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Chlorine Gas Safety

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Supervising Safety Newsletter

At IPSC there are several bulk chemicals on site. Knowing how to work with and around these chemicals is paramount to ensuring a safe and healthy working environment for everyone.

One of these chemicals that is highly regulated and of great concern is chlorine.

What is Chlorine

- A greenish-yellow gas.
- It has a sharp penetrating odor (similar to bleach).
- It is unstable and reacts with water to form acids.
- 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.
- 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.

Exposure to chlorine can cause the following:

- Eye irritation, redness, and possible blindness
- Skin irritation, burns, and blisters
- Headache, coughing, nausea, chest pains, vomiting, and unconsciousness.
- At high levels, exposure could cause serious injury or death.

Required PPE When Working With Chlorine

- Eye protection: Splash proof chemical goggles
- Gloves: Nonporous rubber or plastic gloves
- Boots: Hard toe, leather above the ankle
- Respiratory: Self Contained Breathing Apparatus (SCBA)

Procedures to Follow

- DON'T work alone. Use the buddy system.

- Know where the eye wash/safety shower is, verify that it works, and ensure that the pathway to it is clear and unobstructed.
- Know what to do in case of an emergency. Call 2911 from a plant phone, 435-864-2911 from a cell phone, or use channel 1 on the radio to get help.

Chlorine First Aid

- Remove victim from contaminated area.
- Shower victim, removing all contaminated clothing.
- Wash affected area with soap and water.
- Irrigate eyes with water for 15 minutes holding eyelids wide apart.
- Keep victim warm, in a reclining position with head and shoulders elevated.
- Administer oxygen as soon as possible.
- Give artificial respiration, if necessary.
- Call for advanced medical care.

Despite all the hazards that are associated with chlorine, it can be worked with safely. Through proper training, respect, and awareness, the risk of working with and handling chlorine is greatly reduced.

