



## Propanone

also known as *acetone*

Substance	Hazard	Comment
<b>Propanone</b> (acetone) <i>Liquid</i>	  <b>HIGHLY FLAMMABLE</b> <b>IRRITANT</b>	<p>DANGER: highly flammable liquid &amp; vapour. Causes serious eye irritation; may cause drowsiness or dizziness; repeated exposure may cause skin dryness and cracking.</p> <p>Its vapour may catch fire above -20°C.</p> <p>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.</p> <p>Sometimes used as nail varnish/polish remover . However, ethyl ethanoate (ethyl acetate) is more commonly used.</p>

### 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.
- Transfer or dispense in a fume cupboard.
- Ensure no naked flames or other sources of ignition.
- Pressure can build in containers on warm days. Open bottles with care in a working fume cupboard.
- Check ways of putting out any fires.
- 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 all emergency situations, alert the responsible adult immediately. Be aware that actions may include the following:

- In the eye      Irrigate the eye with gently-running tap water for at least 20 minutes. Call 999/111.
- Vapour breathed in      Remove the casualty to fresh air. Keep him/her warm. Contact 111 /999 if breathing is difficult.
- In the mouth/swallowed      Do no more than rinse and spit with drinking water. Do **not** induce vomiting. Call 999/111.
- 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 20 minutes. Call 999/111 if the area of burn is larger than a small coin.
- 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.