

Chlorine

CAS RN: 7782-50-5

WMD Response Guidelines

Choking Agents (Pulmonary)

Guide 20

Example: **Phosgene (CG), Chlorine (Cl)**

SIGNS AND SYMPTOMS

- | Nausea
- | Vomiting
- | Coughing
- | Choking
- | Chest Tightness
- | Delayed Pulmonary Edema
- | Odors of Chlorine, Bleach, Swimming Pools, or Newly Mown Hay or Grass

CHARACTERISTICS

- | **Phosgene**
 - | Boiling Point: 45.6°F
 - | Vapor Density (Air=1): 3.42
 - | Specific Gravity (H2O=1): 1.38
- | **Chlorine**
 - | Boiling Point: --20°F
 - | Vapor Density (Air=1): 2.5
 - | Specific Gravity (H2O=1): 1.46

INDICATORS

- | Dead Animals
- | Lack of Insect Life
- | Mass Casualties
- | Definite Pattern of Casualties
- | Casualty Patterns Differentiated by Indoor/Outdoor Location
- | Unusual Liquid Droplets
- | Areas That Look Different in Appearance
- | Unexplained Odors
- | Low Lying Clouds
- | Unusual Metal Debris

ROUTES OF EXPOSURE

- | Inhalation

EMERGENCY RESPONSE

- | Approach from Upwind, Uphill, or Upstream
- | Isolate Immediate Area in all directions distance of 400-1100 feet
- | Keep Unauthorized Persons Away
- | Consider Immediate All Direction Evacuation Distance of 1 Mile during the day
- | Consider Immediate Downwind Evacuation For a **SMALL SPILL DAY of .4 Miles or 1.7 Miles NIGHT, or LARGE SPILL DAY of 1.4 Miles or NIGHT of 6.2 Miles (SMALL = < 55 Gallons, LARGE = > 55 Gallons)**
- | Stay Upwind
- | Make Notifications, Obtain Immediate Medical Treatment

TYPE OF HARM

- | Chemical
- | Possible Thermal
- | Possible Asphyxiation
- | Possible Mechanical

PERSONAL PROTECTION

- | **Time:** Keep Exposure and Product Contact to Minimum
- | **Distance:** Stay 400 and 1100 feet away on Upwind Side
- | **Shielding:** Chemical Protective Clothing

Content reproduced for WISER with permission from the Louisiana State University and A&M College, National Center for Biomedical Research and Training, Academy of Counter-Terrorist Education. *WMD Response Guidebook* ©. Further reproduction prohibited.

Printed by WISER for Windows (Version 4.5.191, Database Version 4.5.67)
HHS/NIH, National Library of Medicine

Printed by WISER for Windows (Version 4.5.191, Database Version 4.5.67)
HHS/NIH, National Library of Medicine