



SILICON CHLORIDE

UN 1818

Shipping Name: Silicon tetrachloride

Other Names: Tetrachlorosilane



- WARNING!** • **POISON! BREATHING THE VAPORS CAN KILL YOU! SKIN AND EYE CONTACT CAUSES SEVERE BURNS AND BLINDNESS!**
- Firefighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
 - **DO NOT USE WATER! REACTS VIOLENTLY WITH WATER TO FORM TOXIC HYDROGEN CHLORIDE!**

Hazards:

- Vapors are heavier than air and will collect and stay in low areas
- Container may BLEVE when exposed to fire
- Decomposition products upon heating include toxic hydrogen chloride
- In the presence of moisture is corrosive to most metals

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
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- 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 fuming liquid
- Suffocating odor
- Sinks in water and reacts violently with water to produce silicic acid and hydrochloric acid; is insoluble in water
- Nonflammable
- Vapors are heavier than air and will collect and stay in low areas
- Produces large volumes of vapor

Operational Level Training Response:

RELEASE, NO FIRE:

- Do not use water directly on the material; material reacts violently with water to produce toxic hydrochloric acid
- 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 release
- 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
- If in a building, evacuate building and confine vapors by closing doors and shutting down HVAC systems

FIRE:

- Do not allow water to come in contact with the material; Material does not burn; fight surrounding fire with an agent appropriate for the burning material; if material is involved in a fire, use dry chemical to extinguish, if water must be used, use it in flooding quantities
- 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 sign 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
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

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