



CoolSpec

Coolant & Antifreeze

A range of
exceptionally versatile

summer coolants & winter antifreeze

highly effective
and developed
for all conditions

INTRO

A dedicated coolant is vital to engine health and efficiency, powerful pieces of machinery that require a stable running temperature. Extremes in temperature can have a negative effect on an engine operation, too hot, metal can expand, leading to wear and debris formation.

At very high temperatures fluid boils within the engine, generating air bubbles, which, decreases cooling efficiency and exacerbates the overheating. Likewise, if the fluid is too cold, fluid flow is decreased, which, can potentially cause catastrophic damage, poor running and breakdowns.

Working coolants degrade (oxidise) overtime, resulting in the formation of acids, acids lower the pH of the coolant leading to corrosion and oxidation of surfaces whilst attacking seals.

Coolspec coolants/antifreezes offer dedicated quality inhibitor technology to provide superior protection to engine blocks and components. They are suitable to use in a vast array of vehicles and equipment ranging from off-highway and heavy-duty through to passenger cars.

Heavy-duty engines are designed to work in arduous conditions, with high running durations accumulating long hours and high mileage. This puts severe demands on an engines coolant system, with higher temperatures and pressures.

When working in extreme conditions, maintaining the high-performance of vehicles and appliances is of fundamental importance for their productivity. It is important to use a summer coolant and winter antifreeze containing specialised inhibitor technology which is appropriate for the application.

Premium quality coolants and antifreeze:

- Defend against corrosion and cavitation.
- Improve protection for a variety of alloys including aluminium.
- Help prevent leaks by maintaining seals integrity the system.
- Prevents the accumulation of silicate gels and sedimentary build-up on metal alloys.

Cavitation-corrosion:

Cavitation-corrosion, is both corrosion and cavitation damage. Cavitation is the formation and collapse of a 'bubble' in the system due to changes in pressure.

At reduced pressure, fluid starts to boil, this forms bubbles. When the volume of fluid decreases, the pressure increases, and the bubbles collapse.

This rapid formation and collapse of bubbles destroys protective layers on the metal surface, unprotected metal surface undergoes corrosion and the protective layer is reformed, only for the bubble form and collapse again. The processes repeats causing the cavity to grow until failure occurs.





PRE-MIXED 50/50 & READY-TO-USE

Code	Name	Type	Colour	Recommended Life	Recommended by Aztec Oils as suitable to use in the following applications
WIN002	REGULAR CL03	MEG + IAT	Blue	2 years	ASTM D3306, BS 6580:2010, SAE J 1034 Freeze Point -37°C
WIN005	SUPREME LONGLIFE LL10	MEG + OAT	Red	5 years	BS 6580:2010, Chrysler MS 9176, Cummins CES 14603, DAF 74002, Deutz DQC CB-14, Ford ESD-M97B49-A, WSS-M97B44-D, GM 1899M, 6277M, Jaguar Land Rover STJLR.651.5003, Leyland Trucks LTS 22 AF 10, Mack 014GS 17004, MAN 324 SNF, Mercedes-Benz 326.3, Renault 41-01-001 Type D, Volvo VCS, VW Group TL 774 D&F Freeze Point -38°C
WIN020	SUPREME LONGLIFE VR12	MEG + OAT	Yellow	5 years	BS 6580:2010, Chrysler MS 9176, Cummins CES 14603, DAF 74002, Deutz DQC CB-14, Ford ESD-M97B49-A, WSS-M97B44-D, GM 1899M, 6277M, Leyland Trucks LTS 22 AF 10, MAN 324 SNF, Mack 014GS 17004, Mercedes-Benz 326.3 Opel QL130100, Renault 41-01-001 Type D, Volvo VCS VW Group TL 774 D&F Freeze Point -38°C
WIN016	SUPREME SILICATED OAT SI15	MEG + Si-OAT	Pink/ Lilac	5 years	BS 6580:2010, Cummins CES 14603, Deutz DQC CC-14, Liebherr Min LH-01-COL3A, MAN 324 Type Si-OAT, Mercedes-Benz 325.6, 326.6, Scania TB145, VW Group TL-774 G Freeze Point -38°C
WIN014	SUPREME HEAVY DUTY HD14	MEG + HOAT	Green	3 years	BS 6580:2010, BR 637, Caterpillar EC-1, Chrysler MS 9769, Cummins CES 14603, JCB STD00088 (HD), John Deere JDM H24, MAN 324, Mercedes-Benz 326.0, MTU (MTL) 5048 Freeze Point -37°C
WIN024	SUPREME HEAVY DUTY HD17	MEG + HOAT (NAP-free)	Blue/ Green	3 years	AFNOR NF R15-601, ASTM D3306 & D4985, BMW/Mini GS 94000, BS 6580:2010, Chrysler MS-7170, Cummins 85T8-2, Deutz DQC CA-14, Ford ESD-M97B49-A, Fiat 9.55523, IVECO 18-1830, MAN 324 Type NF, Mercedes-Benz 326.0, MTU (MTL) 5048, Opel/GM GME L1301, SAE J1034, Scania TB1451, Toyota 1WW/2WW, Volvo Cars 128 6083/002, Volvo Construction/Trucks Pre 2005, VW Group TL 774 C Freeze Point -38°C

Need **help** selecting the **correct coolant for your vehicle?**
Find your product with our online Oil Finder, visit **aztecoils.co.uk**



NEAT / CONCENTRATE

Code	Name	Type	Colour	Recommended Life	Recommended by Aztec Oils as suitable to use in the following applications
WIN006	REGULAR CLO1	MEG + IAT	Blue	2 years	ASTM D3306, BS 6580:2010, SAE J 1034
WIN007	SUPREME LONGLIFE LLO2	MEG + OAT	Red	5 years	BS 6580:2010, Chrysler MS 9176, Cummins CES 14603, DAF 74002, Deutz DQC CB-14, Ford ESD-M97B49-A, WSS-M97B44-D, GM 1899M, 6277M, Leyland Trucks LTS 22 AF 10, MAN 324 SNF, Mack 014GS 17004, Mercedes-Benz 325.3, Opel QL130100, Renault 41-01-001 Type D, Volvo VCS, VW Group TL 774 D&F
WIN019	SUPREME LONGLIFE VR11	MEG + OAT	Yellow	5 years	BS 6580:2010, Chrysler MS 9176, Cummins CES 14603, DAF 74002, Deutz DQC CB-14, Ford ESD-M97B49-A, WSS-M97B44-D, GM 1899M, 6277M, Leyland Trucks LTS 22 AF 10, MAN 324 SNF, Mack 014GS 17004, Mercedes-Benz 325.3, Opel QL130100, Renault 41-01-001 Type D, Volvo VCS, VW Group TL 774 D&F
WIN021	SUPREME NON-TOXIC PG13	MPG + OAT	Turquoise Blue	5 years	AFNOR NF R15-601, ASTM D3306 Type II, BS 6580:2010, Suitable for food & industrial applications where applicable.
WIN015	SUPREME SILICATED OAT S105	MEG + Si-OAT	Pink/Lilac	5 years	BS 6580:2010, Cummins CES 14603, Deutz DQC CC-14, Liebherr Min LH-01-COL3A, MAN 324 Type Si-OAT, Mercedes-Benz 325.5, Scania TB145, VW Group TL-774 G
WIN013	SUPREME HEAVY DUTY HD04	MEG + HOAT	Green	3 years	BS 6580:2010, BR 637, Caterpillar EC-1, Chrysler MS 9769, Cummins CES 14603, JCB STD00088 (HD), John Deere JDM H24, MAN 324, Mercedes-Benz 325.0, MTU 5048
WIN023	SUPREME HEAVY DUTY HD16	MEG + HOAT (NAP-free)	Blue/Green	3 years	AFNOR NF R15-601, ASTM D3306 & D4985, BMW/Mini GS 94000, BS 6580:2010, Chrysler MS-7170, Cummins 85T-8, Deutz DQC CA-14, Ford ESD-M97B49-A, Fiat 9.55523, IVECO 18-1830, MAN 324 Type NF, Mercedes-Benz 325.0, MTU MTL 5048, Opel/GM GME L1301, SAE J1034, Scania TB1451, Toyota 1WW/2WW, Volvo Cars 128 6083/002, Volvo Construction/Trucks Pre 2005, VW Group TL 774 C
WIN041	SUPREME LONGLIFE AK21	MEG + POAT	Dark Blue /Green	5 years	ASTM D 3306, ASTM D 4645, BS 6580:2010, Ford WSS-M97B57-A2, Honda Type 2, JIS K 2234, Mazda FL22, Nissan L255N, SAE J 1034, Subaru 16218, Toyota TSK 2601G-8 Suitable for Asian vehicle manufacturers including Hyundai, KIA, Komatsu, Mitsubishi and Suzuki.

For optimum performance, deionised or demineralised water is preferred for dilution although other water types can be used.

FAQ'S

What is a winter antifreeze and summer coolant?

Antifreeze reduces the freezing point of the water in a car's cooling system. When mixed with water it is called coolant as it also raises the boiling point of the liquid. Neat antifreeze must always be mixed with water before use at the recommend dilution. Many different types of antifreeze and coolant should never be mixed without checking with the vehicle manufacturer or product supplier.

What are the different types?

Named after the inhibitor technology, coolants are made up from a mixture of water, antifreeze agents such as monoethylene glycol (MEG) or monopropylene glycol (MPG) and specific additives/inhibitors.

Topping up your existing coolant with water should only be a temporary measure, as you will reduce the effectiveness of the coolant.

- **Inorganic Additive Technology (IAT)**

Conventional or traditional low silicate coolants, some of which require the addition of supplemental coolant additives (SCA).

- **Organic Acid Technology (OAT)**

Nitrate free coolants that provide a long service life without need for SCAs.

- **Nitrated Organic Acid Technology (NOAT)**

Extended life coolants containing nitrates, molybdenum and organic acid technology.

- **Hybrid Organic Acid Technology (HOAT)**

Combines OAT and IAT inhibitors, low silicate and nitrated coolants require an SCA.

- **Silicate Organic Acid Technology (SiOAT)**

OAT in combination with silicate and is free from nitrites, amines, phosphates, borates.

- **Phosphate Organic Acid Technology (POAT)**

Extended life coolants containing phosphate and organic acid technology, mostly recommended in Asian & Korean vehicles manufacturers.

How long does antifreeze/coolant last?

Antifreeze does not expire, but the inhibitors that prevent engine corrosion do. We recommended you replace your antifreeze in line with the manufacturer's guidelines.

Can the colour indicate the type of coolant?

A common misconception is that you can use colour to identify a coolant type, when it is first made the product is colourless/water white. The colour is added through either powder or liquid dyes, we do not advise using the colour of the coolant as an indicator of coolant type.

Why can't I just use water?

For cooling engines, water has some very positive qualities;

- Excellent heat transferability, water can hold more heat per unit volume than most other fluids.
- It has an OK boiling point.
- Readily available and relatively low cost.

Although, it has some potentially catastrophic issues;

- Water freezes at 0°C, which is unsuitable for most of the world.
- Water also expands when it freezes. When this happens in an engine it can destroy it as the engine block can crack and it'll severely damage radiators.
- Without the inhibitors, water does not provide corrosion or scale protection. Eventually this will create an insulating barrier on heat exchange surfaces or cause blockages in radiators.
- Tap water contains some impurities which can hinder inhibitor performance.

Please note:

Monoethylene glycol is toxic to both humans and animals, please follow the manufacturer's safety advice and dispose in accordance with government guidelines or seek advice from your local council.

**CONTAINS:
BITTERING AGENT**
HELPING PROTECT OUR CHILDREN



Intake Road • Bolsover Business Park
Bolsover • Derbyshire S44 6BB
T: +44 (0) 1246 823007 E: sales@aztecoils.co.uk

VI. 03/23

aztecoils.co.uk