**BASF Chemical Emergency Medical Guidelines**

# Sulfuric acid ($H_2SO_4$) D 1

## Information and recommendations for patients

- **Patients whose clothing or skin is contaminated with liquid sulfuric acid can cause secondary contamination of rescue and medical personnel by direct contact. Patients exposed only to sulfuric acid vapor do not pose a significant risk of secondary contamination.**
- **Sulfuric acid is rapidly corrosive to all tissues. Eye contact causes severe burns and loss of vision. Contact with the skin cause severe burns, which may be delayed. Mists are irritating to the skin, eyes, and respiratory tract and causing irritation, coughing, chest pain and dyspnea. Swelling of the throat and accumulation of fluid in the lungs (shortness of breath, cyanosis, expectoration, cough) may occur.**
- **There is no antidote to be administered to counteract the effects of sulfuric acid. Treatment consists of supportive measures.**

**Substance information**

Sulfuric acid ($H_2SO_4$), CAS 7664-93-9
Synonyms: oil of vitriol, battery acid.
Sulfuric acid is a clear, colorless nonflammable oily liquid with a choking odor when hot. Its brownish color may be due to organic impurities, which have been charred by the high affinity for water. Sulfuric acid is used as a feedstock in the manufacture of other chemical commodities, synthetic fertilizers, nitrate explosives, artificial fibers, dyes, pharmaceuticals, detergents, glue, paint, and paper. It is an electrolyte in storage batteries. It is used in the leather, fur, food processing, wool, manufacture of plastics, petroleum refining, metal cleaning and pickling, and uranium industries, for gas drying, and as a laboratory reagent.

**What immediate health effects can result from exposure to sulfuric acid?**

Most exposures to sulfuric acid occur by direct contact with the skin and the eyes with liquid sulfuric acid. Contact with the skin and the eyes cause burns with tearing of the eyes. Inhalation of sulfuric acid mists cause sore throat and coughing. Extended exposure can cause severe breathing difficulty, which may lead to chemical pneumonia and death.

**Are any future health effects likely to occur?**

A single small exposure from which a person recovers quickly is not likely to cause delayed or long-term effects.
Some people who have had serious exposures have developed permanent breathing difficulty and tended to develop lung infections easily.

## Follow-up instructions

Keep this page and take it with you to your next appointment. Follow only the instructions checked below.

( ) Call your doctor or the Emergency Department if you develop any unusual signs or symptoms within the next 24 hours, especially:
- coughing or wheezing
- difficulty breathing or shortness of breath
- increased pain or a discharge from exposed skin or eyes
- chest pain or tightness

( ) No follow-up appointment is necessary unless you develop any of the symptoms listed above.

( ) Call for an appointment with Dr. _____ in the practice of _____ When you call for your appointment, please say that you were treated in the Emergency Department at _____ Hospital by _____ and were advised to be seen again in _____ days.

( ) Return to the Emergency Department/_____ Clinic on _____ (date) at _____ am/pm for a follow-up examination.

( ) Do not perform vigorous physical activities for 1 to 2 days.

( ) You may resume everyday activities including driving and operating machinery.

( ) Do not return to work for _____ days.

( ) You may return to work on a limited basis. See instructions below.

( ) Avoid exposure to cigarette smoke for 72 hours; smoke may worsen the condition of your lungs.

( ) Avoid drinking alcoholic beverages; alcohol may worsen your clinical conditions.

( ) Avoid taking the following medications: _____
_____

( ) You may continue taking the following medication(s) that your doctor(s) prescribed for you: _____
_____

( ) Other instructions: _____
_____

Signature of patient _____ Date _____
Signature of physician _____ Date _____

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