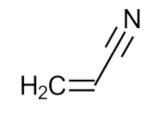
CAS 107-13-1 Acrylonitrile C₃H₃N





Summary of Health Effects

Acrylonitrile has been linked to lung cancer in humans and may cause digestive tract, mammary gland, and central nervous system cancers based on animal studies.

How is acrylonitrile used?

Acrylonitrile is used to make synthetic fibers and plastics.¹

Toxicity: What are its health effects?

The International Agency for Research on Cancer classified acrylonitrile as a possible carcinogen.¹ The National Toxicology Program determined that acrylonitrile is reasonably anticipated to be a carcinogen.²

Acrylonitrile may cause cancers of the digestive tract, mammary gland, and central nervous system.¹⁻⁴ Studies have found increased rates of lung cancer for occupationally exposed individuals.²

Exposure: How can a person come in contact with it?

A person can come in contact with acrylonitrile by breathing in contaminated air or tobacco smoke, eating contaminated foods, or from skin contact with consumer products made with acrylonitrile materials.²

The 2014 National Health and Nutrition Examination Survey (NHANES) detected a breakdown product of acrylonitrile in the urine most of the population surveyed, both smokers and nonsmokers.⁵

Acrylonitrile was identified in the Environmental Protection Agency's Urban Air Toxics Strategy as one of 33 hazardous air pollutants that present the greatest threat to public health in urban areas.⁶

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