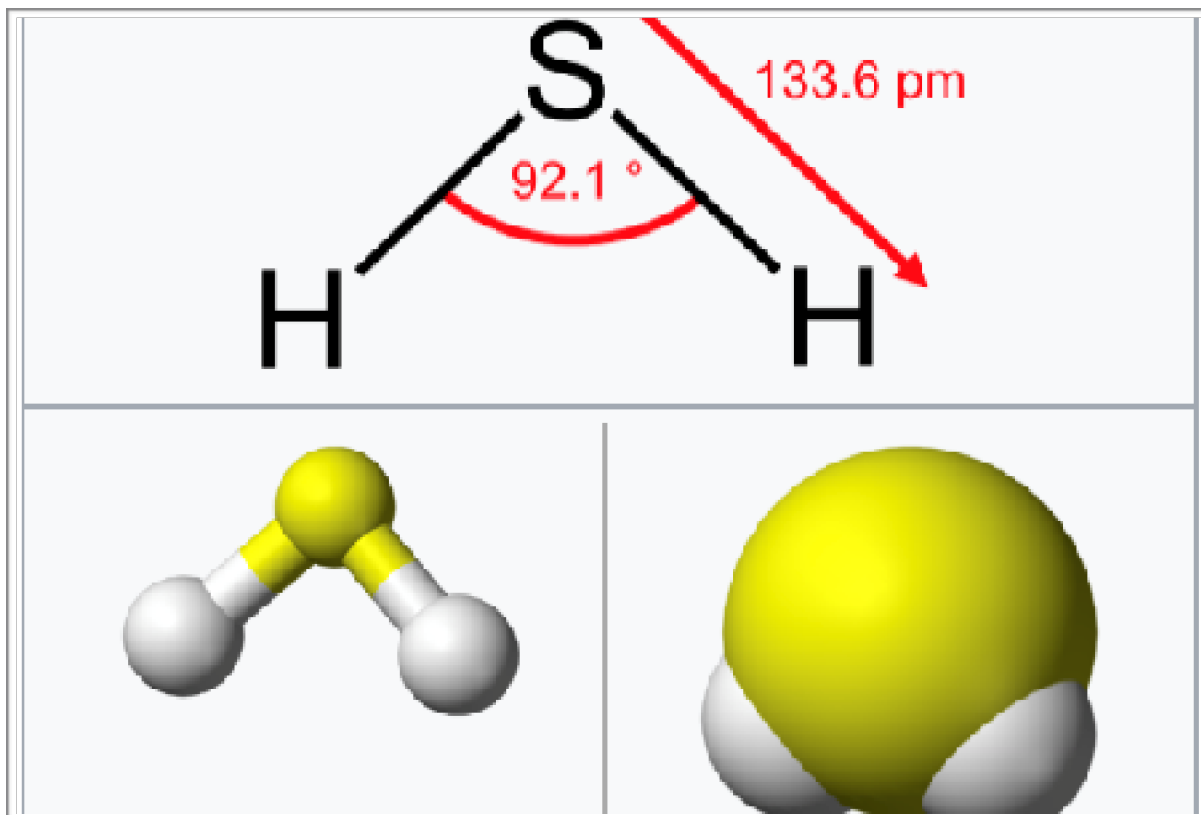


## H<sub>2</sub>S REMEDIATION PROTOCOL



ERGOFITO NATURAL SOLUTION

2017

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## **PREAMBLE:**

Hydrogen sulfide is the chemical compound with the formula H<sub>2</sub>S. It is a colorless gas with the characteristic foul odor of rotten eggs. It is very poisonous, corrosive, and flammable.

Hydrogen sulfide often results from the microbial breakdown of organic matter in the absence of oxygen gas, such as in swamps and sewers; this process is commonly known as anaerobic digestion. H<sub>2</sub>S also occurs in volcanic gases, natural gas, and in some sources of well water. The human body produces small amounts of H<sub>2</sub>S and uses it as a signaling molecule.

H<sub>2</sub>S gas is one of the most dangerous gases encountered in drilling operations. It is toxic, corrosive, and flammable, posing a serious threat to the health and safety of your workers, equipment, and the environment. Exposure to H<sub>2</sub>S gas can lead to various symptoms ranging from eye and throat irritation, nausea, dizziness, unconsciousness to death.

Swedish chemist Carl Wilhelm Scheele is credited with having discovered hydrogen sulfide in 1777.

## **H<sub>2</sub>S IN AIR TESTING PROTOCOL:**

It is necessary to assure contact between the H<sub>2</sub>S gas and vaporized Ergofito and water mix. The mix ratio of water and Ergofito H<sub>2</sub>S Metaboliser is 1:100, for every 1Kg of Ergofito H<sub>2</sub>S Metaboliser, we require 100 litres of water. Mix both well, the mix is now ready to be used.

The application between H<sub>2</sub>S and the above mentioned mix needs to be vaporized by means of a low pressure sprayer or a scrubber. For a simple test a hand spray bottle can be used. H<sub>2</sub>S elimination will be within seconds, in order to work out the mix volume required, we recommend a guiding formula of 100 grams of H<sub>2</sub>S to 100 grams of Ergofito/water mix.

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### **H2S IN WATER TESTING PROTOCOL:**

Place the H<sub>2</sub>S contaminated water in a vat. Add aeration to ensure that Dissolved Oxygen level is at 3mg/L or above. Apply pure Ergofito H<sub>2</sub>S Metaboliser at a guiding formula of 10 grams of Ergofito H<sub>2</sub>S Metaboliser per 50 litres of water. As at this point the H<sub>2</sub>S level is unknown so only the above guideline can be given.

It is recommended to use an electronic instrument to measure the H<sub>2</sub>S abatement as if a standard test kit is used, additional discoloration brought in by Ergofito H<sub>2</sub>S Metaboliser will affect the reading as Ergofito is black and will darken the water, hence falsify the test. The H<sub>2</sub>S odour will disappear within seconds of Ergofito application, proving that remediation has occurred.

### **H2S IN WATER AND AIR COMBINED:**

When a container receives H<sub>2</sub>S contaminated water, it emanates a large amount of H<sub>2</sub>S in the air. It is then desirable to treat the water and eliminate all emanations at the same time. In this case we apply the H<sub>2</sub>S air application while ensuring that all sprayed Ergofito and water mix is absorbed by the vat containing the H<sub>2</sub>S contaminated water. basically we need to apply to product like a scrubber with no recirculation.

### **CONCLUSION:**

Ergofito H<sub>2</sub>S Metaboliser is able to eliminate H<sub>2</sub>S biologically. A natural transformation occurs whereas amino acids and proteins are produced via Ergofito. Any testing where colour chart comparison is used will not reflect the correct levels due to the dark colour of Ergofito.

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