









Hydrocarbons: aromatic

Substance	Hazard	Comment
Benzene (benzol); Methylbenzene (toluene)	  HIGHLY FLAMM. HARMFUL  HEALTH HAZARD	DANGER: (Highly) flammable liquid & vapour; may be fatal if swallowed and enters airways; causes skin irritation. Benzene: causes serious eye irritation; may cause genetic defects and cancer; causes damage to organs through prolonged/repeated exposure. NOT RECOMMENDED for school use. For a 15-minute exposure, concentration of benzene in the atmosphere should not exceed 9.75 mg m ⁻³ . Methylbenzene: may cause drowsiness or dizziness; suspected of damaging the unborn child; may cause damage to organs through prolonged or repeated exposure.
Dimethylbenzene (xylene)	  FLAMMABLE HARMFUL	WARNING: Flammable liquid and vapour; harmful in contact with skin; causes skin irritation; harmful if inhaled.
Naphthalene <i>Solid</i>	   HEALTH HAZ. HARMFUL ENV. HAZ.	WARNING: Harmful if swallowed; suspected of causing cancer by inhalation; very toxic to aquatic life with long-lasting effects. Used in moth balls. If heated, concentration of vapour increases considerably.

Typical control measures to reduce risk

- Use smallest amount possible; wear eye protection; avoid skin contact; make sure room is well ventilated. Commercially available petrol and diesel contains various amounts of Benzene, so should not be used.
- Use fume cupboard or prevent escape of vapour, eg with mineral wool plug in test tube.
- Check equipment to put out fires, eg damp cloth, bench mat, fire blanket.
- Do not use the highly flammable liquids 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 hydrocarbon need to be heated? Could quantities of the vapour be breathed in?
- 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. Call 999/111.
- 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. Wash the skin with soap and water. Take contaminated clothing outside for the solvent to evaporate.
- Spilt on the floor, bench, etc Open windows if large amounts are spilt. Consider the need to evacuate for large spills. Cover with mineral absorbent (eg, cat litter) and scoop into a bucket. Add washing-up liquid and work into an emulsion. Wash to waste with plenty of water.