

MAINTAIN

Maintenance and protection



**Antifreeze,
brake fluids and
service products**

*LUBRICANTS.
TECHNOLOGY.
PEOPLE.*



Around the clock reliability – at any temperature.

The FUCHS MAINTAIN range of workshop and service products is a comprehensive portfolio of coolant additives, brake fluids, screenwash and fuel additives.

These offer your vehicle optimum protection at all times – particularly in winter.

Our MAINTAIN products match with nearly every vehicle type and offer the best possible protection together with the latest technology.



MAINTAIN



GERMAN TECHNOLOGY

MAINTAIN
FRICOFIN

Kühlmittelzusatz
Coolant Additive

***Antifreeze.
For reliable protection
at any time of the year.***

Antifreeze must meet many requirements, as an average of around 150 liters of coolant are pumped through the cooling circuit of a typical passenger vehicle every minute. One third of the heat generated during combustion is dissipated into the atmosphere via the coolant. The coolant itself passes over more than 100 different materials and must be compatible with all of these.



Only premium products like the MAINTAIN FRICOFIN range offer certified safety and are capable of fulfilling all tasks and requirements expected of modern antifreeze, such as:

- Antifreeze, i.e. reliable prevention of liquids freezing, even at extremely low temperatures
- Protection from soiling/deposits to keep the entire cooling circuit working properly in the long term.
- Protection from overheating, for example if sufficient heat dissipation is no longer guaranteed due to soiling/deposits.
- Protection from aging and oxidation, so that the protective effect of the coolant remains intact throughout the entire duration of the respective service interval

and, particularly important:

- Corrosion protection to reliably eliminate the risk of damage to any metallic materials in the cooling circuit, such as cast iron, cast aluminium, steel and brass. Without proper coolant, the cooling system provides ideal conditions for corrosion thanks to its high temperatures and large volume of water. Deep rust spots/pitting can occur in the metal, potentially causing the coolant pump or the entire cooling system to fail. This can ultimately lead to extremely costly engine damage. The MAINTAIN FRICOFIN range of coolants reliably prevents corrosion. The key components here are so-called corrosion inhibitors. They bond with the metals in the cooling system and form a wafer thin, yet extremely strong protective layer on their surface.

Antifreeze

MAINTAIN FRICOFIN DP



Ultra high performance monoethyleneglycol-based coolant additive. Free of nitrites, amines and phosphates.
Product color: **pink - violet.**

Specifications:

AFNOR NF R 15-601 Type 1
ASTM D 3306 Type I
ASTM D 4985
BS 6580
CUMMINS CES 14603

Approvals:

DEUTZ DQC CC-14
MAN 324 Type Si-OAT
MB-APPROVAL 325.5
MB-APPROVAL 325.6

FUCHS Recommendations:

SCANIA TB 1451
VW TL 774-G



We regularly update and upgrade our specifications, approvals and recommendations between new brochures. Information and figures given here are typical of current production and conform to specification, minor variations may occur.

MAINTAIN FRICOFIN LL

Premium performance monoethyleneglycol-based coolant additive. Free of nitrites, amines, phosphates and silicates. Product color: **orange**

Specifications:

ASTM D 3306 Type I
ASTM D 4985
BS 6580
FORD WSS-M97-B44-D
KSM 2142

Approvals:

Bez.Reg.Arnsbg.
E62.12.22.64-2011-1
DAF 74002
DEUTZ DQC CB-14
MAN 324 SNF
MB-APPROVAL 325.3
MWM TR 0199-99-2091

FUCHS Recommendations:

AFNOR NFR 15-601 Type I
CUMMINS (ISBe engines at
DAF and Leyland)
GM 6277M; JASO M325
JIS K2234
KOMATSU AF-NAC
(ready mix)

FUCHS Recommendations:

LIEBHERR MD 1-36-130
NATO S-759
PSA B 71 5110
RENAULT Type D
VW TL 774 D/F (different color)
VOLVO 128 6083/002 (=VOLVO
TRUCKS, VOLVO CE, from MY 2005)
(Further information see Product Information)



Antifreeze

MAINTAIN FRICOFIN

Super high performance monoethyleneglycol-based coolant additive. Free of nitrites, amines and phosphates.
Product color: **blue-green**.

Specifications:

AFNOR NF R 15-601 Type 1
ASTM D 3306 Type I
ASTM D 4985
BS 6580:1992
BUNDESWEHR TL 6805-0038/1
SAE J1034

FUCHS Recommendations:

DAF 74001
LIEBHERR TLV 035/
TLV 23009 A
OPEL/GM B 040 0240
VW TL 774-C (G 11)

Approvals:

BMW GS 94000
(BMW N 600 69.0)
DEUTZ DQC CA-14
JENBACHER TA 1000-0201
MAN 324 NF
MAN 324 NF PRITARDER
MB-APPROVAL 325.0
MTU MTL 5048
MWM TR 0199-99-2091
PN-C 40007:2000
VOITH TURBO 172.00225010



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MAINTAIN FRICOFIN -35



Super high performance ready-mixed monoethyleneglycol-based coolant with frost protection down to -35°C . Free of nitrites, amines and phosphates. Product color: **blue-green**.

Specifications:

AFNOR NF R 15-601 Type 3
ASTM D 3306 Type III
ASTM D 4985
BS 6580:1992

FUCHS Recommendations:

PN-C 40007:2000
VOITH TURBO 172.00225010
VW TL 774-C (G 11)

Approvals:

DEUTZ DQC CA-14
MB-FREIGABE 326.0

FUCHS Recommendations:

BMW GS 94000
(BMW N 600 69.0)
DAF 74001
JENBACHER TA 1000-0201
LIEBHERR TLV 035/
TLV 23009 A
MAN 324 NF
MAN 324 NF PRITARDER
MTU MTL5048
MWM TR 0199-99-2091
OPEL/GM B 040 0240



Antifreeze

MAINTAIN FRICOFIN V



Ultra high performance monoethyleneglycol-based coolant additive. Free of nitrites, amines and phosphates.
Product color: pink - violet.

Specifications:

ASTM D 3306 Type I
BS 6580

Approvals:

VW TL 774 J (G13)

FUCHS Recommendations:

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MAINTAIN FRICOFIN HDD



Ultra high performance monoethyleneglycol-based engine coolant concentrate with low silicate technology. Free of amines and phosphates. Product color: **yellow**.

Specifications:

ASTM D 3306 Type I
ASTM D 4985, D 6210 Type I-FF
AS/NZS 2008:2004 Type A
BS 6580
CHRYSLER MS 7170
CHRYSLER MS 9769
DETROIT DIESEL 7SE298
FORD ESE-M97B44-A
FORD ESE-M97B18-C
FORD WSS M97B51-A1
GM 1825M & GM 1899M
JIS K2234
MACK 014GS17004

Approvals:

DETROIT DIESEL 93K217
MTU MTL 5048

FUCHS Recommendations:

CASE MS 1710
CATERPILLAR EC1
CUMMINS CES 14603
FREIGHTLINER 48-2288D

FUCHS Recommendations:

IVECO 18-1830
KENWORTH RO26-170-97
MAN 324 N
NEW HOLLAND WSN-
M97B18-D
PACCAR CS 0185,
TOYOTA Motor Corp. RP 329



Antifreeze

MAINTAIN FRICOFIN S



High performance monoethyleneglycol-based coolant additive. Free of nitrites, amines and phosphates. Product color: **light green**.

Specifications:

ASTM D 3306 Type I

BS 6580:1992

Approvals:

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FUCHS Recommendations:

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MAINTAIN



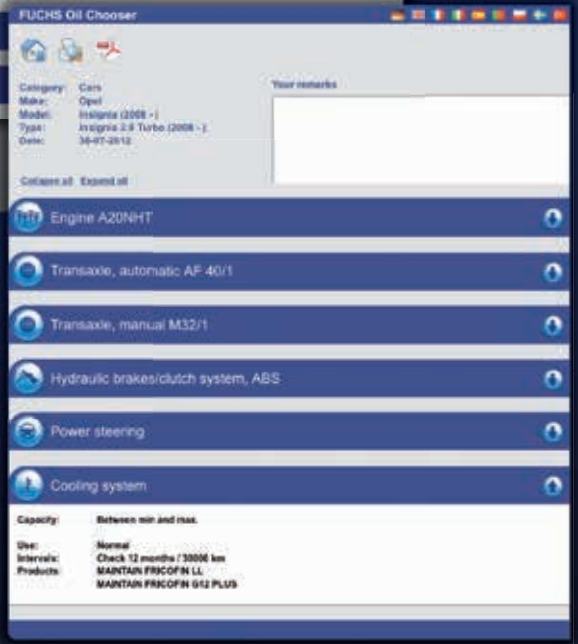
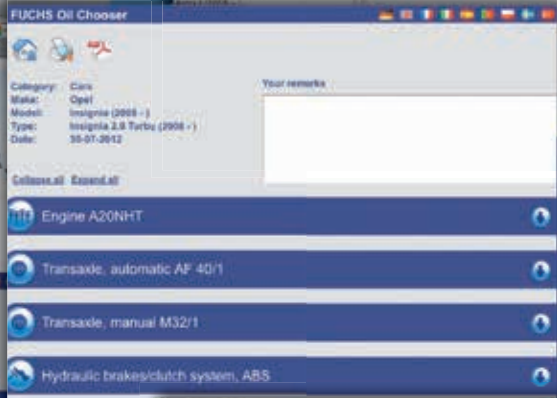
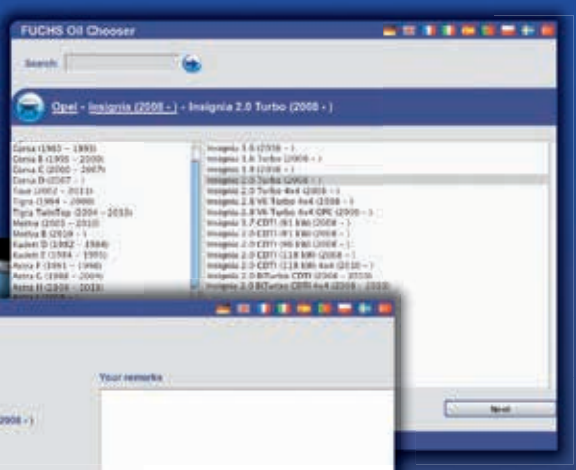
Antifreeze

Find the right antifreeze for your vehicle with the online oil chooser from FUCHS.



It could hardly be easier. Simply navigate to www.fuchs-europe.de and then click on the „Oil Chooser“ menu item. Choose your vehicle type (for example passenger car) and select the appropriate make and model. A window then appears with an overview of the optimum lubricants to your vehicle. All you have to do now is to click on the appropriate application (in this case: „cooling system“) and the required product for your vehicle will be shown.

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***Brake fluids.
Safe and reliable
in any situation.***



Brake fluids are special hydraulic fluids that are used to transfer the pedal force applied during braking to the brake cylinder.

These important liquids must meet strict requirements:

- A high boiling point offers safety in extreme conditions, such as the kinds of very high temperatures that can occur when driving down steep hills. The boiling point describes the characteristic of the sealed new brake fluid. Brake fluids have boiling points of 230°C (DOT 4) or 260°C (DOT 5.1).
- Lowest possible drop in boiling point due to water absorption (high wet-boiling point). The wet-boiling point describes the characteristic at the end of the liquid's life-cycle. Wet-boiling point as per the DOT specifications: DOT 4: 170°C and DOT 5.1: 180°C.
- Optimum corrosion protection for the system.
- Extensive compatibility with all materials used in the braking system, such as plastics, rubber or metals.

The FUCHS MAINTAIN DOT 4 and DOT 5.1 brake fluids are high performance fluids that fulfill or exceed all requirements.

Always have your brake fluid checked every 2 years and replaced as necessary.

After all, safety is the top priority.

Brake fluids

MAINTAIN DOT 5.1



Ultra high performance brake fluid for hydraulic brake and clutch systems in passenger vehicles, trucks and motorcycles.

Specifications:

FMVSS NR. 116 DOT 5.1

ISO 4925 CLASS 3/4/5.1

SAE J 1703/J 1704

Approvals:

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FUCHS Recommendations:

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MAINTAIN

MAINTAIN DOT 4



Super high performance brake fluid for hydraulic brake and clutch systems in passenger vehicles, trucks and motorcycles.

Specifications:

FMVSS NR. 116
DOT 3/DOT 4
ISO 4925 CLASS 3/4
SAE J 1703/J 1704

Approvals:

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FUCHS Recommendations:

FORD M6C62-A
FORD M6C9103-A
NH 800 A
OPEL 19 42 421



Washer fluid additive

***Washer fluid additive.
A clear view at all times.***

Removes grease and grime. Helps maintain a clear view at all times. Even a thin film of soiling on the windshield can cause blind spots for several seconds. Maintaining a clear and smear-free windshield provides extra safety, particularly when driving at night, in difficult weather conditions or when blinded by light, such as driving towards the setting sun in winter. MAINTAIN CLEAN-SCREEN removes typical windshield soiling quickly and without any smearing.



MAINTAIN CLEAN-SCREEN

Year-round cleaning and antifreeze additive for the windshield wiper system. Suitable for jet nozzles and polycarbonate windshields.

Benefits:

- Biodegradable.
- Highly effective cleaning.
- Smear-free windows.
- Suitable for jet nozzles.
- Suitable for polycarbonate windshields.
- Pleasant scent.
- Concentrate.



Fuel additive

***Fuel additive.
Gets any diesel engine
ready for winter.***

It is important to plan ahead to prevent problems during start-up and operation caused by paraffin separation.



MAINTAIN WINTERFIT



Super high performance diesel fuel and fuel oil additive for protection against paraffin separation caused by extremely cold conditions.

Benefits:

- Burns off completely without any residue.
- Ignitability is not compromised.
- No reduction in viscosity, thereby preventing pump wear.
- Can be mixed with and is fully compatible with all diesel fuels (except for biodiesel), as well as EL fuel oils.



***Fuel additive.
Improves all
diesel fuels.***

It is important to plan ahead to prevent problems during start-up and operation caused by increased biogenic additives to the diesel fuel or low-quality fuels (for example outside the EU).



MAINTAIN DIESEL EFFECT

High performance gasoline additive concentrate for cleaning the fuel and intake system. Recommended for continuous use.

Benefits:

- Can be used all year round.
- Maintains engine output.
- Reduces fuel consumption.
- Reduces exhaust emissions.
- Improves diesel fuels (as per DIN EN 590).
- Improves biodiesel fuels (as per DIN EN 14214).
- Improves diesel fuels with increased substitute material concentrations (types B7 to B100).
- Offers corrosion protection.
- Offers protection from aging.
- Offers protection from soiling/deposits.
- Removes existing deposits in the tank, fuel lines, injectors, combustion chamber and valves.
- Improves demulsibility.
- Can render the use of biocides superfluous.



Gasoline additive improves any gasoline fuel.

Fuels with high sulfur content (for example outside the EU), a high proportion of bioethanol (more than 10%) or of generally low quality often have a negative impact on start-up behavior, combustion and operational reliability. Many fuels are also sold without any additives. To prevent issues such as soiling deposits, any vehicle owner can take action on their own before problems occur.



MAINTAIN GASOLINE PLUS

High performance gasoline additive concentrate for cleaning the fuel and intake system. Recommended for continuous use.

Benefits:

- Recommended for multi-point injection engines.
- Recommended for direct-injection engines.
- Recommended for carburettor and two-stroke engines.
- Excellent removal of soiling/deposits in the combustion chamber, valves, intake system, injectors, fuel lines and fuel tank.
- Excellent „keep clean“ and „clean up“ performance.
- Very good corrosion protection.
- Very good water separation.
- Metal-free and ashless technology.
- Burns off without any residue.
- Gentle on catalytic converters.
- For all standard commercial gasoline fuels.
- For gasoline fuels up to E20.
- Maintains engine output.
- Saves fuel.
- Particularly recommended for low-grade fuels.
- Particularly recommended for continuous use.

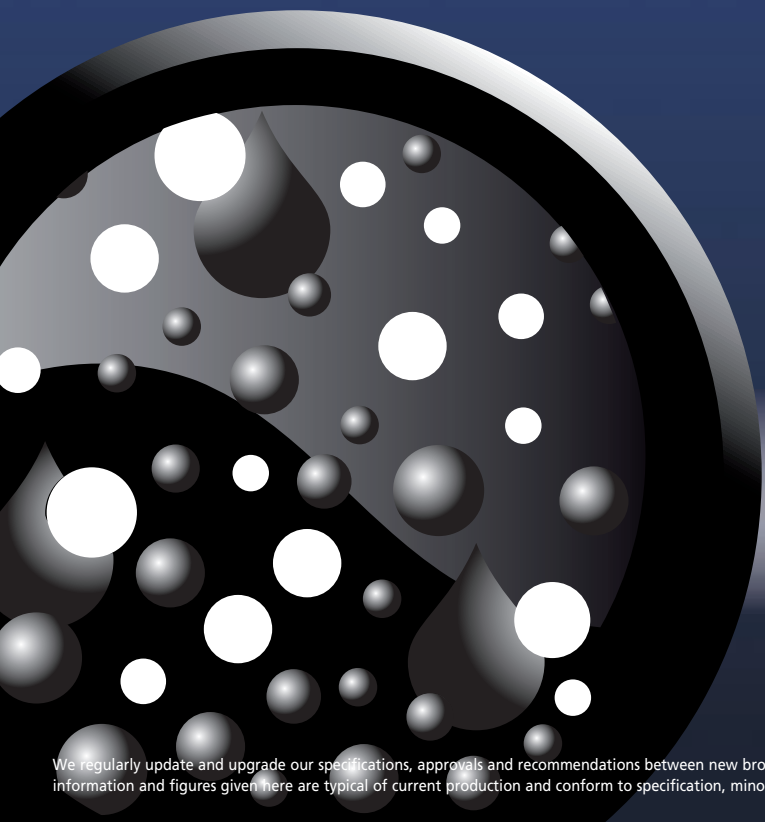


Oil binder

***Oil binder.
Offers reliable protection
from environmental damage.***

MAINTAIN ABSORPEX is a granular mineral oil binder with extremely high absorption capacity that is used to combat oil pollution and other chemicals in both the indoor and outdoor arena, for example in the case of oil spills on road surfaces or leaks on solid ground. It offers good skid resistance even when fully saturated and, thanks to its fine grain, penetrates even the smallest cracks and recesses.

MAINTAIN ABSORPEX is free of asbestos and similar fibrous materials.



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MAINTAIN ABSORPEX Oil binder



Oil binder type III R, chemical binder.

Specifications:

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Approvals:

Reported by Hygiene Institut
Gelsenkirchen MPL

FUCHS Recommendations:

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For your notes.

Note

The information contained in this product information leaflet is based on the experience, knowledge and expertise of FUCHS EUROPE SCHMIERSTOFFE GMBH in the development and manufacturing of lubricants and represents the current state of the art. The performance of our products can be influenced by a series of factors, especially the specific use, the method of application, the operational environment, component pretreatment, possible external contamination, etc. For this reason, universally valid statements about the function of our products are not possible. The information given in this product information represents general, non-binding guidelines. No warranty expressed or implied is given concerning the properties of the product or its suitability for any given application.

We therefore recommend that you consult a FUCHS EUROPE SCHMIERSTOFFE GMBH application engineer to discuss application conditions and the performance criteria of the products before the product is used. It is the responsibility of the user to test the functional suitability of the product and to use it with the corresponding care.

Our products are subject to continuous further development. We therefore retain the right to change our product program, the products, and their manufacturing processes as well as all details of our product information sheets at any time and without warning. With publication of this product information leaflet, all previous editions cease to be valid.

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