

Safety Alert – Use of Flammable Hydrocarbon Gases in MVACs

(Motor Vehicle air-conditioning systems)



Background

This safety alert has been prepared jointly by MVRIA and WorkCover NSW to ensure motor vehicle repair businesses are aware of the hazards to their staff and customers in respect to re-gassing Motor Vehicle air-conditioning systems (MVACs) with Flammable Hydrocarbon Gases.

Prior to the introduction of the new *Occupational Health and Safety (Dangerous Goods) Amendment Regulation 2005* on 1 September 2005, the use of flammable hydrocarbon gases as refrigerants in motor vehicle air conditioning systems was banned under the previous *Dangerous Goods Regulation*.

This Safety Alert has been prompted by concerns that the new use of flammable hydrocarbon gases will involve increased risks and that Industry is not aware of the safe working procedures which should now be adopted to ensure safety when working on motor vehicle air conditioning systems.

Flammable Hydrocarbon Gases are classified as Class 2.1 Dangerous Goods (Flammable Gases).

A major concern is that motor mechanics and private owners of motor vehicles who work on their vehicle engines are not made aware that a flammable gas may be present in the air conditioning system. Fire and explosion can

occur if the flammable hydrocarbon refrigerant leaks and is ignited. The risk is higher when the non-flammable refrigerant in the air conditioning system is replaced by a flammable refrigerant without the knowledge of the service personnel or the acknowledgment of the vehicle/air conditioning manufacturer. Most people are unaware that refrigerants can be flammable.

OH&S Issues

The *Occupational Health and Safety Act 2000* (the Act) and the accompanying *Occupational Health and Safety Regulation 2001* (the Regulation) have safety requirements for plant and substances used at work, including refrigerant gases (substances). The onus is on employers to do a risk assessment and use appropriate risk controls when re-gassing motor vehicle air conditioning systems (plant).

The Act in section 11 states that designers, manufacturers and suppliers of plant or substances for use by people at work must ensure that the plant or substance “is safe and without risk to health when properly used” and must provide or arrange for the provision of adequate information to the persons to whom it is supplied to ensure its safe use.

MVRIA and WorkCover therefore strongly urge businesses to follow the following steps:

- Before using hydrocarbons to re-gas any MVACs, obtain written advice from its designer, manufacturer or supplier that hydrocarbons can be safely used in it.

- Conduct a workplace risk assessment and ensure staff follow set procedures for the safe use and handling of the hydrocarbons.
- Obtain Material Safety Data Sheets (MSDS) from the supplier of the hydrocarbons and ensure staff adhere to the safety requirements set out in the MSDS.

Warranty Issues

To avoid the possibility of voiding a customer's vehicle warranty check with the motor vehicle manufacturer that they allow hydrocarbons to be used in their systems. This advice should be obtained in writing from each vehicle manufacturer and retained.

Written approval should be obtained from customers before re-gassing with hydrocarbons. The document should record that the customer was warned of possible safety issues associated with using flammable hydrocarbon gases in their air conditioning systems and that they agree to its use.

Further Information

- For further information about the safety requirements for the handling and use of dangerous goods including flammable hydrocarbon refrigerants refer to the *Occupational Health and Safety (Dangerous Goods) Amendment Regulation 2005* or contact your local WorkCover Office listed in the telephone directory or ring the WorkCover assistance line on 13 10 50 or visit WorkCovers website at www.workcover.nsw.gov.au.
- Speak to your trade association.
- Seek your own legal, OH&S and insurance advice.

More information?

For further information about the Authority and to see a copy of the latest annual report, go to www.mvria.nsw.gov.au

The Authority can be contacted by phone on 02 9712 2200, by fax on 02 9712 1432 or by email to mvria@mvria.nsw.gov.au

Office hours are 8.30am to 5.00pm Monday to Friday.

Street address
239 Great North Road
Five Dock NSW 2046

Postal address
PO Box 213
Five Dock NSW 2046

The office is wheelchair accessible.

Disclaimer: Please note that the information provided on this sheet cannot be relied upon as legal advice concerning the legislation enforced by the Motor Vehicle Repair Industry Authority. You should seek independent legal or other advice with respect to your obligations or entitlements under the legislation.