



## 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.<sup>1</sup>

## Toxicity: What are its health effects?

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

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

## 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.<sup>2</sup>

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 non-smokers.<sup>5</sup>

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.<sup>6</sup>

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## References

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