

## Puma Coolant Concentrate

### Organic Acid Technology (OAT) Coolant - (Monoethylene Glycol)

Puma Coolant Concentrate is a premium quality, organic, long life anti boil/anti freeze coolant concentrate. It is based on carboxylate technology and contains no silicates, borates, phosphates, nitrites, nitrates or amines. Puma Coolant Concentrate is suitable for both automotive and heavy duty diesel engines.

It contains 90% monoethylene glycol and a double inhibitor package ensuring ultimate corrosion protection and extended service life. Anti boil and anti freeze protection is equally afforded with a substantially higher rust and corrosion protection. Puma Coolant Concentrate is the ultimate in up to date coolant technology.

It protects all metals found in cooling systems and gives excellent protection against cavitation erosion and wet-sleeve liner pitting. It significantly increases the operating life of water pumps and exceeds corrosion performance levels required to meet Australian Standard AS2108.1-2004 and numerous performance specifications of OEM's including Ford & GMH.

This coolant has been independently verified to all relevant ASTM's for automotive and heavy duty diesel use. Provides maximum protection against 'hot spot' corrosion, common in aluminium cylinder heads. Puma Coolant Concentrate has a service life of up to 10 years/1,000,000kms\* in automotive applications and up to 6 years/600,000kms/6,000hrs\* in heavy duty diesels.

This has obvious environmental advantages as a result of fewer coolant changes. There are no deleterious effects on hoses or gaskets. (\*at 50/50 dilution ratio). It has a proven record over many years with marine engines, mining equipment, taxi fleets, government departments, bus companies and several large fleet truck companies.

- ✓ Coolant Concentrate
- ✓ Carboxylate Technology
- ✓ Compatibility

## Designed to Perform

### Many Applications

Universal use, fully meets or exceeds standard industry requirements for automotive, light duty and heavy duty diesel applications.

### Anti-Rust Properties

Its special anti-rust properties help to protect ferrous metals in contact with the cooling fluid.

### High Boiling Point

It has a high boiling point in order to provide high performances even under severe operating conditions.

### Anti-foam Properties

It's excellent anti-foam properties prevent conditions of air entrapment that could negatively affect the heat-removal capacity of the coolant. This action is assured even when circulation is very rapid.

### Service Life

Up to 10 years/1,000,000kms in automotive applications and 6yrs/600,000kms/6,000 hrs in heavy duty diesels

## Puma Coolant Concentrate

Meets the requirements of the following specifications:

- > AS 2108.1 : 2004 Type A
- > AFNOR NFR 15-601
- > ASTM D3306, D4656, D4985
- > BS 6580
- > SAE J1034, SAE J1941
- > GM 1825 M
- > GM 1899 M
- > Alfa Romeo - Paraflu UP
- > Audi Skoda Volkswagen - G12 G13
- > BMW N 600 69.0
- > Citroen 9979.70/71/72
- > Daimler Chrysler MS-7170
- > Daimler Chrysler MS-976
- > Daewoo - Ethylene Glycol Coolant
- > Daihatsu - Ethylene Glycol Coolant
- > Dodge - Mopar HOAT
- > FIAT - Paraflu UP
- > Ford ESE M97B44-A, WSS M97B44D
- > Ford ESE M97-B18C, WSS M97B44-D2
- > Glysantin G05, G12++, G30, G33, G34

- > Holden - GM6277M, GM1899M
- > Holden - HN1897, HN2217
- > Holden HN2043
- > Honda Longlife Type 2 All Season
- > Hyundai - Ethylene Glycol Coolant
- > Jaguar - WSS-M97B44-A
- > Kia - Ethylene Glycol Coolant
- > Land Rover Ethylene Glycol Coolant
- > Lexus Toyota - Super LL Coolant
- > Mazda - Ethylene Glycol Coolant, Mazda - FL22
- > Mercedes Benz 325.0, 326.0
- > Mitsubishi - Long Life Coolant
- > Nissan - EG Long Life Coolant
- > Nissan - NES 5059 LLC, NES M 5509
- > Peugeot - Procor 2000 Glysantin G33
- > Porsche 000 043 203 78
- > Renault - EG Long Life Coolant D
- > Subaru - Super Long Life Coolant
- > Suzuki - Ethylene Glycol Coolant
- > Toyota - K2601G, K2601-1G
- > Volvo
- > VW - G12+, G12, G11, TL-774-C

### Puma Coolant Concentrate

Meets the requirements of the following specifications for change to medium and heavy duty diesels:

- > AFNOR NFR 15-601
- > ASTM D3306
- > ASTM D4656
- > ASTM D4985
- > BS 6580
- > Caterpillar ELC
- > Caterpillar 1 EO 535
- > Cummins 3666132
- > DAF 742002
- > DAF BTPS 606A
- > DAF DCEA 615
- > Dennis Eagle Fleetguard
- > Freightliner Fleet Charge Powercool
- > FUSO SAE J814-C
- > Isuzu (GM6277M & HN2217)
- > IVECO Paraflu 11
- > IVECO GM6038M
- > IVECO AC9-50
- > Japanese JIS K 2234
- > Jenbacher
- > Kenworth ALLCOOL
- > Komatsu KES 07.892
- > Liebherr MD 1-36-130
- > MAN 324 SNF/248
- > Mack VCS Coolant
- > Mercedes Benz Spec. 325.0
- > Mercedes Benz 325.5
- > Mitsubishi FUSO Genuine Diesel LL Coolant
- > Saab Scania® 6901
- > SAE J 1034 and JASO M 324
- > Toyota K2601G - 1G
- > UD Long Life Coolant (Nissan)
- > Volvo VCS
- > Waukesha 4-1974D
- > Western Star ASTM D6210
- > Meets the phosphate-free requirements of European manufacturers
- > Meets the silicate-free requirements of Japanese manufacturers

## Typical Physical Characteristics

Test	Test Method	Performance
pH (50/50 Vol/Vol)	ASTM D-1287	7.7 - 8.6
DG Class	-	Non DG
Hazardous	-	Yes
Specific Gravity	ASTM D-1122	1.1103
Freeze Point	ASTM D-1177	-36°C
Boiling Point		108°C
Glassware Corrosion Test	ASTM D-1384	Pass
Aluminium Corrosion Test	ASTM D-4340	Pass
Water Pump Cavitation Test	ASTM D-2809	Pass
Foaming Tendencies Test	ASTM D-1881	
Cummins Anti Scale Test	-	Pass
Colour	-	Green

*These characteristics are typical of current product methods whilst future production will conform to Puma Lubricants specifications, variations in these physical characteristics may occur.*

## Health & Safety Environment

- > This product is unlikely to present any significant health and safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.
- > Avoid contact with eyes and skin, use proper impervious gloves with used oil. After skin contact, wash immediately with soap and water. Guidance on health and safety is available on the appropriate Safety Data Sheet (SDS) which can be obtained from [sds.pumaenergy.com.au](https://sds.pumaenergy.com.au)

## Protect the Environment

- > Take used oil to an authorised collection point. Do not discharge used or new oil into drains, soil or water.

## Additional Information

- > Technical advice may be obtained from your Puma Energy Representative.