

# Red Pre-Mix Long Life Coolant

Nulon Red Pre-Mix Long Life Coolant (RLLTU) is a pre-diluted, ready-to-use 50/50 mix of Nulon Red Concentrated Long Life Coolant (RLL) and demineralised water. RLLTU is formulated to be used in either of two ways;

1. Add as a top-up to any cooling system that contains Nulon Red Concentrated Long Life Coolant. Or use to top-up any cooling system known to contain the following products:
  - Holden Extended Life Anti-Freeze Coolant
  - Ford Long Life Anti-Freeze Anti-Boil Concentrate
  - Dex-Cool®
  - PrixMax MEG95
2. Use as a complete fill product. This is particularly advantageous in areas where water is of poor quality, or is very hard, such as Perth and Adelaide.

All performance characteristics of Nulon Red Pre-Mix Long Life Coolant (RLLTU) are exactly the same as for Nulon Red Concentrated Coolant (RLL) when RLL is mixed 50/50 with water.

RLLTU provides the ultimate anti-boil, anti-freeze and corrosion protection for all late model vehicles, including petrol, diesel and heavy-duty diesel applications. RLLTU incorporates the most up-to-date Organic Acid Technology (OAT) carboxylate corrosion inhibitors. RLLTU is nitrate and amine free to meet US requirements, phosphate free to meet European requirements and silicate free to meet Japanese requirements. Nulon RLLTU's carboxylate inhibitor package is more stable and stays in solution better than traditional coolants. This provides an extended shelf life of five years. Nulon RLLTU will not form solids inside cooling systems, or become abrasive to water pump seals. All of this means that RLLTU provides maximum corrosion and anti-freeze, anti-boil protection for up to five years or 250,000 km (whichever comes first).

Nulon RLLTU is the preferred coolant to use in systems fitted with aluminium radiators. It is a genuine 100% OAT based, long life coolant. RLLTU is dyed its distinct red/orange colour to instantly distinguish its unique chemistry from traditional green coolants. It should not be mixed with other green coolants.

Nulon RLLTU provides maximum protection against cavitation erosion of wet cylinder liners in diesel engines. Nulon RLLTU is not recommended for use in cooling systems that have a copper/brass radiator (in such vehicles, use Nulon LL, which is green). If changing from any other coolant to RLLTU, always thoroughly flush the system first, as cross contamination will reduce the life of RLLTU.

## Applications:

Nulon RLLTU is recommended for use in all vehicles that use a red or orange coloured coolant. Nulon RLLTU is principally designed for use where OAT coolant is required. Use RLLTU where AS 2108.1:2004 Type A, GM6277M or Toyota TSK2601G specifications are cited. Use in all cooling systems as a replacement for any red/orange coloured coolant. Among specific makes of vehicles that use red/orange coolant are: Ford Falcon EA – EF, Holden Gen III V8, all Toyota models, Audi (some models), VW (some models), Jeep (most models), Chrysler (most new imports have red), Isuzu trucks, Daihatsu cars and trucks and Caterpillar.

## Benefits:

- 5 years or 250,000 km service life (whichever comes first) when used as directed
- Guaranteed to suit every vehicle where red/orange OAT based coolant has been specified
- Provides optimum, long term protection against corrosion of all cooling system metals
- Compatible with hoses and rubber fittings
- Expands operating temperature range
- Eliminates the need for supplemental coolant additives (SCA) in diesel engines
- Reduces the incidence of nucleate or hot spot boiling
- Not aggressive to water pump seals as is often the case with silicate based coolants
- Performance of OAT inhibitors does not diminish with time
- Particularly effective in controlling cavitation erosion of wet cylinder liners in diesel engines



**NULON**   
Australia's Own

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# Red Long Life Top-Up Coolant (Cont'd)

## Physical Properties:

Property Nulon	Nulon RLLTU
Density (g/ml at 20°C)	1.069
Freezing point (°C)	-37
Boiling point (°C)	111
Reserve Alkalinity (ml)	2.5
Glycol content (g/litre)	520
Glycol content (ml/litre)	470
pH (50% v/v in water)	8.5
Coolant hose test	Pass
Foaming, Height (ml)	45 max
Break Time (sec)	2
Chloride Ion (mg/L)	<10
Colour	Red/orange
Glycol content (g/litre)	520
Shelf life	5 years

**Temperature range** (Using 105 kPa radiator cap)

Boils at	130°C
Freezes at	-37°C

## Glassware Corrosion Test (ASTM D 1384)

Metal	AS 2108.1:2004 wt loss mg (max)	Typical result for Nulon RLLTU
Copper	10	2
Solder	15	+2
Brass	10	2
Steel	10	+1
Cast iron	10	+3
Cast Aluminium	15	4

\* Maximum allowed weight loss (mg)

## Simulated Service Test (ASTM D 2570)

Metal	AS 2108.1:2004 limit mg/cm <sup>2</sup> /week)	Typical result for Nulon RLLTU
Copper	20 (max wt loss)	5
Solder	60	+1 (gain)
Brass	20	4
Steel	20	1
Cast iron	20	+2 (gain)
Aluminium	60	1

## Water Pump Cavitation/Erosion Test (ASTM D 2809)

Metal	GM 1825M (rating)	ASTM D 3306 (rating)	Typical result for RLLTU
Cast Aluminium	8 min	8 min	9

## Aluminium Heat Rejection Corrosion Test (ASTM D 4340)

Nulon RLLTU Corrosion rate (mg/cm <sup>2</sup> /week)	AS/NZS 21008.1:2004 (max allowable rate, mg/cm <sup>2</sup> /week)
0	1.0

## Specifications and Standards:

Nulon RLLTU coolant satisfies the performance requirements of the following standards and specifications.

- AS 2108.1:2004 Type A
- ASTM D 2570 Simulated Service Corrosion Test
- ASTM D 2809 Cavitation Erosion Test
- ASTM D 3306
- ASTM D 4340 Heat Rejection Corrosion Test
- ASTM D 4985
- ASTM D 4656
- ASTM D 5345
- ASTM D 1384 Glassware Corrosion Test
- BMW (UK)
- BS 6580
- Daimler Chrysler MS-9769
- Ford ESE-M97B44-A, ESE-FM97B18-C, WSS-M97B44-D
- General Motors GM 1825M, GM 6277M, GM 1899M
- JIS K 2234
- Navistar B1, Type 3
- Nissan NES M 5509
- Mazda MES MN 121D
- Mitsubishi ES-X64217
- Saab FSD 8074
- SAE J 1034
- Toyota TSK 2601G
- Volvo (UK)

## Packaging:

5 litre (3 per carton) \* Part No: RLLTU

1 litre (12 per carton) \* Part Mo: RLLTU1



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