



***Cooling our world naturally***

**Engas Hydrocarbon Refrigerants**

Gentle on the environment    Energy efficient    Ensuring a better future

# What are Engas Hydrocarbon Refrigerants?

Engas Hydrocarbon Refrigerants are natural, non-toxic refrigerants that have no ozone depleting properties and minimal global warming potential. There are only five natural refrigerants. The other four are Air, Water, Ammonia and Carbon Dioxide.

## Natural and climate friendly

Engas Hydrocarbon Refrigerants are the perfect replacement for most chemical refrigerants. Unlike chemical refrigerants, Hydrocarbon Refrigerants have an atmospheric lifespan of less than a year and register almost zero global warming potential (GWP).

## Higher efficiency with guaranteed savings

Engas Hydrocarbon Refrigerants are approximately 50% more efficient conductors of heat than Fluorocarbon Refrigerants. Their operating pressures are about 20% lower than that of Fluorocarbon Refrigerants. These lower operating discharge pressures reduce the work that the compressor has to do thus reducing wear and tear. There is less pressure on pipe work, joints, hoses, fittings and the like reducing the likelihood of leaks. This can and will extend the working life of your equipment.

All these advantages equate to an **energy saving of between 17% and 50% with an average of 25%.**

## Simple and safe

Engas Hydrocarbon Refrigerants provide a **safe and easy retrofit solution** for trained engineers and technicians.

## Warranties

Retrofitting an existing air conditioning or refrigeration system with an Engas Hydrocarbon Refrigerant does not void any manufacturer's warranties under all Australian Consumer Laws.



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## Engas M10

Medium temperature Hydrocarbon Refrigerant

### Application:

- Ice-cream cabinets
- Domestic refrigerators and freezers
- Refrigerated display cabinets

Engas M10 is suitable for replacement of all R600a refrigerators and freezers.

All refrigerators and freezers using Engas M10 will **cool down approximately 30% faster and save about 20% on energy consumption** compared to refrigerators and freezers using R134a and R12.

## Engas M20

Special application Hydrocarbon Refrigerant

### Application:

- Residential and commercial air-conditioning systems that are designed to operate on R32

Engas M20 is a special purpose Hydrocarbon Refrigerant specifically designed to replace R32.

By retrofitting an existing system from R32 to Engas M20 we expect **savings of approximately 45% on energy usage**. Wear and tear will also be dramatically reduced on the air-conditioning system as a direct result of the conversion to Engas M20.

## Engas M30

Medium temperature Hydrocarbon Refrigerant

### Application:

- Vehicle air-conditioning
- Domestic refrigerators and freezers
- Cool rooms and freezer rooms
- Industrial liquid chillers (commercial and industrial)
- Supermarket display refrigerators

Engas M30 is designed as a direct replacement for R12 and R134a. Engas M30 is efficient and safe to use, requiring no modification to existing air-conditioning systems in motor vehicles.

By replacing existing R134a with Engas M30 in automobiles, vehicle interiors will be **cooled approximately 30% faster** due to the refrigerants' higher critical temperature.

## Engas M40

Medium to low temperature Hydrocarbon Refrigerant

### Applications:

- Air-conditioning systems
- Domestic, commercial and refrigerators and freezers
- Cool room and freezer rooms

Engas M40 is a pure Hydrocarbon Refrigerant which has no temperature glide.

It is a perfect replacement for air-conditioning systems manufactured for R290.

## Engas M50

Low temperature Hydrocarbon Refrigerant

### Applications:

- Residential and commercial air-conditioning systems
- Cool rooms and freezer rooms
- Milk chillers and vats
- Industrial liquid chillers (commercial and industrial)
- Refrigerated containers

Engas M50 is designed as a retrofit conversion replacement for the chemical refrigerants R22, R502, R404a, R407c and R507c.

By converting air-conditioning and refrigeration systems to Engas M50, you can **save approximately 20% energy usage**. Whilst also minimising wear and tear on all systems that are converted or retrofitted.

## Engas M60

Special application Hydrocarbon Refrigerant

### Applications:

- Residential and commercial air-conditioning systems that are designed to operate on R410a

Engas M60 is a special purpose Hydrocarbon Refrigerant specifically designed to replace R410a.

By retrofitting an existing system from R410a to Engas M60 we expect **savings of approximately 35% on energy usage**. Wear and tear will also be dramatically reduced on the air-conditioning system as a direct result of the conversion to Engas M60.



# What sets us apart

## Engas – the Hydrocarbon Refrigerant experts

Engas is an environmental and efficiency company built on more than a decade of research and expertise in the field of Hydrocarbon Refrigerant technology. We offer our distributors and customers an array of established hydrocarbon products with proven unparalleled performance.

Engas' superior hydrocarbon products are also complemented by our professional technical and customer support services. Customers can also expect quality onsite training and engineering consultancy support.

### Cool innovations for a better world

In an increasingly socially responsible business world, reducing carbon emissions and helping to fight climate change is a mission embraced by one and all. Over the years, Engas has been providing unique natural refrigerant expertise and solutions that help companies and individuals meet their environmental goals. With rapid worldwide conversions of cooling systems from fluorocarbon to Hydrocarbon Refrigerants, we look forward to a more natural and efficient cooling for a greener planet.

### Guaranteed for Quality and Purity

Engas Hydrocarbon Refrigerants are **guaranteed for quality and hydrocarbon content**. All our refrigerants are manufactured with vigorous quality control under the guidance of Dr Ladas Taylor.

### Dr Ladas Taylor B.Sc, PhD

*Technical Director*

Dr Taylor is a world expert on Hydrocarbon Refrigerants and has studied the use and application of natural refrigerants for over 30 years. He has been regularly contracted by the United Nations Environmental Program (UNEP) to lecture and carry out training in developing countries on the safe use and application of Hydrocarbon Refrigerants.

To address the problems of ozone depletion and climate change, Dr Taylor conducted independent research in the field of natural refrigerants. Through his sustained efforts, Dr Taylor has developed several hydrocarbon refrigerant blends to replace the harmful chemical refrigerants. He has also facilitated the successful application of natural refrigerants in countries all over the world.

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Official Distributor