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Gaseous Chlorine Awareness		Revision Date:	3/28/2019
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General

Exposure to chlorine is irritating to the eyes, nose, throat, and mucous membranes. At high levels, exposure could cause serious injury or death. Chlorine gas is greenish-yellow and smells like bleach. It is highly corrosive and reacts violently with petroleum products such as gasoline, diesel, oil, solvents, and turpentine. Chlorine can also react with carbon monoxide and other combustion products to make highly toxic and corrosive gases. Chlorine gas weighs about 2.5 times more than air and will settle in low-lying areas unless there is sufficient wind to disperse it. Despite these hazards, proper training can help reduce the risk for those who handle it. This publication is not a substitute for formal training. It does discuss chlorine handling and safety practices.

Emergency Help

Make a list of all relevant contact numbers and keep it posted at several locations in your work area. This list will be particularly important if you don't have 9-1-1 service in your area. Keep the numbers updated. You should review your emergency egress plans from areas where there might be a chlorine or other gaseous release. Taking short cuts could be deadly.

Chlorine First Aid

Inhalation

- Remove victim from contaminated area.
- Keep victim warm, in a reclining position with head and shoulders elevated.
- Give artificial respiration, if necessary.
- Administer oxygen as soon as possible.
- Call a physician immediately.

Skin Contact

- Shower victim, removing all contaminated clothing.
- Wash affected area with soap and water.

Eye Contact

- Irrigate eyes with water for 15 minutes, holding eyelids wide apart.
- Call a physician immediately.
- Irrigate a second 15-minute period if physician is not immediately available.

Health Effects

- Low concentrations: Burning eyes, nose and throat; redness in the face; sneezing and coughing.
- High concentrations: Tightness in the throat and difficulty breathing.
- 1,000 parts per million (ppm) is fatal after a few breaths.
- Even an hour later, 35-51 ppm can be fatal.

Additional Resources

National Institute for Occupational Safety and Health (NIOSH) Find chlorine resources online at <http://www.cdc.gov/niosh/topics/chlorine/> NIOSH, Centers for Disease Control and Prevention, 1600 Clifton Rd., Atlanta, GA 30333. Phone (800) CDC-INFO (800-232-4636), TTY: (888) 232-6348, 24-hours a day, e-mail cdcinfo@cdc.gov

