



TECHNICAL INFORMATION

ORIGEN ANTIFREEZE RTU ASTM Extended-life OAT Coolant

DESCRIPTION

ORIGEN ANTIFREEZE RTU ASTM (Extended-life OAT Coolant) – mixed with the appropriate amount of water – is used as a cooling and heat transferring fluid in combustion engines. Excessive heat is transferred via the fluid to the radiator where the mixture is cooled by means of airflow. **ORIGEN ANTIFREEZE RTU ASTM** is an ethylene glycol-based fluid that provides maintenance-free protection against freezing and boiling but also against corrosion. Extended coolant life, often for the whole life of the engine or vehicle, is obtained through the use of virtually non-depleting corrosion inhibitors.

BENEFITS

ORIGEN ANTIFREEZE RTU ASTM offers many benefits to the engine designer as well as to the user:

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| • Extended life | by synergistic combination |
| • Improved heat transfer | leaves more flexibility to engine design |
| • Reduces repairs | to thermostat, radiator and water pump. |
| • Reliability | depletion free and stable inhibitor |
| • Improved hard water stability | absence of silicates and phosphates. |
| • Save time and money | maintenance-free coolant. |
| • Suitable for mixed fleets | 1 coolant for automotive & heavy-duty application |

Based on patented *silicate-free* aliphatic additive technology, **ORIGEN ANTIFREEZE RTU ASTM** provides long-life corrosion protection for all engine metals. Including aluminium and ferrous alloys. During extensive fleet testing, the synergistic combination of mono- and dicarboxylates present in this coolant, has proven to provide protection for at least **650,000 km** (ca. 8,000 hours) in truck & bus application or **250,000 km** (ca. 2,000 hours) for passenger cars or **32,000 hours (or 6 years)** for stationary engines.

It is recommended to change the coolant every five years or at above mileages or operating times, whichever comes first. **ORIGEN ANTIFREEZE RTU ASTM** provides long-life protection against all forms of corrosion using optimized and patented organic corrosion inhibitors. Excellent and lasting high temperature corrosion protection is provided for the **aluminium** heat transfer surfaces contained in modern engines. The inhibitor package offers excellent cavitation protection even without using nitrite or nitrite-based supplemental coolant additives (SCA's).



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APPLICATION

ORIGEN ANTIFREEZE RTU ASTM provides long-life frost and corrosion protection. To ensure good corrosion protection it is recommended to use at least 33 vol. % of **ORIGEN ANTIFREEZE RTU ASTM** in the coolant solution. This provides frost protection to -20°C. Typical mixtures in Northern Europe are 50/50, offering frost protection down to -40°C. Mixtures with more than 70 vol. % **ORIGEN ANTIFREEZE RTU ASTM** in water are not recommended. The maximum frost protection (about -69°C) is obtained at 68 vol. %.

ORIGEN ANTIFREEZE RTU ASTM may be used with confidence in engines manufactured from cast iron, aluminium or combinations of the two metals and in cooling systems made of aluminium or copper alloys. **ORIGEN ANTIFREEZE RTU ASTM** is particularly recommended for hi-tech engines, where high temperature aluminium protection is important.

ORIGEN ANTIFREEZE RTU ASTM is a rebrand of the original coolant purchased from a major global coolant supplier. The original formulation has been **officially approved by** many engine manufacturers. Some of these approvals are:

Ford specification WSS-M97B44-D, Mercedes-Benz specification 325.3, General Motors specification GM 6277m, MAN specification 324 type SNF, Volkswagen specification TL 774F, Komatsu KES 07.892.1.

The original formulation also **meets the performance requirements** of the following: John Deere JDM H5, Mitsubishi MHI, Volvo Construction/ Volvo Trucks, Caterpillar CAT EC-1.

ORIGEN ANTIFREEZE RTU ASTM has been extensively fleet tested for over 100,000,000 km! 540 vehicles, both heavy duty and automotive, have been closely monitored and showed:

- Limited depletion rates of the corrosion inhibitors: less than 10%.
- Superior aluminum protection.
- Average pump life increased by 50%.
- Excellent cavitation protection even without the addition of nitrite.
- No compatibility problems with good quality traditional coolants.
- No compatibility problems with seals, hoses and plastic components.



210lt



20lt

*MSDS available on request.

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