



# HYDROGEN CYANIDE

(STABILIZED)

UN 1051

Shipping Name: Hydrogen cyanide, stabilized with less than 3 percent water

Other Names: AC Hydrocyanic acid solution

HCN Prussic acid

Hydrocyanic acid



- WARNING!**
- **POISON! BREATHING THE VAPORS OR SKIN CONTACT CAN KILL YOU!**
  - Firefighting gear (including SCBA) provides NO protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
  - **EXTREMELY FLAMMABLE!**

## Hazards:

- Odor is not a reliable indicator of the presence of toxic amounts of vapor
- May react with itself without warning with explosive violence
- Container may BLEVE or explode when exposed to fire
- Vapors may travel long distances to ignition sources and flashback
- Vapors in confined areas (e.g., tanks, sewers, buildings) may explode when exposed to fire
- Vapors are slightly lighter than air but will collect and stay in low areas
- Combustion products are less toxic than the material itself

## Awareness and Operational Level Training

### Response:

- **DO NOT ATTEMPT RESCUE!**
- Stay upwind and uphill
- Determine the extent of the problem
- **BACK OFF!** - Isolate a wide area around the release or fire, deny entry and call for expert help
- Remove all ignition sources
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE or explosion
- Evacuate the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

## Description:

- Colorless liquid that boils at 78° F
- Sweet odor like bitter almonds; many people cannot smell it
- Dissolves slowly in water but is soluble in water
- Extremely flammable
- Vapors are slightly lighter than air but will collect and stay in low areas
- Transported in red and white candy striped containers
- Produces large amounts of vapor
- Freezes at 8° F

## Operational Level Training Response:

### RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Use large amounts of water well away from the material to disperse vapors - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk

### FIRE:

- If material is on fire and conditions permit, **DO NOT EXTINGUISH**; combustion products are less toxic than the original material. Cool exposures using unattended monitors.
- Specially trained personnel operating from a safe distance can fight fires using alcohol resistant (AFFF) foam or dry chemical if available in sufficient amounts. Under favorable conditions, experienced crews can use coordinated fog streams to sweep the flames off the surface of the burning liquid. Do not direct straight streams into the liquid.
- 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 (unvented container distorts, bulges or shows any other signs of expanding), withdraw immediately to a secure location

## First Aid:

- **DO NOT ATTEMPT RESCUE!**
- The contaminated victim poses a health risk to the responder
- Decontaminate the victim from a safe distance with a stream of water; have the victim remove clothing if possible; 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
- Victims should be examined by a physician as soon as possible
- Toxic effects may be delayed
- **Do NOT perform direct mouth to mouth resuscitation; use a bag/mask apparatus**
- Note to physician: can produce cyanide toxicity; if symptoms indicate, initial treatment includes the cyanide antidote kit

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