

## H2S Alive Vancouver

H2S Alive Kelowna - H<sub>2</sub>S is the formula for a chemical compound called hydrogen sulfide. Hydrogen sulfide has the characteristic foul odor of rotten eggs and is a colorless, flammable and really poisonous gas. The smell is due to the breakdown of bacteria of organic matter which is in the absence of oxygen, such, as in swamps and sewer. This particular process is called anaerobic digestion. This process with hydrogen sulfide occurs in some well waters, natural gas and also in volcanic gases. The human body utilizes H<sub>2</sub>S as a signaling molecule and produces small amounts.

A mixture of air and H<sub>2</sub>S is actually explosive, because hydrogen sulfide is slightly heavier than air. Hydrogen sulfide and oxygen burns with a blue flame and becomes water and sulfur dioxide or SO<sub>2</sub>. Usually, in chemical reactions, H<sub>2</sub>S acts as a reducing agent.

Sulfur dioxide, at high temperature or with the presence of catalysts, could form water and elemental sulfur when it reacts with hydrogen sulfide. This procedure is defined in the Claus procedure that is the most common way to convert H<sub>2</sub>S into elemental sulfur.

In water, hydrogen sulfide is somewhat soluble. It acts as a weak acid and therefore gives the hydrosulfide ion "HS<sup>-</sup>." Sulfhydic acid or Hydrosulfuric acid is a solution of hydrogen sulfide in water. Initially, this type of solution is initially clear but turns cloudy as time passes. This is caused by the slow reaction of hydrogen sulfide with the oxygen dissolved in water. This kind of reaction yields elemental sulfur that precipitates out. The sulfide dianion S<sup>2-</sup> exists just in strong alkaline aqueous solutions. Normally this substance is basic with a pK<sub>a</sub>>14.

Metal sulfides, which may be considered the salts of hydrogen sulfide, are formed when metal ions reacts with hydrogen sulfide. For case, some ores are sulfides. Usually, metal sulfides are dark colored. Lead II acetate paper is used in the detection of hydrogen sulfide. In the presence of the gas it turns grey when lead II sulfide is formed. Hydrogen sulfide is liberated by reacting strong acid with metal sulfides.

It is important to recognize that if gaseous hydrogen sulfide comes into contact with concentrated nitric acid, an explosion happens. Additionally, when hydrogen sulfide reacts with alcohols, it forms thiols.