Hydrogen sulfide

IDLH Documentation

CAS number: 7783064

NIOSH REL: 10 ppm (15 mg/m^3) 10minute CEILING

Current OSHA PEL: 20 ppm CEILING, 50 ppm 10minute MAXIMUM PEAK

1989 OSHA PEL: 10 ppm (14 mg/m^3) TWA, 15 ppm (21 mg/m^3) STEL

1993-1994 ACGIH TLV: 10 ppm (14 mg/m^3) TWA, 15 ppm (21 mg/m^3) STEL

Description of Substance: Colorless gas with a strong odor of rotten eggs.

LEL:. . 4.0% (10% LEL, 4,000 ppm)

Original (SCP) IDLH: 300 ppm

Basis for original (SCP) IDLH: The chosen IDLH is based on the statements by Patty [1963] that 170 to 300 ppm is the maximum concentration that can be endured for 1 hour without serious consequences; 400 to 700 ppm is dangerous after exposure of 0.5 to 1 hour [Henderson and Haggard 1943]. AIHA [1963] reported that 400 to 700 ppm caused loss of consciousness and possible death in 0.5 to 1 hour [MCA 1950].

Existing short-term exposure guidelines: 1991 American Industrial Hygiene Association (AIHA) Emergency Response Planning Guidelines (ERPGs):

ERPG1: 0.1 ppm (60minute)

ERPG2: 30 ppm (60minute)

ERPG3: 100 ppm (60minute)

National Research Council [NRC 1985] Emergency Exposure Guidance Levels (EEGLs):

10minute EEGL: 50 ppm

24hour EEGL: 10 ppm

ACUTE TOXICITY DATA:

Lethal concentration data:

13.

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