

Safety and Health - OSHA - Hydrogen Sulfide

<https://www.osha.gov/SLTC/hydrogensulfide/index.html>

Hydrogen sulfide (also known as H₂S, sewer gas, swamp gas, stink damp, and sour damp) is a colorless gas known for its pungent "rotten egg" odor at low concentrations. It is extremely flammable and highly toxic.

Hydrogen Sulfide Hazards - OSHA

<https://www.osha.gov/SLTC/hydrogensulfide/hazards.html>

Hydrogen sulfide gas causes a wide range of health effects. Workers are primarily exposed to hydrogen sulfide by breathing it. The effects depend on how much hydrogen sulfide you breathe and for how long. Exposure to very high concentrations can quickly lead to death.

Gypsum bedding: Is it worth the manure safety risk?

http://www.progressivedairy.com/index.php?option=com_content&id=12719:gypsum-bedding-is-it-worth-the-manure-safety-risk

Recent deaths of farmers and cattle have raised awareness of the all-too-common dangers of working around manure storage facilities. People "being overcome" or feeling dizzy around manure storage areas happens too often. Headlines often list the reason as asphyxiation or toxic gas. Many times, the toxic gas is hydrogen sulfide, with most deaths associated with below-ground, enclosed storages. More recent investigations indicate that hydrogen sulfide is also present in outdoor open storages, particularly on dairy farms where gypsum is used as bedding material.

Penn State Extension Link on the Safety Risk from Manure Storages of Dairy Cows Bedded with Gypsum

<http://extension.psu.edu/animals/dairy/health/facilities/safety-risk-from-manure-storages-of-dairy-cows-bedded-with-gypsum>

Human and cattle deaths have prompted investigation into what is causing dangerous conditions during otherwise routine manure handling procedures on farms. This brochure provides background and findings from on-farm monitoring of dairies using gypsum as stall bedding where a link has been found to highly toxic levels of hydrogen sulfide gas during manure movement and agitation.

Oregon Health & Science University - Confined Space Entry Procedures

<http://www.ohsu.edu/xd/about/services/integrity/policies/upload/confinedspacepolicy.pdf>

This policy establishes the OHSU Confined Space Program. The policy is designed to instruct employees and advise contractors on confined space entry procedures as required by Occupational Safety and Health Administration (OSHA) regulations, 29 CFR 1910.146.