

# **HYDROGEN PEROXIDE FACT SHEET**

North Carolina Division of Public Health • Occupational and Environmental Epidemiology Branch

## **Chemical Information**

- Colorless liquid with bitter taste.
- Is nonflammable, but is a strong oxidizing agent that can cause spontaneous combustion when comes in contact with organic material.
- Can be highly toxic and irritating, depending on level of concentration.
- Used for medicinal applications and as a clothes and hair bleach.
- Higher concentrations are used for bleaching textiles and paper; as a component of rocket fuels; and for foam rubber and organic chemical production.

## **Hazards Identification**

### **Acute Exposure:**

- Corrosive to skin, eyes, and mucous membranes at high concentrations.
- Causes irritation at low concentrations to eyes, nose and throat.
- Ingestion may cause vomiting and mild stomach irritation.
- Severe systemic poisoning may also cause headache, dizziness tremors, convulsions, pulmonary edema, unconsciousness, and shock.
- The Emergency Response Planning Guideline 1 (EPRG - 1) for hydrogen peroxide is 10 ppm.

### **Chronic Exposure:**

- Repeated inhalation may cause chronic irritation of respiratory tract.
- May result in bleaching of skin and hair.

## **Stability & Reactivity**

- Reacts with oxidizable materials, iron, copper, brass, bronze, chromium, zinc, lead, manganese, and silver.
- Spontaneous combustion may occur if comes in contact with organic materials.

## **Handling & Storage**

- Store in original and closed container.

## **Glossary**

The American Industrial Hygiene Association (AIHA) defines Emergency Response Planning Guidelines (ERPGs) as guidelines for short-term exposures to airborne concentrations of high-priority, acutely toxic chemicals. The three ERPGs are defined as follows:

ERPG-1 – maximum airborne concentration below which is believed almost all individuals could be exposed for up to 1 hour without experiencing more than mild, temporary adverse health effects.

ERPG-2 – maximum airborne concentration below which is believed almost all individuals could be exposed for up to 1 hour without experiencing or developing serious health effects or symptoms that could impair ability to take protective action.

ERPG-3 – maximum airborne concentration below which is believed almost all individuals could be exposed for up to 1 hour without experiencing or developing life-threatening health effects.

