



BIS(2-CHLOROETHYL) SULFIDE

Other Names: Distilled mustard Mustard HD
H Sulfur mustard
HD Yperite
Mustard gas

WARNING! • **POISON! BREATHING THE VAPOR, OR SWALLOWING THE MATERIAL CAN KILL YOU! SKIN AND EYE CONTACT CAUSES SEVERE BURNS AND BLINDNESS!**
• Fire fighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel

Hazards:

- Odor is not a reliable indicator of the presence of toxic amounts of vapor
- Container may BLEVE or explode when exposed to fire
- Vapors are heavier than air and will collect and stay in low areas
- Combustion products include toxic hydrogen chloride and sulfur oxides
- Known to cause cancer in humans following long term exposure; contact should be avoided

Awareness and Operational Level Training

Response:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Stay uphill and upwind
- 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 or explosion
- Evacuate or shelter in place 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 or amber to black oily liquid
- Weak sweet odor like garlic or horseradish
- Reacts with water to form toxic materials; sinks in water and is slightly soluble in water
- Flammable
- Vapors are heavier than air and will collect and stay in low areas
- Forms yellow crystals on cooling; becomes a yellow solid below 57° F
- Used as a blister type war gas

Operational Level Training Response:

RELEASE, NO FIRE:

- BACK OFF! - Isolate a wide area around the release and call for expert help
- If in a building, evacuate building and confine vapors by closing doors and shutting down HVAC systems

FIRE:

- Specially trained personnel operating from a safe distance can fight fires using 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. Keep exposures cool to protect against re-ignition. 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
- Use unattended equipment whenever possible

First Aid:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- 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
- Further 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
- Do NOT perform direct mouth to mouth resuscitation; use a bag/mask apparatus
- Victims should be examined by a physician as soon as possible
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

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