Methanol

also known as **methyl alcohol** *and* **wood alcohol**

Substance	Hazard	Comment
Methanol (methyl alcohol, wood alcohol) *Liquid*	 **HIGHLY FLAMMABLE** **TOXIC** **HEALTH HAZARD**	DANGER: highly flammable liquid and vapour; toxic if swallowed; toxic in contact with skin; toxic if inhaled; causes damage to organs if swallowed, through contact with skin or if inhaled. For a 15-minute exposure, the concentration in the atmosphere should not exceed 333 mg m^{-3}. The flash point is 11°C, ie the liquid gives off sufficient vapour at 11°C to ignite if a flame or spark is applied. Methanol is often added deliberately to ethanol ('methylated spirit') to make it undrinkable. A purple dye and an unpleasant smelling chemical (pyridine) make the product sold to the general public even less palatable. This is called denaturing. 'Industrial denatured alcohol' (IDA) lacks the purple dye and unpleasant smelling chemical. See *Sheet 60*.

Typical control measures to reduce risk

- Wear eye protection.
- Avoid skin contact.
- Make sure the room is well ventilated or, in a laboratory, use a fume cupboard if possible.
- Check availability of 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 methanol need to be heated? Could there be high levels of vapour?
- 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 them warm. Call 999/111 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.
- 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 methanol 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 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.

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