



WHAT ARE SEALANTS?

Pavement or asphalt sealants are widely used liquids that are applied to driveways and parking lots to protect and improve the appearance of paved surfaces. Coal tar-based sealants are the number one type used in the Midwest and eastern United States.



THE CONCERN

Coal tar sealants have been the subject of recent scrutiny for the risk they pose to human health, water quality, and aquatic life. Coal tar sealants contain extremely high concentrations of poly aromatic hydrocarbons (PAHs). This class of chemicals is known to cause cancer, genetic mutations, and birth defects. PAHs can also cause death among fish, invertebrates, and other wildlife. Coal tar sealants contain nearly 1,000 times higher PAH concentrations than asphalt-based sealants.

SELECTING SAFER ALTERNATIVES

When selecting a product, look at the label or Material Safety Data Sheet. Avoid products labeled with these terms or numbers:

- CAS# 65996-92-1
- CAS# 65996-93-2
- CAS# 65996-89-6
- CAS# 8007-45-2
- Coal Tar
- Refined Coal Tar
- Coal Tar Pitch
- Refined Coal Tar Pitch
- Coal Tar Distillates
- Coal Tar Pitch Volatiles
- RT-12
- Steam-cracked Petroleum Residues
- Steam-cracked Asphalt
- Pyrolysis Oil
- Heavy Fuel Oil (HFO)



The Watershed Center Grand Traverse Bay advocates for clean water in Grand Traverse Bay and protects and preserves its watershed. For more information, please contact us at **231.935.1514** or visit www.gtbay.org

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TOXIC PAVEMENT SEALANTS: *Know the Human Health and Environmental Risks*



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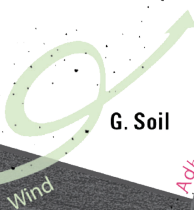
A. Sealcoat product



H. House dust



G. Soil



Tracking

Run-off

Wind

Adhesion

Abrasion

Sealcoat

Asphalt pavement

B. Pavement dust

C. Runoff

D. Stormwater management device

E. Lake sediment

Particles of coal tar sealants containing high concentrations of PAHs enter the environment over time. Sealants (A) dry and become pavement dust (B). Pavement dust is transported by runoff (C) to stormwater systems (D) and waterbodies (E). Pavement dusts sticks to tires (F) and is blown into nearby soil (G). Walking on surfaces sealed with coal tar products introduces PAHs into homes where it settles as household dust (H).

Credit: Barbara Mahler, USGS. Public domain.

EXPOSURE PATHWAYS

PAHs from coal tar sealants enter the environment through stormwater runoff, wind, volatilization, tire abrasion, and foot traffic. Stormwater washes PAHs and other toxins found in coal tar sealants into ponds, lakes, streams, and wetlands where it sticks to soil particles. PAH runoff is linked to fish and invertebrate mortality and developmental issues.

PAHs may be inhaled during activities on or near a surface coated with a coal tar sealant. Walking on surfaces coated in coal tar sealants introduce PAHs into homes, where they settle as house dust. Young children who play on the floor and put objects into their mouths are further exposed to PAHs. The estimated cancer risk for people living adjacent to surfaces coated in coal tar sealants is on average 38 times higher than for people living adjacent to unsealed pavement.



AVOIDING RISKS

- Seek alternative sealant products with lower levels of PAHs.
- Remove shoes before entering homes to avoid tracking coal tar dust.
- Encourage local officials to stop using coal tar and other high PAH sealants on public paved surfaces.
- Advocate for a local ban on coal tar and other high PAH sealants in your community.

