children play on and near these surfaces and

are, therefore, more likely to inhale or ingest PAHs associated with coal tar sealcoat. Particles also make it into homes on shoes and pets.

Effects of Coal Tar Sealcoat on Rivers and Lakes

In rivers and lakes, PAHs are found primarily in the sediments. Several recent studies have found that runoff from coal-tar-treated surfaces causes death, developmental issues,

and other adverse effects in fish and other aquatic organisms long after application.

Studies show 50-75% of all PAHs found in sediments within the Great Lakes region come from coal tar sealcoat.



An alternative sealcoat: If sealcoating cannot be avoided, asphalt-based sealcoats are an alternative with 1/1000th the PAH concentration of coal tar-based sealcoats.

What You Can Do

If You are a Homeowner or Manage Private Properties Such as Churches, Daycares, or Businesses:

- Do not seal your asphalt surfaces as often or at all.
- Hire contractors that will apply asphalt-based sealcoat rather than coal tar or other high-PAH sealcoats
- See back panel to learn how to identify coal tar and other sealcoat products with high PAH content
- Urge your neighbors to do the same

If You are a Concerned Resident or Local Official:

- Encourage local officials to stop the use of coal tar and other high PAH sealcoats on all public properties
- Advocate for a local ordinance banning coal tar and other high PAH sealcoats within your municipality