

Coal Tar Sealants





Coal Tar Sealant- What is it?

- Sealant is the black liquid sprayed onto asphalt pavement such as driveways, playgrounds, and parking lots
 - Two common sealants are asphalt emulsion and coal tar emulsions
 - Coal tar emulsions contain coal tar pitch (a byproduct of the coking of coal)
 - Coal tar pitch is a known human carcinogen containing 200 different PAHs (polycyclic aromatic hydrocarbons)
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2009 USGS (United States Geological Survey) Study¹

- Dust from coal tar based sealants has greatly elevated PAH concentrations
 - Coal tar based sealant is the largest source of PAH contaminations to 40 urban lakes studied
 - Coal tar based sealant is the primary cause of upward trends on PAHs since the 1960s
 - House dust in residences adjacent to coal tar based sealed surfaces have 25 times greater PAH concentrations
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Baylor University Study²

- November 2012 report
 - Agrees with USGS that significantly higher PAH is found in settled house dust adjacent to coal tar sealed surfaces
 - Analyzed exposure to benzo(a)pyrene, especially in young children
 - Concluded that the presence of coal tar sealant is associated with significant increases in estimated excess lifetime cancer risk
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Public Health Concerns

- National Toxicology Program, Department of Health and Human Services, Report on Carcinogens states “Coal tar and coal-tar pitches are known to be human carcinogens based on sufficient evidence of carcinogenicity from studies in humans”⁸
 - Lifetime exposure to PAH is 38 times greater for those living adjacent to coal tar sealed pavement⁴
 - Probable cancer risk to children exposed to dust tracked into homes is estimated at 1 in 10,000⁵
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Public Health Concerns

- Chicago Department of Public Health testified at a committee hearing that “research warrants the attention of policy makers and it provides a solid evidence base for the proposed ban or other measures to address the adverse health impact of coal tar sealants”⁶
 - Chicago Physicians for Social Responsibility supported a coal tar ban citing the vulnerability of children to PAH pollution⁹
 - The Austin Chapter of Physicians for Social Responsibility supported a ban and urged “to protect the public’s health by prohibiting the use of these products”⁷
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What has Changed

- McHenry County State's Attorney opinion presented to the NERC Committee stated that "coal tar sealant may be regulated by the County pursuant to its public health related powers granted by the County Code"
 - Home Depot, Ace, and Lowes have ban the sale of coal tar based sealants
 - Additional research and testimony has been completed on the Public Health aspect (Baylor Study, Chicago Department of Public Health)
 - Media attention- extensive coverage in local and national newspapers, news shows, and national show "The Doctors"
 - Local and statewide bans continue to increase
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Current Coal Tar Bans⁷

- Austin, Texas (first ban in 2005)
 - Washington, D.C. (federal district ban)
 - Washington State
 - Minnesota currently 29 local bans with statewide ban to go into effect January 1, 2014
 - Dane County, WI
 - Montgomery County, MD
 - Suffolk County, NY
 - South Barrington, IL
 - Lake in the Hills, IL (government use restriction)
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Where to Go From Here

- Acknowledge the studies and testimonies presented addressing the potential health concerns based on exposure to coal tar sealants
 - Conclude that regulation would be in the best interest of the County to promote the health of McHenry County citizens
 - Create an ordinance banning the use of coal tar sealants throughout McHenry County to promote the health of McHenry County citizens
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References

1. U.S. Geological Survey (USGS)

Coal Tar Sealant Largest Source of PAHs in Lakes, December 1, 2010

2. Cancer Risk from Incidental Ingestion Exposures to PAHs Associated with Coal-Tar-Sealed Pavement

Environmental Science & Technology, 2013

3. Baylor University Study

E. Spencer Williams, Barbara J. Mahler, and Peter C. Van Metre Baylor University, Center for Reservoir and Aquatic Systems Research

4. Coal-tar Pavement Sealants Might Substantially Increase Children's PAH exposures

Environmental Pollut. 2012

5. Polycyclic Aromatic Hydrocarbons and Human Health

E. Spencer Williams, University of Connecticut PAH Seminar, November 2011

References

6. City of Chicago Department of Public Health Testimony

Dr. Cortland Lohff, June 7, 2013

7. Austin Chapter of Physicians for Social Responsibility Letter Re: Proposed rule change for Chapter 713, Subchapter H 713.703-Prohibitions-Coal Tar Pavement Products dated November 6, 2012

8. National Toxicology Program

Coal Tars and Coal-Tar Pitches, CAS No. 8007-45-2 Report of Human Carcinogens, Twelfth Edition (June 2011)

9. Coal Tar Free America, "Chicago Department of Public Health, Physicians Back Coal Tar Sealant Action in Nation's Third Largest City," June 10, 2013
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