

# Viva Energy HD Premium N Antifreeze/Coolant Concentrate

## Description

Viva Energy HD Premium N Antifreeze/Coolant Concentrate is a fully formulated extended life heavy duty ethylene glycol antifreeze.

The product is a hybrid antifreeze, containing a combination of Organic Acid Technology (OAT) inhibitors boosted with borate, nitrite, nitrate, molybdate and silicate inorganic corrosion inhibitors. It is a low silicate, phosphate and amine free antifreeze.

It is suitable for heavy duty applications without supplemental coolant additives (SCAs) during the initial fill. Viva Energy HD Premium N Antifreeze/Coolant Concentrate is a concentrate and should be diluted with water. For best results, consideration should be given to use demineralised or de-ionized water if possible.

## Performance Features

- **All-climate year round performance.** When mixed with 50% water, Viva Energy HD Premium N Antifreeze/Coolant Concentrate provides freeze protection to -37°C and boil over protection to 129°C (with the use of a 103.4 kPa pressure cap).
- **Extended life capability.** Viva Energy HD Premium N Antifreeze/Coolant Concentrate the potential to deliver extended life of up to 12,000 hour or 1,000,000km in heavy duty applications under normal operating conditions as long as the coolant is checked at regular intervals after 6000 hrs or 500,000kms and kept in good condition with the supplemental coolant additive (SCA) levels in line with the OEM's requirements.
- **Field compatibility.** Viva Energy HD Premium N Antifreeze/Coolant Concentrate is miscible and compatible with other engine antifreeze; although to get the best performance from the extended life capabilities and the time between SCA additions, it is always recommended to not dilute Viva Energy HD Premium N Antifreeze/Coolant Concentrate with other coolants. It is also compatible with standard heavy duty SCAs and coolant filters.

## Applications

- **Heavy duty gasoline or diesel engine antifreeze.** Viva Energy HD Premium N Antifreeze/Coolant Concentrate is an amine and phosphate free fully formulated extended life engine coolant suitable for automotive and heavy duty gasoline and diesel engines found in on-road, off-road, marine, farm, mining and construction equipment.
- **Viva Energy HD Premium N Antifreeze/Coolant Concentrate contains organic additive technology corrosion inhibitors as well as inorganic corrosion inhibitors, borate, molybdenum, nitrite, nitrate and silicate.** This product does not require a charge of supplemental coolant additives (SCAs) during the initial fill or if the system is drained and fully charged with new diluted Viva Energy HD Premium N Antifreeze/Coolant Concentrate. It is recommended in diesel applications that the coolant be checked frequently and SCAs replenished to comply with the engine's OEM recommendations.
- **Specifically formulated to protect cylinder liners from pitting in heavy duty applications.** The low silicate level also provides aluminium compatibility for use in both light and heavy duty applications making it highly suitable for mixed fleets (light duty as well as heavy duty gasoline and diesel engines).

## Health, Safety and Environment

Viva Energy HD Premium N Antifreeze/Coolant Concentrate is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

**Avoid contact with skin.** Use 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, which can be obtained from

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the Viva Energy Technical Help Desk.

**Protect the environment.** Take used coolant to an authorised collection point. Do not discharge into drains, soil or water.

**Handling and protective measures.** The usual precautions for handling chemicals must be observed. In particular the place of work must be well ventilated, the skin protected and safety glasses worn at all times. Avoid contact with the skin. This product contains a bitterant reducing the chance of accidental ingestion. The product is based on monoethylene glycol and should be kept from children and animals to prevent exposure.

**Storage requirements.** Store at ambient temperatures and limit periods of exposure to temperatures above 35°C.

**Shelf life.** When stored under cover – away from moisture and direct sunlight – this product should be suitable for use for up to two years after manufacture.

## Specifications / Approvals

Suitable for use where the following specifications are quoted:

- ASTM D3306, D4985, D6210
- AS/NZS 2108.1:1997 "Type A"
- Caterpillar EC-1 (Sections 2.3-4.5 incl.)
- Cummins Bulletin 3666132
- Daimler Chrysler MS-9769
- Detroit Diesel 7SE298 / 93K217
- Freightliner 48-22880
- General Motors 1825M, 1899M, Heavy Truck
- JIS K 2234
- John Deere JDM H24
- Landrover
- Mack Truck 014GS17004
- MAN 324
- Mercedes-Benz DBL 7700
- MTU MTL 5048
- PACCAR CS0185
- Peterbilt 8502.002
- SAEJ1034
- TMC RP 329
- Volvo

For further information regarding equipment approvals and recommendations contact the Viva Energy Technical Help Desk.

## Typical Physical Characteristics

Properties		Methods	Premium HD Antifreeze/Coolant Concentrate
Appearance, visual colour			Green
Ash Content	%w/w	ASTM D1119	5.0 max
Flash Point	°C	ASTM D92	116 min
Freeze Point (50% by volume)		ASTM D1177	-37 °C
pH (50% vol)		ASTM D1287	7.6 – 8.6
Reserve Alkalinity	ml 0.1N HCL	ASTM D1121	6.0 min
Chloride	ppm	ASTM D3634	25 max
Specific Gravity @15.6°C	kg/L	ASTM D1122	1.120 – 1.140

These characteristics are typical of current production. Whilst future production will conform to Viva Energy's specification, variations in these characteristics may occur.

## Technical Help Desk

Phone	1300 134 205
Email	technicalhelpdesk@vivaenergy.com.au