

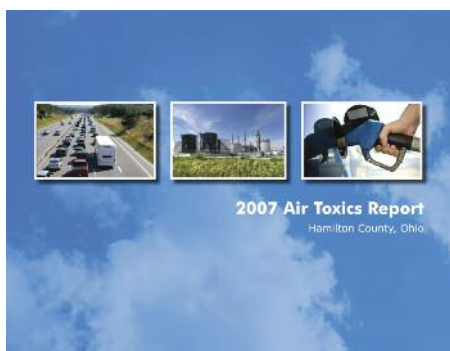


# Our Neighborhoods

Citizens, government and industry working to promote public understanding and involvement in chemical risk management

## Hamilton County Releases New Air Toxics Report

In May 2009, the Hamilton County Department of Environmental Services (HCDOES) issued its first "Air Toxics Report" to help residents understand what chemicals are in our air and what their presence means in terms of public health.



### What are Air Toxics?

Air toxics, also known as toxic air pollutants, are chemicals that can potentially have a toxic or harmful effect on human health. These effects can range from a minor ailment such as a sore throat or headache to a serious condition such as asthma or cancer.

Air toxics in Hamilton County are produced by three main sources:

- ▶ **Area:** Smaller sources of air pollution such as gas stations, dry cleaners, home furnaces and smaller industries that are fixed in a location.
- ▶ **Industrial:** Larger sources of air pollution, such as chemical manufacturers, power plants, and refineries that are fixed in a location.
- ▶ **Mobile:** Cars, trucks, buses, airplanes and other sources of air pollution that are mobile.

To measure toxic chemicals in our air, HCDOES operates air monitors at five

locations throughout the county, including Addyston, Carthage, Lower Price Hill, Reading, and Winton Place.

The Carthage, Lower Price Hill, and Winton Place stations have been operated since the late 1980s. The Addyston station has been operated since 2005. The Reading station has been operated since 1996, but was discontinued mid-way through 2007.

### Chemicals of Concern

In the air toxics report, the monitoring data from 2007 were analyzed and compared to U.S. EPA's health guidelines to estimate potential health risks.

The analysis identified five chemicals of potential concern for Hamilton County, which are defined as those most likely to result in cancer and non-cancer health risks. They include:

- ▶ Acrylonitrile
- ▶ Benzene
- ▶ 1,3-Butadiene
- ▶ Carbon Tetrachloride
- ▶ Chloroform

#### Acrylonitrile

Acrylonitrile, an industrial process chemical, was only detected at the Addyston station.

#### Benzene

Benzene, which was detected at all five air monitoring stations, is a component in gasoline.

#### 1,3-Butadiene

1,3-butadiene, which was detected at every station except for Reading, is formed during the combustion of gasoline and is also an industrial process chemical.

continued on back page



## Company Contacts

Agrium US, North Bend  
Tim Boll, (513) 941-4100, Ext. 16

Cognis Oleochemicals, Winton Place  
Mike Groh, (513) 482-2425

Dow Chemical (Rohm and Haas), Reading  
Keith Mesch, (513) 733-2154

DuPont Specialty Chemicals, North Bend  
Eric Brown, (513) 941-4121, x12

EMD Chemicals, Norwood  
Rob Highley, (513) 587-5186

Givaudan Flavors Corp., Carthage  
David Schuster, (513) 948-4263

Gtr. Cincinnati Water Works, California  
Bill Phelps, (513) 591-7971

J.M. Smucker Company, St. Bernard  
Neil Morstadt, (513) 482-8285

Metropolitan Sewer Dist., Lwr Price Hill  
Tony Parrott, (513) 244-5122

Nease Corporation, Crosby Twp.  
Carl Deskins, (513) 738-1255, x114

PCS Purified Phosphates, Crosby Twp.  
Jack Sullivan, (513) 738-1261, x253

Pilot Chemical, Lockland & Middletown  
Tom Melhorn, (513) 733-4880, x30 (Cinti)  
Dennis Callison, (513) 424-9700, x224 (Middletown)

Procter & Gamble Company, St. Bernard  
Jack Dison, (513) 627-4567 (Ivorydale)  
Bob Harper, (513) 945-4805 (Winton Hill)

Rhodia Inc., Bond Hill  
Daniel Tate/Rod Lynch, (513) 242-3312

Shepherd Chemical, Norwood  
Rob Paxton, (513) 458-6817

Please call these  
Alliance for Chemical Safety  
industry contacts if you have questions  
about chemicals in your neighborhood.

## Alliance Presents 2008 Risk Reduction, Risk Communication Awards at Annual Banquet

Pilot Chemical Company, the Cincinnati/Northern Kentucky Airport, the Regional Emergency Planning Committee and two individuals were honored this year by the Alliance for Chemical Safety for improving chemical safety in the Greater Cincinnati area.

This 8th annual awards program took place on January 21, 2009 at Cincinnati State Technical and Community College.

The following awards were presented:

### ► 2008 Risk Reduction Achievement Award

Pilot Chemical Company received this award for employee safety improvements at its Lockland facility. The company replaced dry flake phthalic anhydride (PA), a toxic and corrosive chemical which presents a dust and exposure hazard, with molten PA to reduce exposure to employees during the production of Pilot D-300. The new system was started in late 2008 and has completely eliminated the dust exposure potential from PA within the plant.



**Pilot Chemical Company in Lockland, winner of the Risk Reduction Award**

The Kenton County Airport Board for the Cincinnati/Northern Kentucky International Airport also received this award for significantly reducing the environmental impact of aircraft and runway deicing on Gunpowder and Elijah Creeks. The airport installed a \$30 million system to collect and treat storm

water containing deicing fluids.

### ► 2008 Risk Communication Excellence Award

The Regional Emergency Planning Committee (REPC), a partnership of several Local Emergency Planning Committees, received this award for the development, publication, and distribution of emergency preparedness "Fingertip" books throughout the Greater Cincinnati area. The books, which are about 2 x 1.5" in size, can attach to a refrigerator or other magnetized surface and offer emergency preparedness information for citizens.

### ► 2008 Second Mile Award

Jim Weast of the Industrial Waste Division of the Metropolitan Sewer District of Greater Cincinnati (MSD) received this award for helping create a Spill Response Plan for the Mill Creek. During the past year and a half, Jim has worked tirelessly to create maps and diagrams of spill recovery locations along the Mill Creek, stretching from the Ohio River to Union Center Blvd. in Butler County. Jim's work will be used by fire departments, hazmat teams, industrial responders, cleanup contractors and other professionals.

Duane Day of INEOS ABS (USA) Corp. also received this award for his long-term promotion of chemical safety in the Greater Cincinnati area. Duane was one of the original founders and leaders of the Alliance for Chemical Safety, which was established in 1997. He served as Chair for two years and was head of both the communication and chemical safety committees. During his tenure, Duane was instrumental in a variety of Alliance projects and activities, including the 1999 Risk Management Program (RMP) rollout and development of the Shelter-In-Place program.

## Community Outreach

Every year, the Alliance participates in local fairs and festivals to help educate the community about Shelter In Place.

Shelter In Place is a safety procedure designed to help protect you and your family during a serious airborne chemical release. It means taking shelter inside your home, work place, school or other building until the danger has passed.

The goal of Shelter In Place is to prevent contaminated outside air from entering your home or other shelter. For more information, visit [www.acs-online.org](http://www.acs-online.org).



**Top: Earth Day 2009 on April 18 at Sawyer Point.**

**Middle: Edem Gadagbui, our turtle mascot, at Earth Day 2009.**

**Bottom: Kid's Outdoor Adventure Expo at Paddlefest 2009 on June 26 at Coney Island.**



## Hamilton County Receives \$1 Million Clean Diesel Grant

On June 3, 2009, U.S. EPA Administrator Lisa Jackson presented a \$1 million grant to Hamilton County for 60 new “clean diesel” buses.

The grant was funded by the American Recovery and Reinvestment Act (ARRA), commonly known as the stimulus package.

Seven local school districts pitched in an additional \$3.24 million to fund the project, which will keep 15,000 pounds of toxic emissions a year out of our air.

The school district and the numbers of buses purchased include: Forest Hills Local (6), Loveland City (4), Mt. Healthy City (20), Northwest Local (6), Oak Hills Local (4), Princeton City (15), and Three Rivers (5).

Nationally, diesel emissions present 78% of the added cancer risk. Diesel exhaust contains 40 hazardous compounds, of which four are known carcinogens. Long-term exposure to diesel exhaust causes lung cancer.

The Hamilton County Department of Environmental Services (HCDOES) has worked since 2004 to reduce diesel emissions. Prior to June 3, the agency had received \$500,000 in grants, which were used to retrofit 460 school buses with clean diesel technology.

**Source: HCDOES, Community Breeze newsletter, Summer 2009.**

## Science Fair Project Studies Lead in Imports

The 5th annual Science and Engineering Expo was held March 14, 2009 at the main campus of the University of Cincinnati. Students in grades 7 – 12 from Southwest Ohio entered their projects and competed for scholarships of up to \$5,000 and special cash awards.

The Science and Engineering Expo challenges students to approach problems using the scientific method: state a question, formulate a hypothesis, identify variables, design an experiment and analyze the results. The Expo is a unique way to nurture tomorrow’s engineers and scientists, and the Alliance for Chemical Safety is proud to support it.

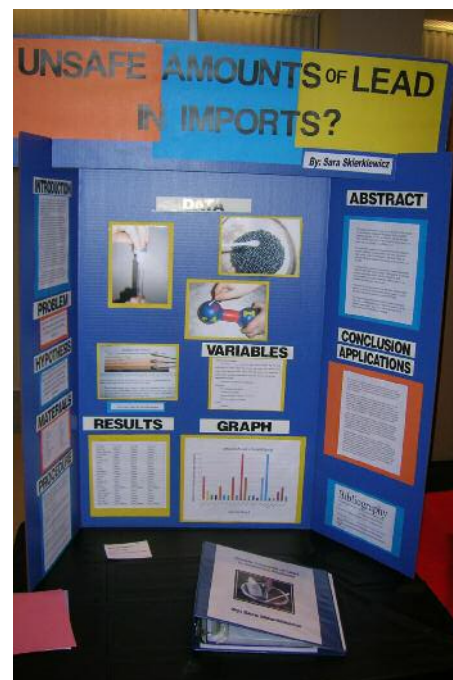
This year, the Alliance presented a \$100 special cash award to Sara Skierkiewicz of St. Columban School in Loveland, Ohio. Her project, “Unsafe Levels of Lead In Imports,” identified the presence of lead compounds in imported household products.

Sara conducted her research with the hypothesis that many imported products contain lead compounds in the form of inks, paints, or colored pigments. She acquired a number of imported household products and tested them for the presence of lead using a commercially available lead test kit. Although the test kit had some analytical limitations, it allowed for semi-quantitative measurements and relative com-

parisons.

Her findings confirmed her hypothesis. Virtually all of the imported products tested positive for lead, including a rubberized dog bone.

Since there is no established “safe” level for lead, she concluded lead in household products should be eliminated and replaced with less toxic substitutes or at least reduced as much as possible for consumer safety, thus reducing risk to people and the environment.



**Science fair display by Sara Skierkiewicz of St. Columban.**

## Alliance Receives Rachael Carson Award

The American Industrial Hygiene Association’s (AIHA) Environmental Issues Committee presented the Alliance with the 2009 Rachael Carson Award at their annual meeting in Toronto, Canada in June 2009.

The AIHA presents this annual award to those individuals or organizations that have achieved outstanding success and distinction in the environmental,

health, and safety field.

The Alliance earned the award for its volunteer work associated with chemical safety education. The Alliance sponsors free monthly meetings on chemical safety topics, hosts workshops, undertakes community service projects, and educates the local community about Shelter In Place via local fairs and festivals.

# Hamilton County Air Toxics Report...

## Carbon Tetrachloride

Carbon tetrachloride, detected at all five air monitoring stations, was heavily used as an industrial solvent until the 1980s, when it was phased out due to its potential to cause cancer.

Its slow breakdown in the environment contributes to its persistent concentration. Carbon tetrachloride is common in air across the U.S., but at very low concentrations.

## Chloroform

Chloroform, which was detected at the Addyston, Carthage, and Lower Price Hill stations, is mainly a disinfection byproduct of chlorinated drinking water, swimming pools, and wastewater treatment plants. As a result, it is commonly found in the air of most major cities.

## **Cancer Risks**

The total potential excess cancer risk in Hamilton County (based on all detected chemicals for 2007) is estimated to range from 3 to 44 additional cancers per 100,000 people, depending on the monitoring site.

The Addyston site presents the highest

potential cancer risk, and the Carthage and Lower Price Hill sites present the lowest risk.

The 2007 Air Toxics Report was developed to be "health protective" and is therefore conservative in its methodology.

## **How Do We Compare to Other Cities?**

With the exception of acrylonitrile, the chemicals of potential concern are similar to the chemicals found in the air of other major industrial cities across the U.S., as reported in the U.S. EPA's National-Scale Air Toxics Assessment (NATA).

## **Conclusion**

As the result of the 2007 analysis, HCD-DOES does not plan to add any additional monitoring sites in Hamilton County.

The issues in Addyston are known to regulators and are being addressed. The industrial source of both the 1,3-butadiene and acrylonitrile emissions is taking action to reduce them. 1,3-butadiene emissions have been trending downward since 2007.

## **Concerned About Chemical Safety?**

Join the Alliance for Chemical Safety, a 501(c)(3) non-profit organization dedicated to promoting chemical safety in the Greater Cincinnati area.

Alliance members include citizens, emergency responders, government agencies, and local industries.

The Alliance sponsors public meetings on the second Wednesday of each month at the Health Foundation of Greater Cincinnati.

**The Alliance is currently searching for an interested citizen to serve on its Steering Team, a volunteer group that helps guide the organization.**

The time commitment is 2-4 hours each month.

For more information, please call the Alliance office at (513) 508-4848 or visit our web site at [www.acs-online.org](http://www.acs-online.org).



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