



MATERIAL SAFETY DATA SHEETS

11

Acrylamide

1. CHEMICAL IDENTITY

Chemical Name : Acrylamide

Chemical Classification: Toxic

Trade Name :

Synonyms: 2-Propenamide, Acrylic acid amide, AAM, Ethylene carboxamide

Formula : C₃H₅NO

CAS No: 79-06-1

UN No: 2074

Regulated Identification

Shipping Name :

Hazchem Code : 2X

Codes / Label : Class 6.1, Toxic

Hazardous Waste ID No :

HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
1 Acrylamide	79-06-1	3	
2		4	

2. PHYSICAL / CHEMICAL DATA

Boiling Pt. °C: 192.6

Physical State: Solid

Appearance: White crystalline solid

Melting Pt °C: 84.5

Vapour Pressure 0.007 at 25 °C
@ 35°C mmHg:

Odour: Odourless

Vapour Density(Air =1): 2.45

Solubility in water at 30°C g/100ml: 215

Others: Soluble in ethanol, acetone, ethyl acetate, ether, chloroform. benzene.

Specific Gravity (Water =1) : 1.122 at 30°C with respect to water at 4°C

pH : 5.0-6.5 (50% aq. Soln)

3. FIRE / EXPLOSION HAZARD DATA

Flammability : Slight

LEL: 2.7

Flash Point °C in OC:

TDG Flammability:

UEL: 20.6

Flash Point °C in CC: 138

Autoignition Temperature °C : 424

Explosion sensitivity to impact:

Explosion sensitivity to static Electricity:

Hazardous Combustion Products : Toxic oxides of nitrogen are produced during combustion.

Hazardous Polymerization : Yes, it readily polymerizes when heated to the melting point or when exposed to ultraviolet light. It is known to polymerize with violence when heated.

Combustible Liquid:

Explosive Material:

Corrosive Material

Flammable Material:

Oxidiser :

Others:

Pyrophoric Material:

Organic Peroxide :

4. REACTIVITY DATA

Chemical Stability : Stable under normal shipping and handling conditions. However, may decompose if heated.

Incompatibility with other material : Strong oxidizers, reducing agents, acids, bases, and metals

Reactivity :

Hazardous : Carbon monoxide, oxides of nitrogen, carbon dioxide,

Reaction Products hydrogen gas, ammonia.

5. HEALTH HAZARD DATA

Routes of entry: Inhalation, ingestion, skin and eyes.

Effects of Exposure / Symptoms:

Harmful if swallowed. Can cause nervous system damage. May cause central, peripheral, and autonomic nervous system effects. Causes eye irritation. May cause skin sensitization. May cause cancer according to animal studies.

Emergency Treatment :

Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Skin: Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

LD50 (oral-rat) mg/kg: 565 mg/kg (Male); **STEL:** 0.6 mg/m³
490 mg/kg (Female)

LC50 (rat) mg/kg: **Odour Threshold:**

Permissible Exposure Limit: 0.3 mg/m³ **TLV (ACGIH) :** 0.03 mg/m³

NFPA Hazard	Health	Flammability	Reactivity	Special
Signals	2	2	2	

6. PREVENTIVE MEASURES

Personal Protective Equipment : Wear appropriate protective eyeglasses or chemical safety goggles.

Wear appropriate protective gloves to prevent skin exposure. Wear appropriate protective clothing to prevent skin exposure.

Handling : Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid contact with heat, sparks and flame. Do not ingest or inhale. Use with adequate ventilation.

Storage : 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.

Precautions :

7. EMERGENCY / FIRST AID MEASURES

FIRE:

Fire Extinguishing Media : Alcohol foam, dry chemical, or carbon dioxide.

Special Procedure : Do not extinguish fire unless flow can be stopped. Use water in flooding quantities as fog. Solid streams may be ineffective. Cool all affected containers with flooding quantities of water. Apply water

from as far a distance as possible

Unusual Hazards : Heating to decomposition evolves ammonia, hydrogen and carbon monoxide.

EXPOSURE: First Aid Measures:

Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Skin: Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Antidotes / Dosages:

SPILLS :

Steps To Be Taken : Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, using the appropriate protective equipment. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

Waste Disposal Method: Place in a plastic bag or on paper. Take outdoors. Add combustible solvent like alcohols. Burn in an open area.

8. ADDITIONAL INFORMATION / REFERENCES

Stable at room temperature but may polymerize violently on melting.

9. MANUFACTURERS / SUPPLIERS DATA

NAME OF FIRM :	Contact person
MAILING ADDRESS :	in Emergency :
TELEPHONE / TELEX NOS :	Local Bodies involved :
TELEGRAPHIC ADDRESS :	Standard Packing :
OTHERS :	Trem Card Details / Ref :

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