

H₂S Hydrogen Sulfide



About Hydrogen Sulfide

Hydrogen Sulfide is a highly toxic and corrosive gas with a bad smell. H₂S is a product of biogenous digestion. It can be found in raffineries, blast furnances, pulp and paper industry, gasworks, coking-, wastewater treatment- and biogas plants.

Sources: WHO Regional Publications, European Series, No. 91, „Air quality guidelines for Europe“, 2nd edition, 2000; GESTIS Stoffdatenbank (<http://www.hvbg.de/d/bia/fac/stoffdb/index.html>); U.S. Environmental Protection Agency (www.epa.gov)



Health and Environmental Effects

H₂S destroys haemoglobin and paralyzes the intracellular respiration. In contact to humidity at mucous membranes it converts to alkaline sulfides causing heavy irritation in eyes, nose, throat and lung. H₂S is neurotoxic.

The bad smell of H₂S is unbearable. The lower limit of detection by humans may be as low as 2 ppb. Because of its acidity H₂S is a very corrosive gas. It damages switchpanels and other electronics in the plants.

Hydrogen Sulfide and the airpointer®

Measurement Principle: Thermally Conversion, Ultraviolet Fluorescence

H₂S / SO₂ converter, Ultraviolet fluorescence

SO₂ is scrubbed from the sample gas. H₂S is thermally converted to SO₂ and measured by UV-fluorescence. (Details about SO₂ measurement see SO₂ leaflet.) Equipped with an H₂S-module the airpointer® is capable to measure H₂S only, SO₂ only or both cycling with a minimum switching time of 5 minutes

Component	Measurement Principle	Range	Units	Lower Detectable Limit	Zero Drift	Span Drift
Hydrogen Sulfide (H ₂ S)	Ultraviolet Fluorescence	Dynamic range up to 5 ppm	ppb, ppm, mg/m ³ , µg/m ³	< 1.0 ppb	< 1.0 ppb/24 hours, 2.0 ppb/7 days	< 1.0 % of reading/24 hours < 2.0 % of reading/7 days



SYSTEM CERTIFIED
ISO 9001:2000 NO. 3977/0
ISO 14001 NO. 395/0

Patents Pending

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