HUMAN TOXOME PROJECT Mapping the Pollution in People ENVIRONMENTAL WORKING GROUP

PFHxA (Perfluorohexanoic acid)

Breakdown product of stain- and grease-proof coatings on food packaging and household products. Highly persistent in people and the environment.

PFHxA (Perfluorohexanoic acid) has been found in 16 of the 88 people tested in EWG/Commonweal studies.

Results for PFHxA (Perfluorohexanoic acid)

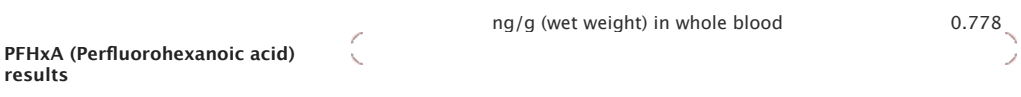
PFHxA (Perfluorohexanoic acid) was measured in different units for some of the studies. Overall it was found in 16 of 88 people tested in EWG/Commonweal studies. The bars below are grouped by units:

IN WHOLE BLOOD (WET WEIGHT)

Showing results from Pollution in Minority Newborns, EWG Study #3, industrial chemicals and pesticides in adults, EWG/Commonweal Study #4, industrial chemicals and pesticides in cord blood

EWG/Commonweal results

- geometric mean: **0.269** ng/g (wet weight) in whole blood
- found in **13 of 23** people in the group



IN BLOOD SERUM (WET WEIGHT)

Showing results from EWG Study #5, Teflon and mercury in blood in adults and teens

EWG/Commonweal results

- found in **0 of 8** people in the group

IN BLOOD SERUM (WET WEIGHT)

Showing results from Pets Project, EWG/Commonweal Study #7, consumer product chemicals in adults and teens, EWG Study #8, chemicals in mother and 2 children, Dateline NBC Families, Dateline NBC Families, Other Body Burden Studies, Adult Minority Leader Report, EWG Study #6, consumer product chemicals in mothers and daughters

EWG/Commonweal results

CHEMICAL INFORMATION

CAS RN:
307-24-4

Chemical Class:
Perfluorochemical (PFC)

Chemical SubClass
Perfluorinated carboxylic acid

Manufacturing/Use Status
there are no restrictions on the production/use in the U.S.

Found in these people:
Anonymous Adult 2, Anonymous Teen 1, Anonymous Adult 20, Baby #1, Baby #2, Baby #3, Baby #4, Baby #5, Baby #6, Baby #7, Baby #8, Baby #9, Baby #10, Anonymous Adult 1, Kathy Fowler, U.S. Representative Louise Slaughter

Found in these locations:
Chicago, IL; Atlanta, GA; Fallbrook, CA; Rockville, MD; Upstate New York, NY

Exposure routes:
Stain- and grease-proof coatings on food packaging, couches, carpets.

SUMMARY

Perfluorohexanoic acid (PFHxA) is a breakdown product of stain- and grease-proof coatings on food packaging, couches, and carpets, including Stainmaster. The chemical is part of a family of perfluoroalkyl carboxylates, all with structures similar to the well-known chemical contaminant PFOA, but with carbon chain lengths ranging from 4 to 15 carbons. PFHxA is the 6 carbon version of PFOA.

All of these perfluoroalkyl carboxylates are highly persistent. Many of them – particularly PFOA – have also been found in human and wildlife blood and tissues from around the globe, even in remote locations such as the arctic (3M 2000; Bossi 2005; Guruge 2005; Smithwick 2005; Van de Vijver 2005; Lange 2006). The carboxylates with longer carbon chains (particularly those with at least 8 carbons) are found more often in humans and wildlife than those compounds with shorter carbon chains.

While there has been very little research done on the toxicity of PFHxA itself, PFOA has been studied extensively. Animal studies have linked PFOA exposure to low birth weight, decreased growth, decreased pituitary size, increased number of dead or cannibalized pups, decreased breast-feeding, decreased liver size, delayed puberty, altered reproductive cycles and hormone levels, decreased kidney size, immune system problems, cancer, and death (EPA 2002; York 2002). In January of

- found in **3 of 57** people in the group

found in 3 of 57 people, but not quantified

2006, the Environmental Protection Agency's (EPA) Science Advisory Board recommended that PFOA be classified as a likely human carcinogen.

In January of 2006, the EPA asked eight manufacturers that use PFOA to reduce production 95% by 2010, and to stop using it altogether by 2015. But because PFOA never breaks down, this means that every PFOA molecule on the planet is here to stay; opportunities for humans (and other animals) to be exposed continuously to PFOA will continue even after production ceases. Furthermore, similar action has not been taken on chemicals that break down into PFOA or its related perfluoroalkyl carboxylates, making EPA's action even less effective for actually making meaningful reductions in exposures to these compounds.