

INTEROX[®] Hydrogen Peroxide

INTEROX[®] Food Grade, 35%, 50% Technical Data Sheet

Introduction

INTEROX[®] Food Grade hydrogen peroxide (H₂O₂) is formulated to meet the requirements listed in the Hydrogen Peroxide monograph of the Food Chemicals Codex. It is used in food processing as regulated by the Food and Drug Administration in 21 CFR 184.1366, Hydrogen Peroxide. Food Grade hydrogen peroxide is also used in non-food applications where particularly pure hydrogen peroxide is required.

Applications

Approved uses of INTEROX[®] Food Grade hydrogen peroxide include bleaching of tripe, instant tea and cheese whey. Hydrogen peroxide is an effective antimicrobial agent in cheese making and in the manufacture of starch. It is also approved as a sterilizing agent for aseptic packaging. INTEROX[®] Food Grade hydrogen peroxide is formulated to meet the stringent requirements of the drinking water industry. It is certified under ANSI/NSF Standard 60 Drinking Water Additives - Health Effects. Dosage levels shall be in accordance with NSF requirements.

Availability

INTEROX[®] Food Grade hydrogen peroxide is sold in concentrations of 35% and 50% and is available in bulk truck or railcar quantities from our Deer Park, Texas, and Longview, Washington plants. Product is also available in truckload drum shipments. Less than truckload shipments of hydrogen peroxide are available from Solvay Chemicals, Inc. distributors. For more information, or to place an order, please contact Solvay Chemicals at 1-800-SOLVAY-C, 800-765-8292 or 713-525-6500.

Physical Properties

Hydrogen peroxide is a clear, colorless, slightly viscous liquid. It is slightly denser than water but is miscible in water in all proportions. Hydrogen peroxide decomposes exothermally to water and oxygen with toxic residues. The decomposition is normally slow (<1% per year) with no temperature rise but is accelerated by heat and decomposition catalysts, such as transition metals and their compounds, strong acids and strong alkalis. For additional information, please refer to our brochure, INTEROX[®] Hydrogen Peroxide Safety and Handling.



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Typical Analysis	35%	50%
Concentration in water, % w/w	35.0 - 36.0	50.0 - 51.0
Apparent pH	2.5 - 4.2	2.0 - 3.5
Residue on Evap., mg/kg	60 max	60 max
Acidity as H ₂ S ₀ 4, mg/L	300 max	54
Lead, mg/L	4 max	4 max
Phosphate as P ₀ 4, mg/L	50 max	50 max
Iron, mg/L	0.5 max	0.5 max
Tin, mg/L	10 max	10 max
Specific Gravity	1.13	1.13
Appearance	Clear, colorless liquid	(same)

Storage and Handling

- Store hydrogen peroxide in the original vented container, upright, in a cool, ventilated area where it is protected from damage, or in bulk storage tanks made from approved alloys of aluminum or stainless steel.
- Do not store other chemicals, fuels, or combustible materials near hydrogen peroxide.
- Never return unused hydrogen peroxide to the storage container.
- When empty, rinse all hydrogen peroxide containers thoroughly with clean water before discarding.
- Use only approved materials for pumps, piping, and hoses.

Safety

- Persons working with hydrogen peroxide should be familiar with personal protective equipment, first aid measures and the proper safety and handling procedures. Consult the Material Safety Data Sheet (MSDS) for appropriate information.
- Prevent accidental decomposition by keeping the product free of contaminants.
- Prevent fires by avoiding accidental spills. Water is the preferred method for extinguishing fires in which hydrogen peroxide is present.
- Spills and leaks should be contained, diluted with copious amounts of water and disposed of in compliance with local regulations.
- Hydrogen peroxide storage or handling areas should be equipped with a safety shower, an eyewash station, and a water hose.

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First Aid

In case of product splashing into the eyes and face, treat eyes first.

- **Eye contact:** Flush eyes immediately with water for at least 15 minutes. Call a physician.
- **Skin contact:** Immediately flush skin with water while removing contaminated clothing and shoes. Call a physician if irritation persists.
- **Inhalation:** Remove the victim from the contaminated area to fresh air. Call a physician in case of respiratory symptoms.
- **Ingestion:** Consult with a physician immediately in all cases. DO NOT induce vomiting. If victim is conscious, rinse mouth and give fresh water.

Danger: Hydrogen peroxide solutions are strong oxidizers and corrosive to the eyes, mucous membranes and skin. Consult the MSDS for the appropriate Personal Protective Equipment to wear when handling hydrogen peroxide. In case of contact with the eyes, skin or clothing, flush with large amounts of water for 15 minutes. In case of ingestion, sit upright, drink large quantities of water to dilute the stomach contents and seek immediate medical attention. Product in contact with combustible materials may cause fires.

Before using, read Material Safety Data Sheet (MSDS) for this chemical.

Solvay Chemicals, Inc.

24 hour Emergency Phone Number - 800-424-9300 (CHEMTREC[®])

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