

NEWS RELEASE: FOR IMMEDIATE RELEASE

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Two severely burnt by vehicle air-con explosion: VASA calls for action on highly flammable hydrocarbon refrigerants

Two vehicle occupants seriously injured in Perth, WA, by fireball linked to air-con refrigerant leak

Many more could be hurt or killed by similar incidents if people are allowed to keep filling vehicle air-conditioning systems with highly flammable non-standard refrigerants

Loophole allows unlicensed operators to access flammable refrigerants and set up shop without proper training or safety knowledge

In addition to being dangerous, these refrigerants have been known to damage air-conditioning systems, increasing risks and causing big repair bills

No vehicle sold on the Australian market has ever been engineered by or approved by the original manufacturer to use hydrocarbon refrigerants

VASA, the peak body for automotive air-conditioning, electrical and cooling technicians in Australasia, is issuing another warning about the dangers of having a cheap air-conditioning service using non-standard, highly flammable refrigerants.

The dangers of these refrigerants are well known to the victims of a recent explosion in Perth, Western Australia, who are recovering from serious injuries caused by a fireball in the cabin of their vehicle.

Directly linked to this explosion was the presence of highly flammable non-standard hydrocarbon refrigerant in the vehicle's air-conditioning system, which escaped into the passenger compartment and ignited.

Imagine the horror of driving along on a normal day when blue flames started leaping from the air-conditioning vents you angled to cool your face. It is not hard to imagine the possibilities for permanent disfigurement and even death.

Despite the dramatic fireballs often seen in Hollywood movies and TV dramas, there are few reasons for ordinary vehicles to explode – so it is terrifying that the contents of your air-conditioning system could make it far more likely to blow up.

People who run their vehicles on LPG know this flammable gas is safely stored in a strong cylinder and fed to the engine using solid copper pipes, all certified to Australian standards – and a tag on their numberplate informs others of the onboard LPG.

But what if a very similar gas was flowing around rubber pipes and through delicate aluminium components, under the bonnet close to a hot engine, even hotter exhausts and lots of electrical components that could cause a spark?

And, making matters worse, what if none of those components were designed to work with this gas, increasing their chance of failure and making them more likely to let the dangerous content leak out?

Air-conditioning refrigerant operates under far greater pressure than the fuel in an LPG

engine and unlike fuel systems, refrigerant runs inside the passenger compartment, just behind the dashboard.

It's a horrifying thought when you consider industrial gas suppliers like BOC continue to remind their customers about the dangers of leaving gas cylinders in an enclosed vehicle space such as a van or passenger compartment.

Yet we find people replacing the safe, standard refrigerant with a highly flammable gas that sits in the evaporator unit behind a vehicle's dashboard – and an evaporator is certainly not an approved vessel for holding flammable gas.

Unfortunately this is not the plot of a Hollywood movie, nor the method stunt teams use to ensure an impressive kaboom for the camera. It is a real danger facing the lives of countless Australian families and anyone who travels in or services their vehicle.

Surely that's illegal? No, it is allowed in most Australian states and territories and worse, a loophole allows unlicensed, unqualified operators to access these flammable refrigerants and set up shop pumping them into peoples' vehicles.

It is worth remembering that despite cost savings associated with hydrocarbon refrigerants, no vehicle sold on the Australian market has ever been engineered by or approved by the original manufacturer to use them.

In fact, absolutely no vehicle manufacturer in the world recommends or endorses the use of hydrocarbons either as original equipment or as a retrofit option, not even in Europe, one of the world's most environmentally conscious regions.

VASA has long campaigned against the irresponsible use of flammable hydrocarbon refrigerants in vehicle air-conditioning systems.

"It is alarming to find, in most instances, the vehicle owner has not even been informed, before the highly flammable non-standard gas has been charged into their vehicle air-conditioning system," said VASA President Ian Stangroome.

"The dodgy cowboys are playing Russian roulette with other peoples' safety and their wallets."

VASA wishes the victims of the Perth explosion a speedy recovery and hopes their suffering will not be in vain if it helps bring about positive change to prevent the same – or worse – happening to others in future.

Avoiding the dangers

We all know the story of getting into the car on a hot day and finding out the air-conditioning isn't working properly.

A popular term used for one of the most common remedies to this situation is a "regas," meaning the refrigerant gas used in the system has run low and needs topping up.

But refrigerant in a properly functioning air-conditioning system doesn't just get used up. If it has disappeared the reason is usually either a faulty component or a leak – so just topping up the gas is like re-inflating a flat tyre without repairing the puncture.

You wouldn't inflate a tyre with LPG though, would you? Unfortunately a worrying trend has emerged in the less reputable corners of Australia's vehicle air-conditioning service industry, in which dodgy operators pump cheap, highly flammable gases into systems that were never designed for it.

It doesn't take a genius to work out the possible consequences of that and the additional dangers in a collision situation – not to mention the perilous situation facing innocent mechanics unknowingly servicing a car with an engine compartment full of flammable gas.

Because the industry standard refrigerant, R134a, is a powerful greenhouse gas if released into the atmosphere and therefore heavily loaded by the Carbon Tax, the cheaper flammable products use slogans claiming they are natural and eco-friendly.

But what might seem like a cheap, eco-friendly fix for your air-con is likely to lead to more visits – much more expensive visits – to the workshop down the line.

VASA member workshops have reported endless horror stories of air-conditioning repairs costing vehicle owners thousands upon thousands of dollars due to one of these cheap re-gas jobs.

In almost all cases, remedial work costing a few hundred would have fixed the problem for good first time around.

The message is clear: if your air-conditioning stops working, don't accept just a re-gas as the solution as it is storing up trouble.

Certainly don't let anyone fill your system with highly flammable, dangerous, damaging refrigerants. Accept only the refrigerant recommended by the vehicle manufacturer – this will be indicated on a label under the bonnet and on the vast majority of modern cars is R134a.

VASA member workshops have access to high-quality, cutting-edge technical information and training and abide by a code of practice, meaning they will recommend the right work for your vehicle, use the right parts and refrigerants and never offer a cheap bodge-job to send you on your way.

Find your nearest member workshop at: <http://www.vasa.org.au/find-vasa-members/>

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About VASA

VASA is a not-for-profit association formed by aftermarket vehicle air conditioning specialists in 1993 to encourage best practice repair procedures, continuous learning and ethical conduct. It also looks after the interests of aftermarket technicians through representation on key industry regulatory bodies and government liaisons.

When factory-installed air-conditioning in new cars took over from aftermarket installation, VASA extended its charter to embrace auto electricians, and eventually heat exchange repairers. This was partly achieved through the merging of the original body, the Vehicle Air-conditioning Specialists of Australasia and the Australian Association of Automotive Electricians in 2005.

For more information on VASA, please visit www.vasa.org.au

Contacts: Haitham Razagui editorial@vasa.org.au 07 5400 1148

The original report of the Perth explosion can be found at:
<http://www.vasa.org.au/two-injured-in-perth-hc-refrigerant-explosion/>