HYDROGEN PEROXIDE (H_2O_2)
(Perhydrol, Hydroxyperoxide, Oxydol)

PRODUCT SPECIFICATIONS:

		% 30	%35	%50	%60	%70
Concentration (% m/m)	:	≥30	≥35	≥30	≥30	≥30
Acidity (% H_2SO_4)	:	≤0,04	≤0,04	≤0,04	≤0,045	≤0,045
Stability (%m/m)	:	≥97	≥97	≥97	≥97	≥97
Appearance	:	Clear, colorless liquid				

PHYSICAL AND CHEMICAL PROPERTIES:

Concentration	% 30	%35	%50	%60	%70
Boiling Point (°C)	106	108	114	119	126
Freezing Point (°C)	-25	-32	-52	-56	-40
Active O_2 Content (%)	14,1	16,4	23,5	28,5	32,8
Relative density (20°C/ 4°C)	1,11	1,13	1,19	1,24	1,29
Total Vapour Pressure (30°C) torr	25	24	18	14	11
Partial Vapour Press (30°C) torr	0,25	0,3	0,6	0,9	1,3

PACKAGING:

Delivered in 65 kg plastic drums, 1 m^3 IBC tanks and bulk in ISO containers.

ANALYTICAL METHOD:

Method : Titrimetric

Reagents : 0,1 N $KMnO_4$ and % 5 H_2SO_4 (Analytical purity)

Precedure : Take 0,15-0,20 gr of sample, put weighing bottle in a 250 mL erlenmayer flask containing 100 mL of %5 sulfiric acid, titrate with 0,1 N potassium permanganate standart solution to a pink color, which does not dissappears in 30 sec.

Calculation :

$$\%\ H_2O_2 = \frac{F \times V \times 0{,}17}{G}$$

F : Factor of 0,1 N $KMnO_4$ Standart solution

V : Volume of 0,1 N $KMnO_4$ standart solution (mL)

G : weight of hydrogen peroxide sample, (gr)

APPLICATION FIELDS

- Industry of Textile : As a bleaching agent.
- Industry of Pulp and Paper : As a bleaching agent.
- Industry of Chemistry : In oxidation and hydroxilation reaction; also in the production of organic/inorganic peroxy compound like perasetic acid, sodium perborate, sodium percarbonate and calcium peroxide.
- Industry of Environmental Chemicals : Waste water treatment; as a detoxifying agent and provides dissolved oxygen.
- Food Processing : Sterilization of packaging of milk, fruit, juices etc.
- Industry of Pharmaceutical : Topical antiseptic and contact lens cleaner.
- Industry of Cosmetic : Hair bleaching and dye setting through oxidation.
- Industry of Mining : Removing poisonous effects of different mines.
- Industry of Metallurgy : Forming of metallic surface.
- Industry of Pool Chemical : Water cleaning and recovery.

STORAGE AND HANDLING:

- Hydrogen Peroxide should be stored in a cool place, away from direct sunlight, heat and oxidizing agents.
- Keep the empty containers sealed to prevent the penetration of any catalytically active contaminant.
- Avoid the contact with organic material or oxidizable product. Even though the product is not flammable itself, the concentrated solution will act as a strong oxidizing agent and may ignite flammable materials.
- Always keep sufficient water to wash the area, in case of an accidental leakage or spill. Aerate the place in order to remove the hydrogen peroxide vapor.
- Wear a protective clothing, to avoid the corrosive effect of hydrogen peroxide on skin, mucous membraines and respiratory passages.
- Materials that are suitable for storage of hydrogen peroxide:

Stainless steel (304/316 L)
Pure aluminium (min % 99,5)
Tantalum
Zirconium
Glass / Ceramic
Polyethylene and PVC (They can only be used for the concentrations up to 60 wt %)

Vişnezade Mah. Süleyman Seba Cad.
No: 82 Maçka - İSTANBUL / TÜRKİYE
T: +90(212) 381 71 00 **F:** +90(212) 259 12 92
www.akkim.com.tr