

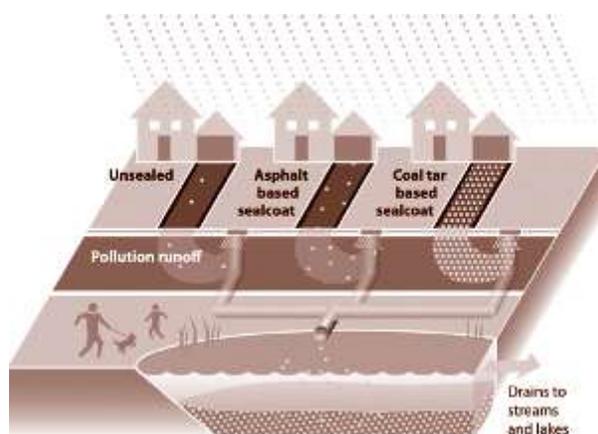


To Seal or Not To Seal: Making the right choice about coal tar sealants

If you are thinking about sealing your driveway this year there are a few things you may wish to consider. Many sealcoat products used on parking lots, driveways, and playgrounds are coal tar-based, a product that has very high concentrations of compounds called polycyclic aromatic hydrocarbons (PAHs). **According to information published by the U.S. Geological Survey (USGS), some PAHs are toxic to mammals (including humans), birds, fish, amphibians, invertebrates, and plants.** Aquatic invertebrates, the insects and other small animals that live in streams and lakes, are particularly susceptible to PAH contamination, especially the bottom dwellers (benthic invertebrates) that live in the mud where PAHs tend to

accumulate. The DuPage River Salt Creek Workgroup, a partner organization of The Conservation Foundation, found that PAH concentrations were above levels that could affect aquatic life at all of the 42 sites they sampled between 2006 and 2008. Certainly not all of these compounds came from coal tar-based sealants; PAHs come from multiple sources and are ubiquitous in urban environments. However, evidence is mounting that coal tar-based sealant is a major contributor to PAH concentrations in urban lakes and rivers.

Sealcoating doesn't stay put; it is worn away by tires, stripped by shoveling, and particles can be picked up by stormwater or your sneakers. Studies conducted by the USGS and the University of New Hampshire Stormwater Center reported the water, soil and house dust found by parking lots and driveways with coal tar-based sealant had highly elevated levels of PAHs. In a study of 40 urban lakes across the nation, coal tar-based sealant was found to be the largest source of PAHs in lake sediment at a number of lakes in the Midwest and the East, where coal tar-based sealants are more commonly used. Dust in apartments next to coal tar-based sealed parking lots had PAH pollution levels 25 times higher, on average, than other lots. PAH sediment concentrations increased from less than 4 mg/kg prior to sealing to 95.7 mg/kg after sealing.



Graphic courtesy of Minnesota Pollution Control Agency

So what are some alternatives to coal tar-based sealcoating? Concrete, unsealed asphalt pavement, and asphalt-based sealcoat all have lower concentrations of PAHs. If you decide to seal your driveway, read the product label carefully and avoid sealcoat that contains “coal tar,” refined coal tar,” “refined tar,” “refined coal tar pitch” or similar compounds. If you are hiring a contractor, make sure they use asphalt-based sealcoat. The cities of Austin, Texas, Madison, Wisconsin, Washington DC, and Prior Lake, Minnesota have banned coal tar-based sealants. Earlier this year, Washington became the first in the nation to ban coal tar-based sealants statewide. Several municipalities in northeastern Illinois are considering ways to restrict access to coal tar-based sealant. Bob Newport, US Environmental Protection Agency, Region 5 stated that, “it is a very topical, hot issue in the Midwest now.” US Representative Lloyd Doggett, D-Texas is seeking a nation-wide ban on coal tar-based sealants.

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For more information, please visit: <http://tx.usgs.gov/coring/allthingssealcoat.html>,
<http://pubs.usgs.gov/fs/2011/3010/pdf/fs2011-3010.pdf>, www.unh.edu/unhsc/, or
<http://www.drscw.org/nonpoint.html>