

Puma HD Water Based OAT Coolant (Concentrate)

- ✓ Coolant Concentrate
- ✓ OAT Technology
- ✓ No Glycol

Puma HD Water Based OAT Coolant (Concentrate) is a water based engine coolant concentrate that contains proprietary organic acid technology (OAT). This product is free of ethylene glycol, silicates, phosphates, borates, nitrates, nitrites and amines. It is fully compatible with other similarly formulated OAT coolants. Our OAT corrosion inhibitors show little depletion from original levels during extensive laboratory and fleet testing. When diluted to 5% with softened or de-mineralised water this product provides excellent cooling system protection for passenger cars. However when diluted to 7% it provides excellent protection in petrol, diesel and gas engines, in, buses, tractors, trucks, industrial equipment and mining equipment. It can be used where an anti-freeze anti-boil product is not specified.

Designed to Perform

Applications

For use in passenger vehicles, heavy duty on-road and off-road vehicles, and mining equipment.

Extended Life

In HD applications provides a service life of up to 4 years, or 1,000,000km or 12,000 hours, whichever comes first.

In passenger cars it provides a service life of 3 years, or 100,000km.

Long Shelf Life

Extended shelf life stability (5 years); no possibility of silicate drop-out or gel formation.

Composition

Free from ethylene glycol, amine, borate, phosphate, nitrates, nitrites and silicate.

Compatibility

Compatible with other long life organic acid technology (OAT) based engine coolants; for best performance it is recommended to flush the old coolant and replace entirely with Puma Water base OAT Coolant, pre-mixed at 5% or 7%.

Puma HD Water Based OAT Coolant (Concentrate)

Puma HD Water Based OAT Coolant, when mixed at 7% meets or exceeds the performance requirements of the following engine coolant specifications:

- > ASTM D 3306/D 4985
- > AS/NZS 2108:2004 Type B
- > BS 6580
- > SAE J1034/J1941
- > CAT EC-1
- > Cummins Bulletin #3666132
- > FS NFR-15 601
- > Chrysler MS 9769
- > Ford WSS-M97B44-D/WSS-M97B51-A
- > GM 1825M/1899M/6277M

For best results, Puma Water Based OAT Coolant must **NOT be mixed with conventional high pH, phosphate, borate, silicate containing coolants**. While deleterious effects are not expected to be significant, the mixing of conventional coolants with Puma Water Based OAT Coolant will result in a lower than expected lifetime (change-over intervals).

Typical Physical Characteristics

Test	Test Method	Performance
pH	ASTM D-1287	7.5 – 9.0
Specific gravity (15.6°C/60°F)	ASTM D-1122	1.07 to 1.12
Foam Volume (mL)	ASTM D-1881	50 max.
Foam Break time (sec)	ASTM D-1881	5 max.
Ash content (wt. %)	ASTM D-1119	5 max.
Odour	-	Characteristic
Colour	-	Green
Shelf Life	-	5 years minimum
Total Glycols (wt. %)	-	0%
Chloride (ppm)	ASTM D-3634	25 max.
Silicon (ppm)	-	< 10
Boron (ppm)	-	< 10
Phosphorous (ppm)	-	< 10

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

Notice: Because use conditions and applicable laws may differ from one location to another and may change with time, the customer is responsible for determining whether products and the information in this document is appropriate for their use and for ensuring that their workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Puma's warranty is limited to the claims of product meeting stated specifications. It is the responsibility of the end user to determine product suitability as recommended in the Owner's Manual and to follow engine manufacturer's instructions.

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

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.