



# Specialty applications



Hydrogen peroxide

**Nouryon**

# Nouryon's Hydrogen Peroxide Advantage

Hydrogen peroxide is well known as an environmentally compatible product which decomposes into oxygen and water.

**The Nouryon Advantage** – From production facilities in Norway, Sweden and USA, we offer our customers stabilized aqueous hydrogen peroxide solutions under the brand name Eka®. Hydrogen peroxide subscript is a clear, colorless liquid that can be mixed with water in any proportion.

Our responsive sales staff will provide timely quotes, often within hours. We are able to do this because we are supported by a superior Customer Service and Logistics team. Nouryon maintains a dedicated fleet of trucks and railcars to ensure your delivery and quality needs are met on a consistent basis. When necessary, you can count on our experienced technical staff for troubleshooting assistance. To ensure that we can meet all customer needs we also have a dedicated distributor network throughout North America and Europe.

## Safety First

Hydrogen peroxide is a powerful oxidizing agent which is relatively easy to handle in the concentrations that are produced and sold by Nouryon. It is important to have knowledge about its properties and handle it accordingly.

Please refer to the latest product SDS in your local language for the most current regulatory information about the safety and handling of hydrogen peroxide. The PDS and Nouryon Hydrogen Peroxide Product Information Manual also have pertinent information; your Nouryon Representative will be able to provide you with these documents.

## Eka® Hydrogen Peroxide product portfolio

### Technical grade

Our standard product with proven high stability and consistent quality. Used in a wide range of applications that include pulp bleaching, flue gas cleaning, cyanide detoxification and municipal wastewater treatment (Peroxyclear where NSF Certification is required).

### Aseptic grade

Adapted to meet the exact specifications of our clients this aseptic grade of hydrogen peroxide is available for both bath and spray application methods that have high demands on product purity, e.g. in liquid packaging applications.

### Chemical grade

This grade is our highest purity grade as is designed to meet the demands of customers in chemical processing or the electronics industry.

### Food grade

Eka® HP F (Food Grade) products are high purity, food grade hydrogen peroxide. This hydrogen peroxide grade is suitable for food industry applications where the requirements of the FDA Food Chemical Codex standard are required.



# Special applications

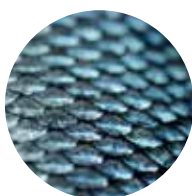
Hydrogen peroxide is a versatile chemical that is used in a variety of industrial applications; its main use is as a bleaching agent in the pulp industry.

## Aseptic Packaging

Our hydrogen peroxide is produced specifically for use in aseptic packaging machines; it is an effective product to sterilize the inside of an aseptic packaging container prior to filling - both bath and spray treatments.

## Aquaculture

We support the aquaculture industry in overcoming its environmental challenges by providing Nemona, an effective and sustainable fish delousing treatment. Nemona is a special grade of hydrogen peroxide produced under GMP, available as a Prescription Only Medicine. Visit [www.nemona.com](http://www.nemona.com) to learn more.



## Chemical Manufacturing

In the chemical industry, hydrogen peroxide plays a major part in both inorganic and organic applications. Examples include the manufacturing of percarbonates, perborates, peracetic acid and a wide variety of organic peroxides and propylene oxide.

## Cosmetics and Personal Care

Hydrogen peroxide is commonly used in cosmetics and personal care products. It can serve as an oxidizing and as an antimicrobial agent. It is used, for example in hair dye or in toothpaste to increase whiteness.

## Electronics

Hydrogen peroxide is used in the electronics industry as an etchant in the production of printed circuit boards. Moreover, it is used as an oxidizing and cleaning agent in the manufacture of semi-conductors.



## Environmental Applications

The general effectiveness and harmless by-products of hydrogen peroxide have made it a natural for treating industrial and municipal wastewater, removing such undesirable compounds as hydrogen sulfide, cyanides, hypochlorite, phenols, pharmaceuticals and various oxygen demanding organic compounds.



## Food processing

The food industry uses hydrogen peroxide for bacteria control, raw material and final product color adjustments. Household hydrogen peroxide is mainly used as a disinfectant.

## Recycling

Hydrogen peroxide is applied as a versatile bleaching agent in paper recycling with printing ink removal (de-inking).

## Medicine and Healthcare

In the pharmaceutical and medical industries, examples of hydrogen peroxide use include clinic disinfection, topical wound treatment and dental care (mouthwash and teeth whitening).



## Mining

Hydrogen peroxide can be used in several processing stages in hydrometallurgical processes, e.g. in leaching, separation and refining (purification) operations.

## Textiles

Textile manufacturers use hydrogen peroxide as a bleaching agent for the treatment of natural and synthetic fibers.

## Hydrogen peroxide grades and available packaging

Grades	Concentrations % by wt.	Rail Tank Cars	Tank Trucks
Technical	19, 34, 35, 49, 50, 59, 70	●	●
Food	35, 50	●	●
Aseptic	35		●
Chemical	49, 50, 59, 70	●	●
Peroxclear NSF certified	35, 50, 70	●	●

Regional product offering variations and concentrations of hydrogen peroxide solutions exist. Please contact your Nouryon representative for more information.

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# Nouryon

We are a global specialty chemicals leader. Industries worldwide rely on our essential chemistry in the manufacture of everyday products such as paper, plastics, building materials, food, pharmaceuticals, and personal care items. Building on our nearly 400-year history, the dedication of our 10,000 employees, and our shared commitment to business growth, strong financial performance, safety, sustainability, and innovation, we have established a world-class business and built strong partnerships with our customers. We operate in over 80 countries around the world and our portfolio of industry-leading brands includes Eka, Dissolvine, Trigonox and Berol.

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