



CARBONYL FLUORIDE

UN 2417

Shipping Name: Carbonyl fluoride

Other Names: Carbon difluoride

Carbonic difluoride oxide

Carbon oxyfluoride

Fluorophosgene



- WARNING!** • **POISON! BREATHING THE GAS CAN KILL YOU! SKIN AND EYE CONTACT CAN CAUSE SEVERE BURNS AND BLINDNESS!**
- Fire fighting gear (including SCBA) provides NO 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 gas
- Extremely irritating to nose and lungs
- Contact with liquid may cause frostbite
- Gas is heavier than air and will collect and stay in low areas
- Container may explode or BLEVE when exposed to fire
- Decomposition products upon heating include toxic carbon monoxide and hydrogen fluoride
- Reacts with water releasing toxic hydrogen fluoride

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 and call for expert help
- 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

Description:

- Colorless compressed gas or cryogenic liquid
- Slightly pungent odor, nearly odorless
- Decomposes in water to form toxic hydrofluoric acid
- Nonflammable
- Gas is heavier than air and will collect and stay in low areas

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Use large amounts of water to disperse gas - contain runoff which may contain toxic hydrofluoric acid
- 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 APPLY WATER TO CRYOGENIC LIQUID CONTAINERS;** if cryogenic liquid containers are exposed to direct flame or elevated temperatures for prolonged times, withdraw immediately to a secure location
- 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 cylinders are exposed to excessive heat from fire or flame contact, 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
- **Do not perform mouth to mouth resuscitation; use a bag/mask apparatus**
- 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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