

Comparison between regulatory limits of hydrogen sulphide in $\mu\text{g}/\text{m}^3$ and ppm

Under Regulation no. 514/2010 regarding the Concentration of Hydrogen Sulphide in the Atmosphere, environmental limits are set at $50 \mu\text{g}/\text{m}^3$, based on the maximum daily running 24-hour average. The concentrations may exceed those limits three times per annum. Other environmental limits are that the maximum annual average shall be $5 \mu\text{g}/\text{m}^3$ and the environmental authorities shall be notified when the concentration measured exceeds $150 \mu\text{g}/\text{m}^3$ for three consecutive hours. Regulation no. 514/2010 does not apply to the industrial areas of the Hellisheidi and Nesjavellir geothermal power plants. There Regulation no. 390/2009 on Pollution Limits and Methods to Reduce Pollution in Workplaces applies. The pollution limit in a work environment is $7,000 \mu\text{g}/\text{m}^3$ and depends on the average of an eight-hour workday, and $14,000 \mu\text{g}/\text{m}^3$ when based on the average over a 15-minute period.

$\mu\text{g}/\text{m}^3$	ppm	Comments
5	0.0039	Maximum annual average
7-15	0.0054 – 0.012	Odour threshold
50	0.039	Maximum daily average
150	0.12	Notification limitis (three continuous hours)
7,000	5.41	Limit in a work environment for an eight-hour workday
14,000	10.8	Limit in a work environment for a fifteen-minute period
>14,000	>10.8	Irritation in airway, sense of smell fades and other symptoms. GET OUT OF THE SITUATION.