



# ETHYLENE CYANOHYDRIN

Other Names: 2-Cyanoethyl alcohol  
2-Cyanohydrin  
Glycol cyanohydrin  
Hydracrylonitrile  
3-Hydroxypropionitrile

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**Hazards:**

- Combustion and decomposition products upon heating include toxic hydrogen cyanide and nitrogen oxides
- Irritating to skin, eyes, nose and lungs
- Container may BLEVE when exposed to fire
- Vapors are heavier than air and will collect and stay in low areas
- May react with itself when heated blocking relief valves leading to container explosion

**Description:**

- Colorless to light yellow liquid
- No odor
- Soluble in water
- Flammable
- Vapors are heavier than air and will collect and stay in low areas

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**Operational Level Training Response:****RELEASE, NO FIRE:**

- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Ventilate confined area if it can be done without placing personnel at risk

**FIRE:**

- Approach fire with extreme caution because heated material releases highly toxic hydrogen cyanide. Material does not easily burn; fight surrounding fire with an agent appropriate for the burning material
- Cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of deforming), withdraw immediately to a secure location

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**Awareness and Operational Level Training****Response:**

- Stay upwind and uphill
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

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**First Aid:**

- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
  - ◆ Inhalation - remove the victim to fresh air and give oxygen if available
  - ◆ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
  - ◆ Eye - rinse eyes with large volumes of water or saline for 15 minutes
  - ◆ Swallowed - do not make the victim vomit
- Seek medical attention
- Toxic effects may be delayed
- Note to physician: fumes from heated material contain hydrogen cyanide; can produce cyanide toxicity - if symptoms indicate, initial treatment includes the cyanide antidote kit

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**CAS: 109-78-4**