


## Safety Regulations

- Observe the relevant national safety regulations.
- In the United Kingdom, Health and Safety advice can be obtained from your local Health and Safety Executive Office.
- Refrigerant 134a must never be mixed with refrigerant R12.
- The refrigerant oils for air conditioning systems filled with refrigerant 134a and R12 must never be mixed.

**NOTE:** Filling or topping up with refrigerant R12 is no longer permitted. During service or repair work, affected systems must be changed over to use R134a (Government environmental regulation).

**NOTE:** Even when an air conditioning system has been drained, pressure builds up again due to the residual refrigerant in the refrigerant oil when the system is closed.

- It is imperative to follow the instructions provided by the refrigerant and equipment manufacturer when filling and evacuating the air conditioning system.

 **CAUTION:** Refrigerant R134a is known as a safe refrigerant, however accidents can occur if it is handled incorrectly. For this reason, the following instructions must be observed:

- When handling refrigerant, always wear protective goggles and gloves, eg, made of fluoroelastomer. Leather or plastic gloves are unsuitable.
- Avoid contact with liquid refrigerant R134a. At atmospheric pressure R134a evaporates at approximately  $-26^{\circ}\text{C}$  and causes frost bite. In the event of skin or eye contact with liquid refrigerant, wash the affected areas immediately with plenty of water. Seek medical treatment immediately.
- R134a must not be allowed to escape in enclosed areas. Although R134a is not toxic, there is a danger of suffocation as gaseous refrigerant is heavier than air.
- It is imperative to avoid working on the air conditioning with naked flames as the highly toxic gases fluorophosgene and hydrogen fluoride are formed when the refrigerant is exposed to high temperatures.
- Soldering and welding must not be carried out on a filled air conditioning system (danger of explosion).
- The maximum temperature of  $90^{\circ}\text{C}$  in the paint drying oven (measured under the hood) must not be exceeded.


Moreover, it must be noted that R134a must always be extracted from the system and collected using one of the recommended servicing units. It must never be discharged into the atmosphere on environmental grounds (greenhouse effect).

When working with filling bottles:

- Do not expose them to sunlight or heat.
- Protect them from frost.
- Transport them upright.
- Do not drop them.
- Always ensure they are properly closed.

Filling bottles with one valve for draining liquid refrigerant must be turned upside down, ie, with the filling valve at the bottom.

Filling bottles with two valves must not be turned upside down.

 **WARNING:** Please observe the following first aid instructions.

After inhalation, move the affected person to fresh air, keep him warm and allow him to rest. If necessary, he should be supplied with oxygen. If he has stopped breathing or is breathing erratically, he should be given artificial respiration. In the case of cardiac arrest, carry out heart massage. Send for a doctor immediately.

After skin contact, rinse the affected area with water.

After eye contact, rinse the eye(s) with plenty of water for at least 15 minutes and consult a doctor.