

SULFURIC ACID FACT SHEET

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

Chemical Information

- Highest volume chemical produced in U.S.
- Most widely used industrial chemical.
- Clear, colorless, oily, and odorless liquid.
- Very corrosive acid.
- Strong irritant.
- Known to be a human carcinogen.
- Used in the manufacture of storage batteries, fertilizers, chemicals, explosives, glue, dyes, and pigments.

Hazards Identification

Acute Exposure:

- Can severely irritate and burn skin and eyes.
- Exposure can cause headache, nausea, and vomiting.
- Inhaling can lead to nose and throat irritation, and tooth enamel erosion.
- Inhaling can irritate lungs and cause shortness of breath and coughing.
- Inhalation exposure can cause headache, nausea and vomiting.
- The Environmental Protection Agency (EPA) Acute Exposure Guideline Level 1 (AEGl - 1) for sulfuric acid is 0.20 mg/m^3 for an 8-hour period.

Chronic Exposure:

- Can cause dry, red, cracked skin at low concentrations.
- May wear away tooth enamel at high concentrations.
- Can irritate and inflame airways and aggravate asthma.
- May harm respiratory system.
- Has been associated with cancer of larynx and lung.

Stability & Reactivity

- Reacts to organic materials, chlorates, carbides, fulminates, water, and powdered metals.
- Reacts violently with water with evolution of heat.
- Corrosive to metals.

Handling & Storage

- Store in tightly secured containers in a cool, well-ventilated area away from combustibles, heat sources, and moist air.
- Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system).
- Never add water to a corrosive.

Glossary

The Environmental Protection Agency (EPA) defines Acute Exposure Guideline Levels (AEGLs) as threshold exposure limits for the general public that are applicable to emergency exposure periods ranging from 10 minutes to 8 hours. The three AEGLs are defined as follows:

AEGL-1 – airborne concentration of a substance at which the general population could experience notable discomfort, irritation or certain asymptomatic non-sensory effects.

AEGL-2 – airborne concentration of a substance at which the general population could experience irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.

AEGL-3 – airborne concentration of a substance at which the general population could experience life threatening health effects or death.

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