



## Gas Detection in Industrial Processing Applications

Whether used in specific processes or are byproducts of processes, various combustible and toxic gases are found within industrial processing facilities and applications.

In nature, many gases are both combustible and toxic. Some of the gases that may be produced and emitted in industrial processing applications include hydrogen and other hydrocarbons, ammonia, chlorine, hydrogen sulfide, carbon monoxide, and nitrogen dioxide.

Hydrogen is a colorless, odorless non-toxic gas that is ranked highest on the NFPA's flammability scale due to its combustible nature when mixed with small amounts of air. Chlorine, though not flammable alone, can react explosively or form explosive compounds with other chemicals, such as turpentine and ammonia.

Low concentrations of toxic gases in parts per million, such as ammonia and chlorine, can trigger coughing and nose and throat irritation, while high concentrations can cause immediate burning of the eyes, nose, throat, and respiratory tract. Long-term effects of toxic gases may include blindness, lung damage and death.

Gas detection equipment does not only have the ability to detect leaking combustible or toxic gases but also mitigate risk through action. Because industrial processes occur in such high-risk environments, gas detection implementation within these facilities is essential to reduce personnel exposure and mitigate risk in all areas where these gases could create a workplace hazard for life safety.

Otis Instruments offers a variety of wired and WireFree easy-to-use, robust and configurable gas detectors capable of detecting both toxic and non-toxic gases within industrial processing applications. In addition, we offer high-performance flame detectors for the detection of combustible gases and flames in dangerous environments.

To learn more about our gas detection solutions for industrial processing applications, contact Otis Instruments today.