

**WHAT EPA PROGRAM OFFICES REGULATE ACRYLAMIDE, AND UNDER WHAT LAWS IS IT REGULATED?**

<b>EPA OFFICE</b>	<b>LAW</b>	<b>PHONE NUMBER</b>
Pollution Prevention & Toxics	Toxic Substances Control Act	(202) 554-1404
	Emergency Planning and Community Right-to-Know Act (EPCRA): Regulations (§ 313)	(800) 535-0202
	Toxics Release Inventory data	(202) 260-1531
Air	Clean Air Act	(919) 541-0888
Solid Waste & Emergency Response	Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)	(800) 535-0202
Water	Resource Conservation and Recovery Act / EPCRA (§ 304/311/312)	
	Safe Drinking Water Act	(800) 426-4791

A technical support document is available from the TSCA Assistance Information Service, (202) 554-1404.

**WHAT OTHER FEDERAL AGENCIES OR GROUPS CAN I CONTACT FOR INFORMATION ON ACRYLAMIDE?**

<b>AGENCY/GROUP</b>	<b>PHONE NUMBER</b>
American Conference of Governmental Industrial Hygienists	(513) 742-2020
Consumer Product Safety Commission	(301) 504-0994
Food and Drug Administration	(301) 443-3170
National Institute for Environmental Health Sciences (EnviroHealth Clearinghouse)	(800) 643-4794
National Institute for Occupational Safety and Health (NIOSH)	(800) 356-4674
Occupational Safety and Health Administration	(Check your local phone book under U.S. Department of Labor)



United States  
Environmental Protection Agency  
Mail Code 7401

Washington, DC 20460

Official Business  
Penalty for Private Use  
\$300



**EPA Chemicals in the Environment**

United States  
Environmental Protection Agency  
EPA 740-F-94-005  
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Office of Pollution Prevention and Toxics (7401)

**ACRYLAMIDE**  
**(CAS NO. 79-06-1)**

Chemicals can be released to the environment as a result of their manufacture, processing, and use. The EPA has developed information summaries on selected chemicals to describe how you might be exposed to these chemicals, how exposure to them might affect you and the environment, what happens to them in the environment, who regulates them, and whom to contact for additional information. EPA is committed to reducing environmental releases of chemicals through source reduction and other practices that reduce creation of pollutants.

### **WHAT IS ACRYLAMIDE, HOW IS IT USED, AND HOW MIGHT I BE EXPOSED?**

Acrylamide is an odorless solid that exists as flake-like crystals. It does not occur naturally but is produced in large amounts (100 million pounds in 1992) by three companies in the United States. US demand for acrylamide is likely to increase during the next several years. The largest users of acrylamide are companies that make polyacrylamide polymers. Companies also use acrylamide to make N-butoxyacrylamide and N-methylolacrylamide. Products such as clarifying agents, adhesives, printing ink emulsion stabilizers, thickening agents for agricultural sprays, and water retention aids can also contain acrylamide.

Exposure to acrylamide can occur in the workplace or in the environ-

ment following releases to air, water, land, or groundwater. Acrylamide enters the body when breathed in with contaminated air or when consumed with contaminated food or water. It can also be absorbed through skin contact. It is not likely to remain in the body due to its removal in urine.

### **WHAT HAPPENS TO ACRYLAMIDE IN THE ENVIRONMENT?**

Acrylamide dissolves when mixed with water. Most direct releases of acrylamide to the environment are to underground sites or to air. Once in air, acrylamide breaks down to other chemicals. Microorganisms that live in water and in soil can also break down acrylamide. Because of its ability to mix with water and its inability to bind well to soil, acrylamide that makes its way into the ground can move through the ground and enter groundwater. Plants and animals are not likely to store acrylamide.

### **HOW DOES ACRYLAMIDE AFFECT HUMAN HEALTH AND THE ENVIRONMENT?**

Effects of acrylamide on human health and the environment depend on how much acrylamide is present and the length and frequency of exposure. Effects also depend on the health of a person or the condition of the environment when exposure occurs.

Exposure to acrylamide for short periods of time can adversely affect the

human nervous system. Effects range from drowsiness to incoordination, hallucinations, and confusion. Direct contact with dissolved acrylamide irritates the skin. Acrylamide dust irritates the respiratory system. These effects are not likely to occur at levels of acrylamide that are normally found in the environment.

Human health effects associated with breathing or otherwise consuming small amounts of acrylamide over long periods of time are not known. Workers repeatedly exposed to acrylamide have developed neurologic symptoms such as abnormal sensation, muscle weakness, and incoordination. Laboratory studies show that repeat exposure to acrylamide causes similar adverse nervous system effects in animals. Studies show that repeat exposure to acrylamide also causes general toxicity, adverse blood effects, and adverse reproductive effects in animals. Lifetime exposure to small amounts of acrylamide in drinking water causes cancer in animals. Repeat exposure to acrylamide may likewise cause cancer in humans.

Acrylamide is not likely to cause environmental harm at levels normally found in the environment.