Safety (MSDS) data for hydrogen peroxide, 3% aqueous solution

Click here for data on dilute hydrogen peroxide in student-friendly format, from the HSci project

General

Synonyms: dilute hydrogen peroxide (3 per cent)
Use: biochemical reagent
Molecular formula: $\text{H}_2\text{O}_2$, 3% in water

CAS No: 7722-84-1 (pure hydrogen peroxide)
EINECS No: 231-765-0 (pure hydrogen peroxide)
EC Index No: 008-003-00-9

Physical data

Appearance: colourless liquid
Melting point:
Boiling point:
Vapour density:
Vapour pressure:
Density ($\text{g cm}^{-3}$): close to 1
Flash point:
Explosion limits:
Autoignition temperature:
Water solubility:

Stability

Slightly unstable - will very slowly decompose. Decomposition is promoted by catalysts and heating, so store cool. Light sensitive, keep in the dark. May contain stabilizer. Reacts with rust, brass, zinc, nickel, finely powdered metals, copper and iron
and their alloys.

**Toxicology**

May be harmful if swallowed or inhaled and in contact with the skin. Note that solutions of significantly higher concentration (30% is often used) present a much more pronounced risk, especially if splashed onto the skin or into the eyes. For data on 30% hydrogen peroxide, click here. Very concentrated solutions and pure hydrogen peroxide, as opposed to dilute solutions, are dangerous and should not be handled without expert instruction.

**Toxicity data**
(The meaning of any toxicological abbreviations which appear in this section is given here.)

**Risk phrases**
(The meaning of any risk phrases which appear in this section is given here.)

**Transport information**
(The meaning of any UN hazard codes which appear in this section is given here.)

**Personal protection**

Safety glasses.

**Safety phrases**
(The meaning of any safety phrases which appear in this section is given here.)
S26 S36.

[Return to Physical & Theoretical Chemistry Lab. Safety home page.]

This information was last updated on March 23, 2004. We have tried to make it as accurate and useful as possible, but can take no responsibility for its use, misuse, or accuracy. We have not verified this information, and cannot guarantee that it is up-to-date.