

PHOSPHORIC ACID FACT SHEET

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

Chemical Information

- 7th highest volume chemical produced in U.S.
- Can be liquid or solid depending on concentration and temperature.
- Colorless, odorless, sparkling liquid or transparent, crystalline solid.
- Toxic by ingestion, inhalation and skin contact.
- Skin and eye irritant.
- Used in fertilizers, soaps, detergents, sugar refining, animal feeds, water treatment, and as a preservative and additive in food and beverages.

Hazards Identification

Acute Exposure:

- Causes severe skin and eye irritation as a liquid.
- Solid form causes second-degree burns after a few minutes of contact.
- Causes upper respiratory tract irritation.
- Can cause eye burns, choking, coughing, shortness of breath, headache and nausea.

Chronic Exposure:

- The Emergency Response Planning Guideline 1 (EPRG - 1) is 3 mg/m³.

Stability & Reactivity

- Reacts with strong caustics and most metals.
- Reacts with metals to form flammable hydrogen gas.
- Do not mix with any solutions containing bleach or ammonia.

Handling & Storage

- Store in cool, dry, and well-ventilated area.
- Store separate from alkalis and most metals.
- Usually shipped as a solid or 85% solution.
- Use with caution and keep out of the reach of children.

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.

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