

## Talk to Your Contractor

When negotiating with a contractor to sealcoat a driveway, tennis court or common subdivision road, ask what type of product is used. Specify that you want an asphalt emulsion sealant. Request a safety data sheet for the contractor's product to confirm. *Avoid a sealant with any of the following Chemical Abstract Service (CAS) numbers on its ingredient list:*

CAS#'s - 65996-92-1 65996-93-2 65996-89-6  
800745-2 64742-90-1 69013-21-4



## If You Buy and Apply

When shopping for a sealant to apply yourself, look for asphalt emulsion sealants. Most home improvement stores sell these safer sealants. *Avoid products with the words:* coal tar, coal tar pitch, refined tar, coal tar pitch volatiles, RT-12, tar, steam-cracked petroleum residues, steam-cracked asphalt, pyrolysis fuel oil, heavy fuel oil, ethylene tar, ethylene bottoms or related terms and avoid products with the CAS numbers above.

Lastly, talk to your neighbors. Be sure they know the dangers too. **Ask for asphalt emulsion sealants** so our neighborhoods are safer for everyone.

For more information go to  
[www.bacog.org](http://www.bacog.org)



Sealants are applied on driveways, playgrounds, and other asphalt pavements to give old surfaces a black, glossy restored appearance. But if toxic coal tar and other high PAH sealants are used, they come with a potential danger. Coal tar sealants are linked to an increased risk of cancer, especially in children. Look inside for ways to protect yourself and your family.

## Ask for asphalt emulsion sealants.

The Barrington Area Council of Governments is a regional planning organization whose members are the Villages of Barrington, Barrington Hills, Lake Barrington, North Barrington, South Barrington, Tower Lakes, Cuba and Barrington Townships.



Barrington Area  
Council Of  
Governments

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Can Your Driveway  
Make You Sick?

COAL  
TAR  
SEALANTS



Barrington Area Council  
Of Governments



Pouring seal coating on a driveway.

photo: Minnesota Pollution Control Agency

## PAHs are Toxic

In humans, prolonged exposure to PAHs has been linked to lung, skin, bladder and respiratory cancers.

Sealant and coal tar particles in rivers and streams can inhibit reproduction and cause DNA damage, mutations, cancer and death in aquatic life forms.



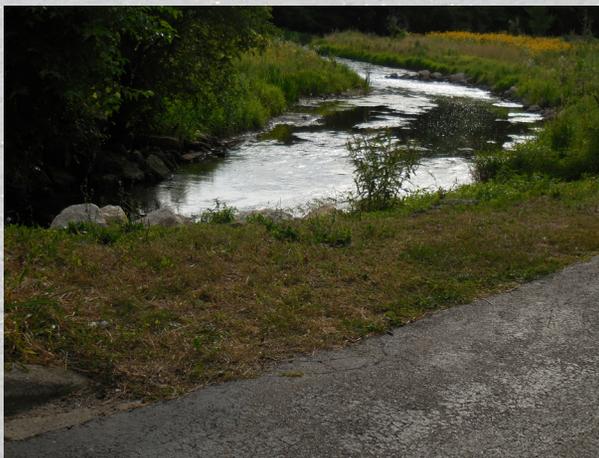
Mouth tumors in fish have been linked to PAH concentration in sediments (Pinkney, 2009).  
Photograph by A. E. Pinkney

## I'm Putting WHAT on My Driveway?

The black shiny top coat you put on your driveway to protect it from weathering and to maintain a dark, glossy appearance could be a coal tar-based or other sealant with high Polycyclic Aromatic Hydrocarbons (PAHs).

## A Known Carcinogen

Coal tar sealants and certain other sealants are a potent source of polycyclic aromatic hydrocarbons (PAHs), as documented by the USGS and other researchers. Coal tar and some PAHs are recognized carcinogens by the U.S. Department of Health and Human Services and international agencies. Prolonged exposure is hazardous to humans and aquatic life.

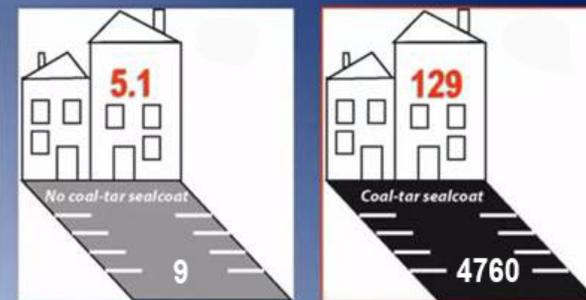


Skin contact is one way humans can be exposed to PAHs.  
Photograph courtesy of McHenry County Planning and Development

## Why Does it Matter?

*Sealants do not stay on your driveway. Sealant particles flake off with vehicle and foot traffic, snow removal and in sunlight. Particles can blow away or wash into ponds and streams with stormwater. This dust is tracked into homes by people and pets, where potentially carcinogenic dust and PAHs can be inhaled, ingested and absorbed through the skin.*

Median total PAH [mg/kg]



Mahler et al., 2010, Environ. Sci. Technol

USGS

Studies have shown that dust in homes by parking lots with coal tar-based sealants have PAH concentrations 25 times higher than homes next to parking lots without coal tar sealants. Models suggest that over a lifetime the risk for cancer can be 38 times higher for people living adjacent to coal tar sealed pavements. Exposure for children under six years of age carries the greatest risk.

## Better Alternatives

Safer, asphalt-emulsion sealants have about 1/1,000<sup>th</sup> the PAHs of coal tar sealants. Asphalt-based sealants are similar in cost and durability to coal tar sealants and are widely available in stores and from contractors. Alternately, residents may choose to leave pavement unsealed or replace asphalt with concrete, pavers or surfaces other than asphalt.

### References:

Mahler, B.J., Woodside, M.D., and VanMetre, P.C., 2016, Coal-tar-based pavement sealcoat-Potential concerns for human health and aquatic life: U.S. Geological Survey Fact Sheet 2016-3017, 6 p., <http://dx.doi.org/10.3133/fs20163017>, and its cited references.

USGS Website/Texas Water Science Center; USGS Research: PAHs and Coal-Tar-Based Pavement Sealcoat, <http://tx.usgs.gov/sealcoat.html>