



Solving Hydrogen Sulfide with WASTE GO

Don't let hydrogen sulfide destroy your equipment!

The Problem

Hydrogen Sulfide is a highly corrosive gas. Anything that comes into contact with it will deteriorate, except plastic. Given enough time, it will destroy concrete regardless of thickness. As a result, this gas is devastating to pipes and equipment. Replacing pipes and equipment is costly and does not solve the problem. Unless one prevents formation of the gas, hydrogen sulfide will begin eating the replacement pipes/equipment from the day it is installed.

Where does it come from?

Hydrogen Sulfide is actually produced in collection systems. Waste and therefore waste water always contains micro-organisms. Like all living things, they must eat to survive. The volatile organics in the waste serve as food for these 'bugs'. ALL micro-organisms produce gas as a byproduct of digesting food. There are many different kinds of microbes; some produce CO₂ while others produce methane. Some produce hydrogen sulfide when conditions are right.

How is it produced?

The organisms that produce hydrogen sulfide are anaerobic. That is, they only thrive when the amount of oxygen in their environment drops below a certain level. Examples of where this might occur in collection systems are: force mains during periods of low/no flow, gravity lines with long stretches between lift stations or when there is buildup in the pipes.

When an anaerobic condition occurs, these organisms become active and hungry. If certain Sulphur containing amino acids are available as food during that time, the bugs will eat them and subsequently produce sulfide gas.

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How do you solve the problem?

Our approach is to prevent the gas from forming in the first place. First, we blend high potency enzymes with specially selected, natural microbes that are not native to the domestic waste stream. The enzymes immediately begin breaking down the volatile organics. This process makes the waste dramatically more digestible for the bacteria. In addition, our microbes are chosen for their ability to eat waste faster than native organisms. By introducing WASTE GO as far upstream as possible, it will have digested a large amount of the organic waste before it arrives at the problem area(s). Dramatically reducing the amount of sulfur containing amino acids before the waste turns anaerobic, results in a dramatic reduction in the production of sulfide gas.

This method also has additional benefits beyond sulfide gas reduction. By predigesting grease and other volatile organics, we are effectively cleaning both pipes and lift stations. This results in reduced odor and also cost savings due to less maintenance/repair/replacement. Treatment Plants also benefit in operation due to receiving waste that has been pre-inoculated with enzymes and microbes that are significantly superior to the native bacteria.