

SECTION 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION

Product Name: Acrylamide
Product Code: A11125

Supplier: Pfaltz & Bauer, Inc.
172 E. Aurora Street
Waterbury, CT 06708 USA

Phone: 203 574-0075
Fax: 203 574-3181
Emergency Phone: CHEMTREC, US: 1-800-424-9300
CHEMTREC, International: 1-703-527-3887

SECTION 2: COMPOSITION/INFORMATION on INGREDIENTS

Chemical Name: Acrylamide
Synonyms: Acrylic amide; Ethylenecarboxamide; 2-Propenamide.
CAS Number: 79-06-1
Molecular Formula: C₃H₅NO
Molecular Weight: 71.08

SECTION 3: HAZARDS IDENTIFICATION

Acute Health Hazard: Acrylamide may cause nervous system damage. Acrylamide caused cancer and male reproductive disorders in laboratory animal tests. Acrylamide may polymerize explosively if heated to 183°F (84°C). Acrylamide may form explosive dust-air mixtures. Harmful if swallowed, inhaled, or absorbed through the skin. Causes eye irritation. May cause allergic skin reaction. Cancer suspect agent. Light sensitive. Air sensitive.

Chronic Health Hazard: **Eye:** Causes eye irritation. Acrylamide can be absorbed through the eyes and overexposure will produce the signs and symptoms of neurotoxicity described below.
Skin: May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Acrylamide is readily absorbed through unbroken skin and can cause nervous system effects (neurotoxicity). These effects can result from a single overexposure but are more likely after repeated

exposures to small amounts over a period of days or weeks. Signs and symptoms of overexposure include increased sweating of the hands and feet, numbness, tingling and weakness in the extremities, unsteady gait and decreased reflexes. If the exposure route is dermal, the symptoms may be preceded by peeling and redness of the skin at the areas of exposure, normally the hands and feet.

Ingestion: Harmful if swallowed. May cause central, peripheral, and autonomic nervous system effects. Central nervous system effects, which appear to predominate in acute cases, are characterized by abnormal fatigue, memory difficulties, and dizziness. Peripheral neuropathy symptoms, which are more common with repeated low-dose exposure or following a latency period of up to several weeks after acute exposure can include: muscular weakness, paresthesia, numbness in hands, feet, lower legs, and lower arms, unsteadiness, and difficulties in walking and standing. Autonomic nervous system involvement is indicated by excessive sweating, peripheral vasodilation and difficulties in micturation and defecation.

Inhalation: Acrylamide tends to sublime (go directly from solid to vapor form) which may lead to inhalation exposure. Acrylamide can be absorbed through the lungs and overexposure will produce the signs and symptoms of neurotoxicity described above.

Chronic: Prolonged or repeated skin contact may cause dermatitis. May cause cancer according to animal studies. Adverse reproductive effects have been reported in animals. Prolonged or repeated exposure affects the nervous system.

HMIS Rating: H:2 F:2 R:2

NFPA Rating: H:2 F:2 R:2

To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.

SECTION 4: FIRST AID MEASURES

Eye Contact: Flush eyes with large amounts of water for fifteen minutes. Separate eyelids with fingers. If irritation persists, seek medical attention.

Skin Contact: Wash skin with soap and water. If irritation persists, seek medical attention.

Ingestion: Do not induce vomiting. Seek medical attention.

Inhalation: Move to a fresh air environment. Contact a physician if breathing becomes difficult.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: Not Available

Explosion Limits: Lower: Not Available
Upper: Not Available

Auto Ignition Temperature: 240°C

Extinguishing Media: Carbon dioxide, dry chemical powder or foam, water spray.

Protective Equipment: Wear self-contained respirator and fully protective impervious suit.

Specific Hazards: Emits toxic fumes under fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Protection: Wear a self-contained breathing apparatus, rubber boots and gloves, and disposable coveralls. Dispose of coveralls after use. Keep unprotected persons away.

Environmental Protection: Keep spills out of sewers and bodies of water. Dike and contain the spill with inert material. Absorb on sand, vermiculite or diatomite. Transfer material to a container for disposal or recovery. Ventilate area and wash spill site after material pickup is complete.

SECTION 7: HANDLING and STORAGE

Handling: Avoid breathing dust, vapor, mist or gas. Avoid contact with skin and eyes. Avoid prolonged or repeated exposure. Use only in a chemical fume hood. Open and handle container with care. Keep ignition sources away.

Storage: Keep away from heat, sparks, and flame. Do not store in direct sunlight. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from acids. Do not store near alkaline substances. Keep away from polymerization catalysts. Should not be exposed to temperatures above 122°F (50°C).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Eyes:</u>	Wear appropriate protective eyeglass or chemical safety goggles. Eyewash facility in vicinity.			
<u>Skin:</u>	Wear impervious gloves and protective clothing.			
<u>Respiratory:</u>	Use a NIOSH approved respirator when exposure limits are exceeded or if irritation or other symptoms are experienced.			
<u>Exposure Limits:</u>	<u>Country</u>	<u>Source</u>	<u>Type</u>	<u>Value</u>
	USA	ACGIHTWA		0.03 mg/m ³
	USA	OSHA PEL		0.3 mg/m ³

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

<u>Appearance:</u>	White solid
<u>Odor:</u>	Odorless
<u>Melting Point:</u>	83 - 85°C
<u>Boiling Point:</u>	125°C/25 mm Hg
<u>Density:</u>	1.122 @ 30°C
<u>Refractive Index, n²⁰_D:</u>	Not Available
<u>Viscosity:</u>	Not Available
<u>Solubility in Water:</u>	Soluble
<u>Decomposition Temperature:</u>	84°C

SECTION 10: STABILITY and REACTIVITY

<u>Stability:</u>	Stable under normal temperatures and pressures.
<u>Hazardous Polymerization:</u>	May occur.
<u>Incompatibility:</u>	Metals, oxidizing agents, reducing agents, acids, bases, peroxides.

SECTION 11: TOXICOLOGICAL INFORMATION

<u>RTECS Number:</u>	AS3325000
<u>Target Organs:</u>	Eyes, nervous system, reproductive system, skin.
<u>Toxicity Data:</u>	Oral mouse: LD ₅₀ : 107 mg/kg
	Oral rabbit: LD ₅₀ : 150 mg/kg
	Oral rat: LD ₅₀ : 124 mg/kg
	Skin rabbit: LD ₅₀ : 1680 uL/kg
	Skin rat: LD ₅₀ : 400 mg/kg

Epidemiology: ACGIH calls acrylamide a confirmed animal carcinogen with unknown relevance to humans. An epidemiological study involving 8854 workers, 2293 exposed to acrylamide, did not show any significant increase in cancer mortality related to acrylamide exposure.

Teratogenicity: See actual entry in RTECS for complete information.

Reproductive Effects: Adverse reproductive effects have occurred in experimental animals.

Mutagenicity: See actual entry in RTECS for complete information.

Neurotoxicity: Neurotoxic effects have occurred in humans.

SECTION 12: ECOLOGICAL INFORMATION

Not Available

SECTION 13: DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service. Dispose in a manner consistent with federal, state and local environmental regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Shipping Name: CHEMICAL KITS

DOT UN Number: 3316

DOT Hazard Class: 9

DOT Packing Group: II

IATA Shipping Name: CHEMICAL KITS

IATA UN Number: 3316

IATA Hazard Class: 9

IATA Packing Group: II

SECTION 15: REGULATORY INFORMATION

United States:

Toxic Substance Control Act (TSCA): Listed

Superfund Amendments and Reauthorization Act (SARA 302): Listed

Superfund Amendments and Reauthorization Act (SARA 313): Listed

International:

European Inventory of Existing Chemical Substances (EINECS): Listed (201-173-7)

Canadian Domestic Substances List (DSL): Listed

SECTION 16: OTHER INFORMATION

Date Prepared: 2/19/2008 MAB

The information above is presented in good faith. It is believed to be accurate and represents the best information currently available to us. However we make no warranty with respect to such information and we assume no liability resulting from its use. The user should consider this information as a supplement to other information that may be available and make independent judgment to ensure proper use to protect the health and safety of employees and the environment. Pfaltz and Bauer shall not be held liable for any damage resulting from handling or from contact with the above product.