



Shell HD-N 50% Pre-Diluted Antifreeze/ Coolant

'Ready-to-Use' High Quality Fully Formulated Nitrited Antifreeze/ Coolant 50% Pre-Diluted For Heavy Duty Applications

Shell HD-N 50% Pre-Diluted Antifreeze/ Coolant is a fully formulated, traditional chemistry corrosion inhibitor technology heavy-duty diesel engine coolant, and is formulated to include silicate, borate, nitrate and nitrite corrosion inhibitors, amongst others. It is phosphate and amine free.

Applications

Shell HD-N 50% Pre-Diluted Antifreeze/ Coolant is suitable for heavy duty gasoline and diesel engines found in on-road, off-road, marine, farm, mining and construction.

Shell HD-N 50% Pre-Diluted Antifreeze/ Coolant contains borate, nitrite, nitrate and silicate inhibitors. These products do not require a charge of supplemental coolant additives (SCAs) during initial fill or if the coolant is totally replaced.

It is recommended in diesel applications that the coolant be checked and SCAs replenished to comply with the engine OEM recommendations.

This product is specifically formulated to protect cylinder liners from pitting in heavy duty applications. The low silicate levels also provide aluminium compatibility for use in mixed fleet, gasoline and diesel, applications.

This product is 'ready-to-use' and should not be diluted further with water.

Performance Features and Benefits

- **Service life**

This product is suitable for 3000hrs or 300,00km in heavy duty application under normal operating conditions, whichever comes first, provided the coolant is kept in good conditions with the SCA levels in line with the OEM requirements.

- **Corrosion protection**

This product protects coolant system metals such as copper, solder, brass, steel, cast iron and aluminium against corrosion. It also protects wet sleeve liners against cavitation and corrosion.

- **Field compatibility**

Shell HD-N 50% Pre-Diluted Antifreeze/ Coolant is miscible and compatible with other traditional fully formulated coolant products. It is also compatible with standard heavy duty SCAs and coolant filters.

- **Phosphate and amine free**

This product is based on traditional inorganic inhibitors, including silicates, nitrites, nitrates and borates. It is phosphate and amine free.

Specifications and Approvals

Shell HD-N 50% Pre-Diluted Antifreeze/ Coolant is recommended for use where the following engine coolant specifications are required:-

| | |
|----------------|----------------------------|
| ASTM | D 3306 / D 4985 / D 6210 |
| AS/NZS | 2108:2004 Type A |
| Caterpillar | (Other than EC-1) |
| Cummins | Bulletin #366132 |
| Detroit Diesel | 7SE298; 93K217 |
| DC | MS 7170 |
| Ford | ESE-M97B44-A, ESE-M97B18-C |
| Freightliner | 48-22880 |
| GM | 1825M; 1899M; Heavy Truck |
| JD | HD24 |
| International | (IT&E) CEMS-B1 |
| Kenworth | RO26-170-97 |
| Mack | |
| New Holland | WSN-M97B18-D |
| Paccar | |
| Peterbilt | 8502.002 |
| SAE | J1034/J1941 |
| TMC | RP 329 |
| Scania | 6901 |
| Volvo | Heavy Truck |
| US Fed | A-A-870-A |





Health & Safety

Guidance on Health and Safety are available on the appropriate Safety Data Sheet, which can be obtained from your Recochem representative.

Protect the Environment

Take used coolant products to an authorised collection point. Do not discharge into drains, soil or water.

Shelf Life

When stored undercover, away from moisture and direct sunlight, this product should be suitable for use for up to one year after manufacture.

Typical Physical and Chemical Characteristics

| HD-N 50% Pre-Diluted Antifreeze/Coolant | Method | Units | Performance |
|---|--------------|-------------|-------------------------------|
| Appearance | Visual | | Green, Clear and Bright Fluid |
| pH (as sold) | ASTM D 1287 | | 10.0 – 11.0 |
| Reserve Alkalinity | ASTM D 11121 | mL 0.1N HCL | 4.0 min |
| Specific Gravity (15 DegC) | ASTM D 1122 | kg/L | 1.060 min |
| Water Content | ASTM D 1123 | %m | 49.0 – 51.0 |
| Freeze Point (as sold) | ASTM D 1177 | Deg C | -37 |
| Chloride | ASTM D 3634 | Ppm | 25 max |

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

