

## HYDROGEN PEROXIDE 50%

Last revision 2011

**Chemical Name:** Molecular formula: H<sub>2</sub>O<sub>2</sub>  
 No. CAS: 7722-84-1  
 Abbreviation: Hydrogen Peroxide

### General Description:

Hydrogen Peroxide is one of the strongest oxidizers.

Hydrogen Peroxide is a colorless liquid, can be mixed with water in any ratio, is soluble in ether and alcohol. It has a high dielectric coefficient, closer to that of water, and when it doesn't act like an oxidizer, it is a good ionizable solvent against salts.

Being unstable, it decomposes spontaneously in water and oxygen, the rate being affected by some elements as: light, heat, catalysts, etc.

### Technical Quality Conditions:

Characteristics	MU	Limits		Test methods
Type	-	50	60	-
Appearance	-	clear liquid		visual
Color	-	colorless		visual
H <sub>2</sub> O <sub>2</sub> content, min.	%	49.5-50.5	59.5-60.5	ILL-003/3-04-17
Acidity (H <sub>2</sub> SO <sub>4</sub> ), max.	%	0.035	0.025	ILL-003/3-04-19
Stability at 100°C (concentration loss), max.	cm <sup>3</sup> O <sub>2</sub> released/minute	0.4	0.4	ILL-003/3-04-08

### Specific Properties:

	Type 50	Type 60
pH	1.0-3.0	1.0-3.0
Density at 20°C, g/cm <sup>3</sup>	1.19	1.24
Boiling point °C	114	125
Melting/ freezing point °C	-52	-56

*The values of those characteristics are approximated, and are only for general information and are not part of the technical quality conditions.*

## Main Applications:

- bleaching agent in textile industry;
- drinking and waste water treatment;
- detergents, pulp and paper industries;
- synthesis in chemical industry;
- metallurgy and mining industry;
- oil refining;
- environmental protection.

## Packing and storage:

The product is packed in AISI 316 L (W1.4571) stainless steel or minimum 99.5% purity aluminum railway or road tankers provided with warning signs, or in polyethylene cans (client property) provided with outlet valves.

Hydrogen peroxide is stored only after it has been stabilized in containers provided with venting.

The storage is done in a cold, well vented area, far from inconsistent substances and heat sources. Storage should be done in glass, aluminum, high density polyethylene, stainless steel 304 L and 316 L containers, provided with cover with valve. Polypropylene is not to be accepted as a material to come in contact with H<sub>2</sub>O<sub>2</sub>.

Containers used for the storage and transportation of the hydrogen peroxide are only exclusively to be used for this product. Containers filled with hydrogen peroxide in any concentration should not be stored on wooden pallets.

The product should be kept away from contact with organic or mechanic impurities, because they promote decomposition.

The vehicles used to transport canisters should have the floor well watered.

The product does not carry along with other chemicals or fuels.

## Safety Consideration:

Before handling and using of product, the personnel must be aware of the dangers implied. This information is available in MSDS and on the product label.

## Attention:

Please contact OLTCHIM to see if the document has been revised and for any other additional information related to the product.

## Important:

For a better suitability of the product for your particular purpose, tests are recommended prior product use. You are advised to make your own determination as to safety, appropriate manner of handling, storage, use and disposal. All the information contained in this product technical sheet is offered for your consideration, investigation and verification. The data is presented in good faith and is believed to be reliable. You should not consider the descriptions, information, data or design as a part of our terms and conditions of sale. We expressly disclaim responsibility or liability for any loss, damage or expense arising out of reliance on the information provided herein.