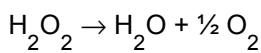


## Applications of Hydrogen Peroxide

### Hydrogen Peroxide for Environmental Applications

Hydrogen peroxide is a strong oxidizing agent, and can oxidize most organic as well as many inorganic substances. In contrast to many other oxidizing agents, hydrogen peroxide introduces no additional or interfering substances other than water into the reaction system. With very strong oxidizers e.g. hypochlorite or permanganate hydrogen peroxide reacts as a reducing agent forming oxygen as a by-product.

Both types of reaction, the „oxidation“ as well as the „reduction“ are used in environmental applications of hydrogen peroxide. There is a wide range of processes for the treatment of wastewater, off-gas, ground water and waste. Excess hydrogen peroxide not required for the reaction can be easily decomposed to water and oxygen, thus makes hydrogen peroxide an environmental friendly product.



Environmental problems which can be solved with  $\text{H}_2\text{O}_2$  are:

- BOD / COD / TOC Reduction
- Cyanide Removal
- Dechlorination
- Sulfide Odor and Corrosion Control
- NO<sub>x</sub> Prevention
- Oxidation of Inorganic Sulfur Compounds
- Alkaline Off-gas Scrubbing
- Off-gas Desulfurization

Leaflets for these applications are available on request.

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