

The Importance of Hydrogen Sulfide Safety in Confined Space

Working in the sewer industry exposes workers to many hazards, one of which is Hydrogen Sulfide (H₂S). Exposure to H₂S is one of the top causes of death in our industry.

To save lives, it's important to know that Hydrogen Sulfide smells like rotten eggs, making it a great early warning sign. Did you know you can detect the smell at as little as 0.5 PPM? Your meter is set to alarm at 10 PPM, so you may smell it before your meter warns you. The problem with this is that the higher the levels the faster we get olfactory gland overload and no longer recognize the smell. It is because of the loss of smell, as with any gasses, that air monitoring is required for a confined space entry.

The air that we breathe is made up of about 78% Nitrogen, 20.9% Oxygen and other gasses. Your body and brain need the Oxygen, so it takes it from the air that we breathe. Unfortunately, when exposed to H₂S, your body will actually absorb Hydrogen Sulfide over Oxygen – it is referred to as a chemical asphyxiate. This can be very serious since such a small percent of the air being H₂S can impair and even kill you. The safe levels set by OSHA for the permissible exposure limit is only 10 PPM for an 8-hour day. The effects based on the PPM can be seen by [clicking here](#) - with instant death in as little as a few breaths at only 1000 PPM – H₂S exposure is a very serious concern. To illustrate just how potent H₂S is, at 1000 PPM, it is just one tenth of 1% (0.1%). There is usually plenty of Oxygen in the air, but because your body absorbs the H₂S, you can still die from a chemical asphyxiation.

H₂S is a very real danger, so always follow proper confined space entry procedures, including air monitoring prior to any sewer entry. That said, you should always respect the dangers of any confined space entry. Be sure to spend the small amount of time required to test the atmosphere – it just may save your life!