

RISK ALERT

AUTOMOBILE AIR-CONDITIONING REFRIGERANTS: DANGER OF FLAMMABLE COMPOUNDS



Mixtures of flammable compounds are sometimes used as replacement refrigerants in automobile air-conditioning systems. They include hydrocarbons such as propane, butane and ethane and are sold by brand names such as HC-12a, OZ-12, ES112R/ES12R, Calor Gas CARE 30 (and possibly other names). Under certain conditions these compounds can cause fires and explosions. Their use is not prohibited.

The WHSCC stresses the importance of carefully following all instructions on the refrigerant replacement warning tag during repairs to the vehicle's air-conditioning system. This advice is provided in order to eliminate any potential fire or explosion.

Fires and explosions are also possible if the refrigerant is put through a recycler not intended for flammable refrigerants. Explosive gas mixtures can be drawn into the electric motors where sparks can trigger an explosion.

Recommended Preventive Action

Any person who repairs automobile air-conditioners should:

- Be aware of the danger of fire or explosion.
- Check for warning tags before attempting any repair.
- Inquire from the car's owner about any air conditioning repair records.
- Check the refrigerant for any flammable compound in the system, if a gas analyzer is available.
- Vent and purge the system to atmosphere before taking the vehicle into the garage – if a flammable hydrocarbon is identified.
- Preferably use non-flammable refrigerants, for health and safety reasons.

The WHSCC recommends that automotive shops working on air-conditioning systems have a gas analyzer. The analyzer will detect hydrocarbons and allow for proper precautions to be taken.