



# Propanone

also known as Acetone

Substance	Hazard	Comment
<b>Propanone (acetone)</b> <i>Liquid</i> Used as nail polish (varnish) remover [but ethyl ethanoate (ethyl acetate) is more usual].	 FLAMMABLE  IRRITANT	DANGER: highly flammable liquid & vapour. Causes serious eye irritation; may cause drowsiness or dizziness; repeated exposure may cause skin dryness and cracking Its vapour may catch fire above -20°C. For a 15-minute exposure, the concentration in the atmosphere should not exceed 3620 mg m <sup>-3</sup> . The smell can be detected by most people at about 47 mg m <sup>-3</sup> , well below the level which could cause harm.

### Typical control measures to reduce risk

- Wear eye protection.
- Make sure the room is well ventilated or, in a laboratory, use a fume cupboard if possible.
- Check ways of putting out any fires.
- Do not use near naked flames; if heating is necessary, use an electrically-heated water bath or hot water from a kettle.

### 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, does propanone need to be heated? Could there be high levels of vapour, perhaps as a result of chromatograms drying?*
- **How serious would it be if something did go wrong?**
- **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. Consult a medic.
- **Vapour breathed in** Remove the casualty to fresh air. Keep him/her warm. Consult a medic if breathing is difficult.
- **Swallowed** Do no more than wash out the mouth with water. Do **not** induce vomiting. Consult a medic.
- **Spilt on the skin or clothing** Remove contaminated clothing. If more than a test-tube amount was involved, wash the affected area and clothing with plenty of water.
- **Clothing catches fire** Smother flames on clothing or the skin with a fire blanket or other material. Cool any burnt skin with gently-running tap water for 10 minutes.
- **Other propanone fires** Allow fires in sinks, etc to burn out. Fires at the top of test tubes, beakers, etc should be smothered with a damp cloth or heat-resistant mat.
- **Spilt on the floor, bench, etc** Extinguish all Bunsen flames. Wipe up small amounts with a cloth and rinse well. Open windows for larger amounts, cover with mineral absorbent (eg, cat litter), scoop into a bucket and add water.