

KÜHLER HD COOLANT & ANTI-FREEZE (CLEAR RED/ORANGE/PINK)

Product Description

KÜHLER HD Coolant & Anti-Freeze (Clear Red / Orange / Pink) is a premium long-life radiator coolant and anti-freeze designed for diesel engines in heavy-duty vehicles and off-highway applications. It uses Nitrited OAT (NOAT) or Hybrid OAT inhibitors to offer extended protection against cavitation, corrosion, scaling, and overheating. It meets the coolant needs of modern emission-controlled engines including those with EGR, DPF, and SCR systems.

Product Features & Benefits

- Up to 600,000 km / 6 years of coolant life
- Nitrite, molybdate, and organic acid system protects cylinder liners
- Superior cavitation resistance and deposit control
- Prevents rust, scale, and electrochemical corrosion
- Phosphate- and silicate-free for broader compatibility
- Available as pre-mix or concentrate

Application

Suitable for all types of on-road trucks, buses, mining equipment, construction machinery, and agricultural engines operating under severe conditions.

Application (One Line):

For trucks, buses, and heavy-duty diesel engines requiring NOAT/HOAT extended-life coolant.

Meets or Exceeds

Petrovöll **KÜHLER HD** meets the performance standards of:

- ASTM D6210 / D3306 / D4985
- SAE J1034 / J1941
- Cummins CES 14603
- Volvo VCS / Mack / Freightliner
- Caterpillar EC-1
- Detroit Diesel 93K217
- John Deere JDM H24
- Navistar / PACCAR / MAN 324 NF

Typical Properties

Property	Method	Unit
Appearance	Visual	Clear Red / Orange / Pink
Base Fluid	—	Ethylene Glycol + OAT/NOAT
Density @ 20°C	ASTM D1122	1.120 - 1.130 g/cm ³
pH (33% solution)	ASTM D1287	8.0 - 8.7
Boiling Point (undiluted)	ASTM D1120	≥ 170°C
Freezing Point (50:50 dilution)	ASTM D1177	-36°C
Reserve Alkalinity	ASTM D1121	≥ 6.0 mL
Nitrite Level (if NOAT)	—	800 - 1200 ppm
Molybdate Level	—	~250 ppm
Ash Content	ASTM D1119	≤ 5.0%
Cavitation Test (ASTM D2809)	ASTM D2809	9+ rating
Corrosion Test (Glassware)	ASTM D1384	Pass



Dilution & Mixing

Coolant : Water	Freeze Protection	Boiling Point (approx.)
33:67	-18°C	~104°C
50:50	-36°C	~107°C
60:40	-52°C	~110°C

Note: Always use demineralized or distilled water for mixing. Do not exceed 70% concentration.

Storage & Handling

- Store at 5°C to 35°C in original sealed packaging
- Protect from frost, heat, and direct sunlight
- Shelf life: 5 years (unopened)
- Keep away from food and drink
- Avoid contact with skin and eyes

Health & Safety

Refer to Safety Data Sheet (SDS) for complete handling and disposal instructions. Keep out of reach of children. Avoid discharge into drains or the environment.

