

Common Name: **ACRYLAMIDE**

Synonyms: Acrylic Amide; 2-Propenamidine

CAS No: 79-06-1

 Molecular Formula: C₃H₅NO

RTK Substance No: 0022

Description: Colorless to white, odorless flake-like solid

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
3 - Health 2 - Fire 2 - Reactivity DOT#: UN 2074 ERG Guide #: 153P Hazard Class: 6.1 (Poison)	Acrylamide is a COMBUSTIBLE SOLID. Use dry chemical, CO ₂ , water spray or foam as extinguishing agents. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Nitrogen Oxides</i> . CONTAINERS MAY EXPLODE IN FIRE. Use water spray to keep fire-exposed containers cool. Acrylamide decomposes and polymerizes above 184°F (85°C) releasing <i>Ammonia</i> and <i>Hydrogen gases</i> . Polymerization may be violent.	Acrylamide may polymerize violently when HEATED to its melting point; when exposed to ULTRAVIOLET LIGHT; or when exposed to STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE) or OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE). Acrylamide is not compatible with MINERAL ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); OLEUM; AMMONIA; ISOCYANATES; and COMPOUNDS containing HYDROXYL-, AMINO-, and SULFHYDRYL GROUPS.

SPILL/LEAKS

Isolation Distance:

Spill: 25 meters (75 feet)

Fire: 800 meters (1/2 mile) in all directions

Moisten spilled material first, or use a HEPA-filter vacuum for clean-up, and deposit into sealed containers.

DO NOT wash into sewer.

May bioaccumulate in aquatic life.

Severe marine pollutant.

PHYSICAL PROPERTIES

Odor Threshold:	Odorless
Flash Point:	280°F (138°C)
Auto Ignition Temp:	464°F (240°C)
Vapor Density:	2.45 (air = 1)
Vapor Pressure:	0.007 mm Hg at 68°F (20°C)
Specific Gravity:	1.22 (water = 1)
Water Solubility:	Soluble (Mixes)
Boiling Point:	347° to 572°F (175° to 300°C)
Melting Point:	184°F (85°C) (Violent polymerization)
Ionization Potential:	9.5 eV
Molecular Weight:	71.1

EXPOSURE LIMITS

OSHA:	0.3 mg/m ³ , 8-hr TWA
NIOSH:	0.03 mg/m ³ , 10-hr TWA
ACGIH:	0.03 mg/m ³ , 8-hr TWA
IDLH:	60 mg/m ³

PROTECTIVE EQUIPMENT

Gloves:	Butyl, Nitrile, Neoprene and Viton (>8-hr breakthrough)
Coveralls:	DuPont Tychem® Fabrics; Kappler® Zytron® 400; and Saint-Gobain ONESuit TEC (>8-hr breakthrough for <i>Amides</i>)
Respirator:	>0.03 mg/m ³ - Supplied air

HEALTH EFFECTS

Eyes:	Irritation, watering and inflammation
Skin:	Irritation, rash or burning feeling
Inhalation:	Nose and throat irritation with coughing and wheezing Confusion, disorientation, fatigue and tremors
Chronic:	Cancer (pancreas) in humans

FIRST AID AND DECONTAMINATION

Remove	the person from exposure.
Flush	eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn. Seek medical attention.
Quickly	remove contaminated clothing and wash contaminated skin with large amounts of water. Seek medical attention.
Begin	artificial respiration if breathing has stopped and CPR if necessary.
Transfer	to a medical facility.