

## **PREMIUM RED LONG LIFE GREEN COOLANT CONCENTRATE**

**PENNAROL Red Extended Life OAT Coolant** is an ethylene glycol-based antifreeze/coolant concentrate incorporating an advanced formula technology with virtually non-depleting organic acid corrosion inhibitors. The product is dyed a distinctive red-orange colour for ease of identification.

It is silicate free for improved pump life and contains no environmentally harmful nitrates, borates, phosphates, amines or nitrites.

**PENNAROL Red Extended Life OAT Coolant** is compatible with conventional coolants and can be used for top-up of conventional coolants. If the product is to be mixed with some heavy-duty diesel coolants, the user must continue to add SCA's (Supplementary Coolant Additives) for heavy-duty service until the next coolant change-out.

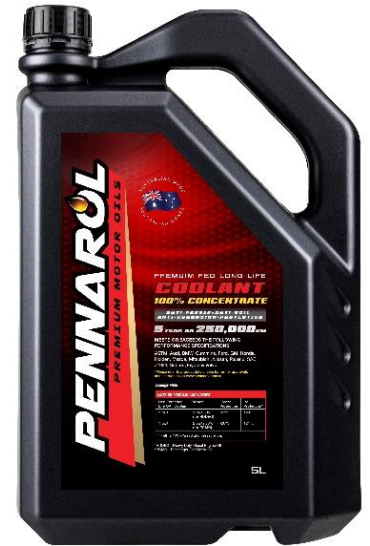
**PENNAROL Red Extended Life OAT Coolant** satisfies or exceeds many major standards and is recommended for major European, Japanese and US car and heavy-duty diesel engines.

**PENNAROL Red Extended Life OAT Coolant** can be added directly to the cooling system as a top-up adjustment of the freeze point of the cooling water.

### **Application**

**PENNAROL Red Extended Life OAT Coolant** is recommended for use in aluminium alloy petrol powered automotive engines, and in heavy duty diesel and natural gas mobile and stationary engines.

Provided the correct dosage of **PENNAROL Red Extended Life OAT Coolant** is maintained, flush and change the passenger car/light duty commercial vehicle cooling system contents every 5 years or 250,000 kms.



# PREMIUM **RED** LONG LIFE

## RED COOLANT CONCENTRATE

For **heavy-duty diesel** engines, **PENNAROL Red Extended Life OAT Coolant** more than doubles the life of conventional coolants to 500,000 km / 6,000 hours / 5 years; at the same time providing excellent protection against cylinder liner cavitation corrosion/erosion.

### Typical Characteristics

Test	Result
Colour	Red - Orange
pH Neat @ 33%	6.0 – 9.0
Ethylene Glycol content, wt. % typical	93.0
g/L typical	1060
Reserve Alkalinity, ml (pH 5.5)	5
Density, g/ml @ 20°C	1.11 - 1.14
Boiling Point, °C	172
Freezing Point, °C Max. (50% vol solution)	< - 37

**Note:** Pennarol Red Coolant Concentrate may be unsuitable for use in some vehicles, always consult owners' manual if in doubt

The performance and physical property data described for this product is typical results not sale specifications except where maximum or minimum is indicated.

### Dosage Rate

Test			
Red Extended Life OAT Coolant	Water	Freeze Protection	Boil Protection *
1 part	1 part 50% (for HDDEO)	-37°C	129°C
1 part	2 parts 33% (for PCMO)	-20°C	121°C
* with a 103 kPa radiator pressure cap			

\*HDDEO - Heavy Duty Diesel Engine Oil

\*PCMO - Passenger Car Motor Oil

## **PREMIUM RED LONG LIFE**

### **RED COOLANT CONCENTRATE**

**PENNAROL Red Extended Life OAT Coolant** antifreeze/coolant must not be used neat to the engine cooling system but diluted up to minimum 33% or maximum 67% with good quality water.

The dosage depends on the level of frost protection required and/or the manufacturer's recommendation/s. For optimum year-round protection against freezing, boiling and corrosion, 50 percent **PENNAROL Red Extended Life OAT Coolant** solution is recommended.

While **PENNAROL Red Extended Life OAT Coolant** is compatible with hard water, the use of soft or demineralised water is preferable to minimize scale deposits.

Do not mix **PENNAROL Red Extended Life OAT Coolant** with other coolant products as the extended life benefits will be reduced. If mixed with more than 15% of conventional coolant, treat the cooling system as if it contains the conventional coolant or drain and flush the system and refill.

#### **Product Benefits**

Advantages of using **PENNAROL Red Extended Life OAT Coolant** include:

- Can be used in most OEM diesel, petrol and natural gas engines allowing one coolant to be inventoried. The product lasts up to 3 times as long as conventional coolants.
- Reduces engine coolant cost by up to 60% over conventional coolants.
- Service life of up to 1,000,000 kms for truck engines, and up to 12,000 hours or 6 years (whichever comes first) for machine/commercial engines (when topped up with a once only coolant extender at the end of its initial service life).

**For automotive engines, drain at 250,000 kms or 5 years, whichever comes first.**

- Contains no silicates or environmentally harmful borates, phosphates, amines or nitrates. Hard water deposits and scale from silicate drop out in the cooling system are practically eliminated.
- The low level of total dissolved solids improves water pump seal life and prevents gel formation.
- Excellent heat transfer and superior aluminium protection at high operating temperatures.
- The combination of organic carboxylate inhibitors offers excellent protection against cast iron cylinder liner and block pitting and cavitation corrosion-erosion.

# PREMIUM **RED** LONG LIFE

## RED COOLANT CONCENTRATE

### OEM Performance Levels

ASTM D3306 and D4656

BMW N600 69.0

Cummins 90 T8-4

Detroit Diesel/Perkins

ISUZU

JASO M325 (Japan) LLC

Mitsubishi ES-X64216

Hyundai

Mercedes-Benz Sheet 325.3

SAAB

Volkswagen VW TL774D

Audi/SEAT/Skoda

Caterpillar EC-1

Daihatsu

Ford WSS-M97B44-C

NATO S-757

AS/NZ 2108.1:1997 (Australian Standard) Type A

Honda

Mazda MES 121C

Toyota TS K2601 G

Subaru

VOLVO

\*Check owners' manual before use

### Safety and Handling

The product contains ethylene glycol and is a Schedule 5 poison.

Read the Material Safety Data Sheet (MSDS) before opening the container and using the product



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