



BORON TRICHLORIDE

UN 1741

Shipping Name: Boron trichloride
Other Names: Boron chloride
Trichloroborane
Trichloroboron



- WARNING!**
- **POISON! BREATHING THE GAS CAN KILL YOU! PROLONGED SKIN CONTACT CAN CAUSE SEVERE BURNS OR BLINDNESS!**
 - Fire fighting gear (including SCBA) provides **NO** protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
 - **DO NOT USE WATER! REACTS VIGOROUSLY WITH WATER TO FORM TOXIC HYDROGEN CHLORIDE**

Hazards:

- Severely irritating to nose and lungs
- Container may explode when exposed to fire
- Odor is not a reliable indicator of the presence of toxic amounts of gas
- Gas is heavier than air and will collect and stay in low areas
- Contact with liquid can cause frostbite
- Decomposition products upon heating include toxic hydrogen chloride

Awareness and Operational Level Training

Response:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Stay upwind and uphill
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- Container may BLEVE or explode when exposed to fire
- 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 gas or liquid
- Shipped and stored as a compressed liquefied gas
- Sharp, choking acrid odor
- Reacts vigorously with water to produce hydrochloric acid
- Nonflammable
- Gas is heavier than air and will collect and stay in low areas
- Liquid boils at 54° F

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
- Use large amounts of water well away from the release to disperse gas - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk
- If in a building, evacuate building and confine vapors by closing doors and shutting down HVAC systems

FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material - **DO NOT ALLOW WATER TO COME IN CONTACT WITH MATERIAL**
- If material is not leaking, 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 put yourself in danger by entering a contaminated area to rescue a victim**
- 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
- Frostbite - warm injured area in very warm water
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

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