

Toolbox Talk Carbon Monoxide

Overview

Carbon monoxide is a clear, odorless gas which is created by inefficient combustion emissions. The most common sources in industry are gasoline or diesel powered pressure washers, air compressors, forklifts or other petroleum fired machinery.

The chemical makeup of CO is a carbon molecule linked to an oxygen molecule. Carbon monoxide kills by binding up the hemoglobin in the blood. Since CO has an affinity for hemoglobin several hundreds of times greater than the oxygen that is ever present, that being about 200,000 parts per million in normal air. Therefore it takes only a small amount of CO to bind up a large amount of hemoglobin. This decreases the amount of oxygen delivered to the tissues and without oxygen, you will slowly suffocate to death.

What does this mean for workers? Carbon Monoxide will affect workers as follows:

- Slight headache and dizziness
- Nausea
- Drowsiness and an euphoric feeling
- Unconsciousness
- Death

Signs and Symptoms of Exposure

Acute exposure: Signs and symptoms may include headache, flushing, nausea, vertigo, weakness, irritability, unconsciousness, and in persons with pre-existing heart disease and atherosclerosis, chest pain and leg pain.

Chronic exposure: Repeated bouts of carbon monoxide poisoning may cause persistent signs and symptoms, such as anorexia, headache, lassitude, dizziness, and ataxia.