




# Sulfuric(VI) acid

Substance	Hazard	Comment
<b>Concentrated sulfuric(VI) acid</b>	 CORROSIVE	It causes severe burns. It reacts violently, becoming very hot, when mixed with water. For a 15-minute exposure, the vapour concentration in the atmosphere should not exceed 3.0 mg m <sup>-3</sup> .
<b>Moderately-concentrated sulfuric(VI) acid</b> (If 1.5 M or more) Includes acid used in car batteries.	 CORROSIVE	It causes severe burns.
<b>Moderately-dilute sulfuric(VI) acid</b> (If less than 1.5 M but 0.5 M or more)	 IRRITANT	It is irritating to the eyes and skin.
<b>Dilute sulfuric(VI) acid</b> (If less than 0.5 M)	LOW HAZARD	It may still cause harm in the eyes or in a cut.

## Typical control measures to reduce risk

- Use the lowest concentration possible.
- Use the smallest volume possible.
- Wear eye protection, including when making or disposing of solutions.
- Wear protective gloves if concentrated acid is handled on anything larger than a test-tube scale.
- **Add the concentrated acid slowly to cold water (or preferably ice) when diluting, never the reverse; stir frequently to ensure good mixing.**

## Assessing the risks

- *What are the details of the activity to be undertaken? What are the hazards?*
- *What is the chance of something going wrong?*  
Eg, Hazardous products are formed in reactions with the acid or corrosive fumes are produced if concentrated acid is over-heated.
- *How serious would it be if something did go wrong?*  
Eg, Skin and eyes can be seriously burned if not treated quickly.
- *How can the risk(s) be controlled for this activity?*  
Eg, Can it be done safely? Does the procedure need to be altered? Should goggles or safety spectacles be worn?

## Emergency action

- **In the eye** Flood the eye with gently-running tap water for 10 minutes. See a doctor.
- **Swallowed** Do no more than wash out the mouth with water. Do **not** induce vomiting. Sips of water may help cool the throat and help keep the airway open. See a doctor.
- **Spilt on the skin or clothing** Remove contaminated clothing. Especially with concentrated acid, quickly use a *dry* cloth or paper towel to wipe as much liquid as possible off the skin. Then drench the skin with plenty of water. If a large area is affected or blistering occurs, see a doctor.
- **Spilt on the floor, bench, etc** Wipe up small amounts with a damp cloth and rinse it well.  
For larger amounts, and especially for (moderately) concentrated acid, cover with mineral absorbent (eg, cat litter) and scoop into a bucket. Neutralise with sodium carbonate. Rinse with plenty of water.