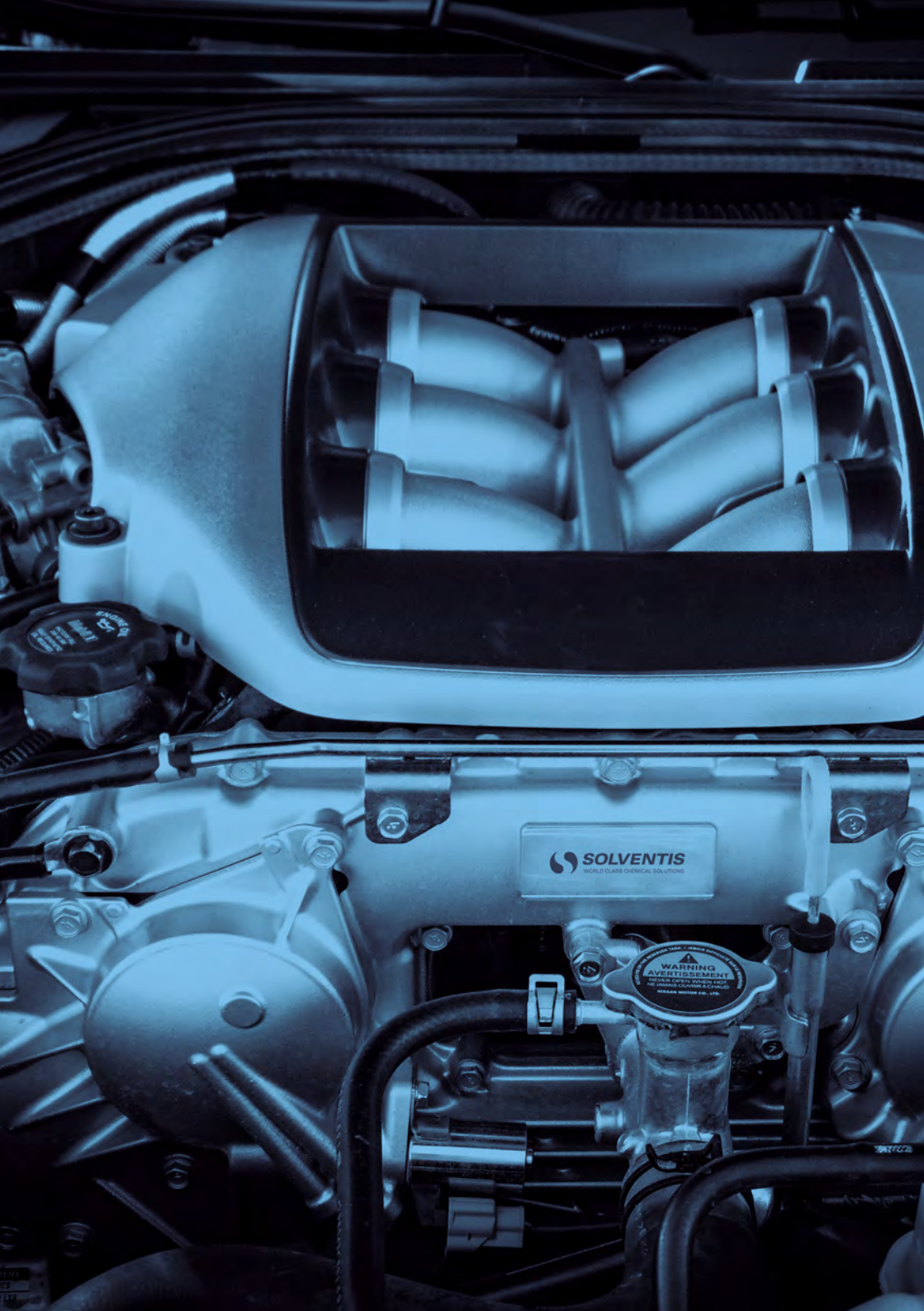


Coolants, Brake Fluids and Screenwash

Product Brochure





SOLVENTIS
WORLD CLASS CHEMICAL SOLUTIONS

WARNING
AVERTISSEMENT
POUR LA SÉCURITÉ DE L'UTILISATEUR
POUR LA SÉCURITÉ DE L'UTILISATEUR
POUR LA SÉCURITÉ DE L'UTILISATEUR
POUR LA SÉCURITÉ DE L'UTILISATEUR



Contents

Coolants 6

C2230 Mineral additive coolant	10
C2210 Economical mineral coolant	11
C2053 Premium OAT coolant	12
C2054 Standard OAT coolant	13
C2153 Premium Si-OAT coolant	14
C2353 Premium Si-OAT coolant containing glycerine	15
AL-39 Military specification coolant	16
C2180 Heavy Duty nitrited OAT coolant	17
C2190 Universal OAT coolant	18
C2250 Nitrited Heavy Duty hybrid coolant	19
C2270 Premium Hybrid coolant (Nitrite-free)	20
C3053/C3055 MPG Premium OAT coolant	21
C3270 Hybrid MPG Coolant	22
Chilltec 100 Food Safe Heat Transfer Fluid	23

Brake Fluids 24

DOT3 XD230	28
DOT3 XD240 Premium	29
DOT4 XHD255	30
DOT4 XHD260 Premium	31
DOT4 LV OEM Standard	32
Super DOT4 OEM Standard	33
DOT5.1	34
LHM Plus OEM Standard	35

Screenwash 36

Solscreen	38
-----------	----

World Class Chemical Solutions



SOLVENTIS

WORLD CLASS CHEMICAL SOLUTIONS

Solventis offers an extensive range of automotive coolants, brake fluids and screenwash. These products are formulated to meet the exacting needs of modern high performance vehicles.

Solventis is one of the largest producers of high-quality coolants, brake fluids and screenwash in Europe.

From our purpose built, state of the art manufacturing facility in the port of Antwerp and our specialist centre in the North of England we produce a comprehensive range of outstanding automotive products which we offer in bulk, IBCs and drums throughout Europe and to certain export markets.





Coolants

Modern engine coolants are more than just antifreeze. As well as providing protection against frost in winter months, our coolants offer efficient corrosion protection for the range of metals found in modern automotive cooling systems, meaning better performance and a longer life for your engine.

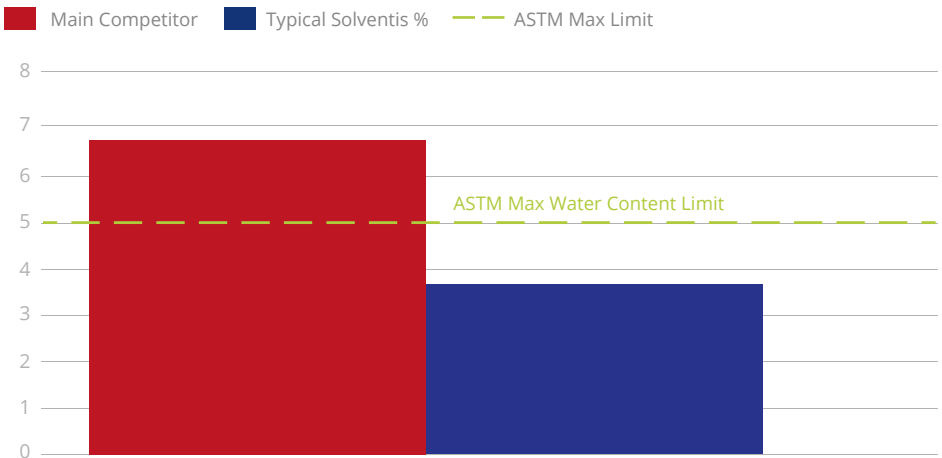
We produce a wide range of coolants to cover the requirements of all cooling systems, whether constructed from traditional ferrous materials or the more modern aluminium alloy and polymeric composites. The compatibility with elastomers, plus low foaming and low scaling characteristics of our products ensure maximum heat transference making our range among the very best on the market.



At Solventis, we pride ourselves on the exceptional quality and suitability of our coolants. By using high quality raw materials and specialist formulations we ensure that our fluids not only meet but easily exceed the requirements set out by relevant standards.

Water content is maintained well below the flagship specification for glycol based engine coolants (ASTM D3306 (USA)) thus ensuring the anti-boiling and freeze protection characteristics are robust.

How much water is in your coolant concentrate?



*Source: Tests carried out by Independent Laboratory Amalgatech

Super Concentrate Products

Solventis offer a comprehensive range of super concentrated coolants. These are highly concentrated additive packages designed to prepare quality engine coolant concentrate (antifreeze) by the addition of monoethylene glycol.

These products have different advantages which can be tailored to the priorities of the customer.

For typical data properties and further information about these advantages please contact your account manager or send your enquiry to automotive@solventis.net.

Solventis Coolant Application Reference Chart

Below is a guide to help with finding the appropriate product by application. Further information regarding suitability can be found within this booklet and our technical data sheets.

Should you require further assistance please email for technical support (automotive@solventis.net).

									
	Passenger vehicles	Light commercial vehicles	Heavy goods vehicles	Construction agricultural	Marine	Industrial	Food processing	Renewables / Eco	MOD approved
C2210	✓	✓							
C2230	✓	✓							
C2053	✓	✓	✓	✓	✓	✓			
C2054	✓	✓	✓	✓	✓	✓			
C2153	✓	✓	✓	✓	✓				
C2353	✓	✓							
C2180	✓	✓	✓	✓	✓				
C2250	✓	✓	✓	✓	✓				
C2270	✓	✓	✓	✓	✓				
C3053 MPG	✓	✓	✓	✓	✓	✓		✓	
C3270 MPG	✓	✓	✓	✓	✓				
C2190	✓	✓							
D3353 - 50								✓	
AL-39									✓
Chilltec 100							✓		

Original Equipment Manufacturers

The range of high-quality coolants Solventis produces meets the performance requirements of a wide range of Original Equipment Manufacturer standards.

Within our Technical Data Sheets many suitable applications are listed, however, if you require advice for a specific OEM application not mentioned here please contact your account manager or email us at automotive@solventis.net.

C2230 Coolant Concentrate (Inorganic Additive Technology)

Ethylene glycol based coolant concentrate formulated for use in all engines, including those constructed from aluminium alloys.

Recommended coolant for general purpose light duty automotive applications.

Coolant application



Specifications

- | | |
|-----------------------------|---|
| ■ AFNOR NF R15-601 (France) | ■ ONORM V 5123 (Austria) |
| ■ AS 2108 (Australia) | ■ C2230 successfully passes the FVW Heft R443 tests (Germany) |
| ■ ASTM D3306 (USA) | ■ SAE J1034 (USA) |
| ■ BS 6580: 2010 (UK) | ■ UNE 26361-88 (Spain) |
| ■ CUNA NC 956-16 (Italy) | |

Features

- Long established robust formulation
- Excellent compatibility
 - Technology based on silicates and borates
- Uses sophisticated silicate stabilisation technology
- Contains no nitrites, amines or phosphates (NAP free)
- Excellent anti foaming characteristics
- Available in concentrate or ready to use

Benefits

- Peace of mind for quality and performance
- Provides anti-corrosion protection for all metals and alloys in cooling systems of older and modern vehicles alike
- Avoids potential gel formation
- User and environmentally friendly
- Helps protect the water pump and cooling components
- Added convenience to the end user and versatile in various environmental climates



C2210 Coolant Concentrate (Inorganic Additive Technology)

C2210 is an ethylene glycol based engine coolant concentrate formulated for use in all engines, including those constructed from aluminium alloys.

C2210 is specifically formulated to exceed the requirements of BS 6580: 2010 (UK) and is recommended for consumers that require a more economical solution.

Coolant application



Specifications

- BS 6580: 2010 (UK)
- ASTM D3306 (USA)

Features

- Market entry product
- Excellent compatibility
- Technology based on silicates and borates
- Uses sophisticated silicate stabilisation technology
- Contains no nitrites, amines or phosphates (NAP free)

Benefits

- Accommodates a budget price point
- For use with hard water and a wide range of engine materials
- Peace of mind
- Avoids potential gel formation
- User and environmentally friendly

C2053 Coolant Concentrate (Organic Additive Technology)

This premium ethylene glycol based engine coolant uses organic additive technology (OAT) to provide long lasting corrosion protection.

This flagship coolant is your choice for application against VW G12, VW G12+, MB 325.3, MAN 248 SNF, Volvo VCS, DAF 74002, GM 6277M, Ford WSS-M97B44D and Renault Type D specifications.

Coolant application



Specifications

- | | |
|-----------------------------|--------------------------|
| ■ AFNOR NF R15-601 (France) | ■ CUNA NC 956-16 (Italy) |
| ■ AS 2108 (Australia) | ■ FVW Heft R443 |
| ■ ASTM D3306 (USA) | ■ SAE J1034 (USA) |
| ■ ASTM D4985 (USA) | ■ UNE 26361-88 (SPAIN) |
| ■ BS 6580: 2010 (UK) | |

Features

- High-performance Long-Life OAT formulation
- Contains no nitrites, amines, phosphates, borates or silicates
- C2053 is an extended life antifreeze
 - Up to 250,000 km for passenger vehicles
 - Up to 1,000,000 km for trucks
- Available in concentrate and ready to use

Benefits

- Meets various European original equipment manufacturers requirements
- User and environmentally friendly
- Minimises downtime and reduces service and maintenance costs
- Added convenience to the end user and versatile in various environmental climates
- Extremely stable formulation



C2054 Coolant Concentrate (Organic Additive Technology)

Specially formulated to provide a competitively priced product suitable for both petrol and diesel engines, C2054 coolant concentrate uses the latest organic additive technology (OAT) in combination with monoethylene glycol. Whilst being exceptional value, C2054 meets or exceeds core European and international standards.

Coolant application



Specifications

- AFNOR NF R15-601 (France)
- AS 2108 (Australia)
- ASTM D3306 (USA)
- BS 6580: 2010 (UK)
- CUNA NC 956-16 (Italy)
- SAE J1034 (USA)
- UNE 26361-88 (SPAIN)

Features

- Economical OAT formulation
- It contains no nitrites, amines, phosphates, borates or silicates
- Excellent anti-foaming characteristics
- Improved anti-corrosion protection

Benefits

- Accommodates a budget price point that offers 3 years of corrosion protection
- User and environmentally friendly
- Helps protect the water pump and cooling components
- Suitable for metals and alloys used in cooling systems of modern vehicles, especially aluminium components
- Extremely stable formulation

C2153 Coolant Concentrate (Silicated Organic Additive Technology)

This premium ethylene glycol based coolant concentrate uses the latest organic additive technology (OAT) together with silicate to provide optimum corrosion protection for the latest high-performance lightweight alloy engines.

C2153 is our recommended coolant against the following specifications : VW G12++, MAN 248 Si-OAT, MB 325.5 and 325.6 specifications.

Coolant application



Specifications

- | | |
|-----------------------------|--------------------------|
| ■ AFNOR NF R15-601 (France) | ■ CUNA NC 956-16 (Italy) |
| ■ AS 2108 (Australia) | ■ FVW Heft R443 |
| ■ ASTM D3306 (USA) | ■ SAE J1034 (USA) |
| ■ ASTM D4985 (USA) | ■ UNE 26361-88 (Spain) |
| ■ BS 6580: 2010 (UK) | |

Features

- Formulation that combines both premium OAT and silicate inhibitor technology
- Corrosion inhibitors which have a very low depletion rate
- Available in concentrate and ready to use
- Free from borates, phosphates, nitrites and amines

Benefits

- Meets most European and international standards
- Extended change intervals minimising downtime and reducing service and maintenance costs
- Added convenience to the end user and versatile in various environmental climates
- User and environmentally friendly



C2353 MEG and Glycerine Based Silicated OAT Coolant Concentrate

This premium coolant concentrate uses the same inhibitor package as C2153 (OAT plus silicate), but MEG is partly replaced with glycerine which makes this a product containing more raw materials from sustainable origins.

C2353 meets the requirements of the VW G13 specification.

Coolant application



Specifications

- | | |
|-----------------------------|--------------------------|
| ■ AFNOR NF R15-601 (France) | ■ CUNA NC 956-16 (Italy) |
| ■ AS 2108 (Australia) | ■ FVW Heft R443 |
| ■ ASTM D3306 (USA) | ■ SAE J1034 (USA) |
| ■ ASTM D4985 (USA) | ■ UNE 26361-88 (Spain) |
| ■ BS 6580: 2010 (UK) | |

Features

- Formulation that combines both OAT and silicate inhibitor technology
- Corrosion inhibitors which have a very low depletion rate
- Available in concentrate and ready to use
- Free from borates, phosphates, nitrites and amines

Benefits

- Meets most European and international standards
- Extended change intervals minimising downtime and reducing service and maintenance costs
- Added convenience to the end user and versatile in various environmental climates
- User and environmentally friendly
- MEG partly replaced by glycerine from more sustainable origin

AL-39 Coolant Concentrate (Organic Additive Technology)

AL-39 coolant concentrate uses organic additive technology (OAT) in combination with monoethylene glycol.

Suitable for petrol and diesel engines and formulated in accordance with UK Military specification DEF STAN 68-127 (NATO S-757).

Coolant application



Specifications

- | | |
|-----------------------------|------------------------|
| ■ AFNOR NF R15-601 (France) | ■ DEF STAN 68-127 |
| ■ AS 2108 (Australia) | ■ FVW Heft R443 |
| ■ ASTM D3306 (USA) | ■ NATO S-757 |
| ■ ASTM D4985 (USA) | ■ SAE J1034 (USA) |
| ■ BS 6580: 2010 (UK) | ■ UNE 26361-88 (Spain) |
| ■ CUNA NC 956-16 (Italy) | |

Features

- Extended coolant life / low depletion rate
- DEF STAN 68-127 and NATO S-757 approved
- Contains no nitrites, amines, phosphates, borates or silicates and no other mineral additives

Benefits

- Minimises downtime – reduced service costs
- Minimises scaling within the coolant system, improving cooling efficiency
- Better protection for water pump joints
- Meets the rigorous international standards for military use
- User and environmentally friendly



C2180 Heavy-Duty Coolant Concentrate

(Organic Additive Technology)

This premium heavy-duty ethylene glycol based, nitrited OAT coolant uses the latest inhibitor technology. This ensures optimum corrosion protection for high performance, cast iron, heavy-duty engines. C2180 offers excellent protection against cavitation-erosion corrosion.

C2180 is particularly suitable for use in all heavy duty applications that recommend the use of nitrite, like CAT EC-1, Cummins and most other US heavy duty vehicle manufacturers.

Coolant application



Specifications

- AFNOR NF R15-601 (France)
- AS 2108 (Australia)
- ASTM D3306 (USA)
- ASTM D4985 (USA)
- ASTM D6210 (USA)
- BS 6580: 2010 (UK)
- Chinese Standard GB 29743-2013 (China)
- CUNA NC 956-16 (Italy)
- FVW Heft R443
- SAE J1034 (USA)
- UNE 26361-88 (Spain)

Features

- Extended life coolant
 - Up to 250,000 km for passenger vehicles
 - Up to 1,000,000 km for trucks and commercial vehicles
- Heavy duty nitrite containing OAT technology
- Available in concentrate and ready to use

Benefits

- Minimises downtime and reduces service and maintenance costs
- Particularly well suited for construction equipment applications
- Added convenience to the end user and versatile in various climatic environments

C2190 Universal Coolant (Organic Additive Technology)

This ethylene glycol based engine coolant concentrate uses Organic Acid Technology (OAT) and has been specifically formulated to provide excellent continued corrosion protection even when mixed with other types of coolant technology.

This is an excellent product choice for retail / fast-fit centres.

Coolant application



Specifications

- | | |
|-----------------------------|--------------------------|
| ■ AFNOR NF R15-601 (France) | ■ CUNA NC 956-16 (Italy) |
| ■ AS 2108 (Australia) | ■ NATO S-759 |
| ■ ASTM D3306 (USA) | ■ SAE J1034 (USA) |
| ■ ASTM D4985 (USA) | ■ UNE 26361-88 (Spain) |
| ■ BS 6580: 2010 (UK) | |

Features

- Universal top up applications
- Clear in colour
- Universal compatibility
- Available in concentrate and ready to use

Benefits

- Ideal as a single product offering in retail environments
- Will not taint existing product in reservoirs
- Peace of mind without any risk when topping up



C2250 Coolant Concentrate (Hybrid Technology)

C2250 is an ethylene glycol based hybrid engine coolant concentrate formulated for optimum performance in heavy duty diesel engine applications. The inhibitors in C2250 include organic acids in combination with borate, silicate and nitrite which are well known for their ability to provide excellent protection against cavitation erosion-corrosion. C2250 complies with ASTM D6210 (USA).

C2250 is especially recommended for use in heavy duty vehicles that have been using similar coolant technology.

Coolant application



Specifications

- | | |
|-----------------------------|--------------------------|
| ■ AFNOR NF R15-601 (France) | ■ CUNA NC 956-16 (Italy) |
| ■ AS 2108 (Australia) | ■ JIS K 2234 (Japan) |
| ■ ASTM D3306 (USA) | ■ ONORM V 5123 (Austria) |
| ■ ASTM D6210 (USA) | ■ SAE J1034 (USA) |
| ■ BS 6580: 2010 (UK) | ■ UNE 26-361 (Spain) |

Features

- Use of sophisticated silicate stabilisation technology
- Available in concentrate and ready to use
- Contains organic additives in combination with borate, silicate and nitrite
- Excellent anti-foaming characteristics

Benefits

- Ensures good compatibility with hard water
- Added convenience to the end user and versatility for various environmental climates
- These inhibitors are known to provide excellent protection in heavy duty applications, particularly where there is potential for cavitation erosion-corrosion to occur
- Helps protect the water pump and cooling components

C2270 Coolant Concentrate (Hybrid Technology)

C2270 is a premium ethylene glycol based engine coolant concentrate formulated for optimum performance in all engines including heavy duty diesel engine applications. It employs hybrid inhibitor technology and is nitrite, amine and phosphate free.

The inhibitors in C2270 include organic acids in combination with borate and silicate, which is a well proven inhibitor pack renowned for its ability to provide excellent corrosion protection.

C2270 is an excellent choice for classic cars due to the compatibility of the specialised inhibitors employed. Moreover, it can be used against the MB 325.0, MAN 324 NF, VW G11, BMW GS 94000 and Opel B040 0240 requirements.

Nitrite Free

Coolant application



Specifications

- | | |
|-----------------------------|--------------------------|
| ■ AFNOR NF R15-601 (France) | ■ JIS K 2234 (Japan) |
| ■ AS 2108 (Australia) | ■ ONORM V 5123 (Austria) |
| ■ ASTM D3306 (USA) | ■ SAE J1034 (USA) |
| ■ BS 6580: 2010 (UK) | ■ UNE 26-361 (Spain) |
| ■ CUNA NC 956-16 (Italy) | |

Features

- C2270 is free from nitrites, amines and phosphates (NAP free)
- Contains organic additives in combination with borate and silicate
- Use of sophisticated silicate stabilisation technology
- Available in concentrate and ready to use

Benefits

- User and environmentally friendly
- Provides excellent protection across a wide range of applications
- Ensures good compatibility with hard water
- Added convenience to the end user and versatility for various environmental climates



C3053/C3055 Coolant Concentrate (MPG OAT Technology)

C3053/C3055 is a low toxicity engine coolant concentrate based on mono propylene glycol and is suitable for both petrol and diesel engines. This product employs organic additive technology (OAT).

C3053/C3055 is also suitable for non-automotive applications including renewable applications such as solar powered installations and heat transfer systems.

This coolant is the low toxicity variant of C2053 and can technically replace it for all the claims mentioned under C2053.

Coolant application



Specifications

- ASTM D3306 (USA) Type II
- BS 6580: 2010 (UK)
- AFNOR NF R15-601 (France)

Features

- Contains no nitrites, amines, phosphates, borates and silicates
- Low toxicity formulation
- Available in concentrate and ready to use
- C3053/C3055 is an extended life antifreeze
 - Up to 250,000 km for passenger vehicles
 - Up to 1,000,000 km for trucks

Benefits

- Environmentally friendly
- User friendly
- Added convenience to the end user and versatility for various environmental climates
- Minimises downtime and reduces service and maintenance costs

C3270 Coolant Concentrate (MPG NAP Free Hybrid Technology)

This revolutionary coolant is made from mono propylene glycol (MPG) making it significantly less toxic than traditional ethylene glycol based products but without reducing performance. It uses hybrid additive technology.

Exceeds the requirements of BS 6580: 2010 (UK), AFNOR NF R15-601 (France) and ASTM D3306 (USA) Type III.

Coolant application



Specifications

- | | |
|-----------------------------|--|
| ■ ASTM D3306 (USA) Type II | ■ Hard water compatibility tests of Volvo, Volkswagen and Mercedes |
| ■ ASTM D4985 (USA) | ■ Opel 'hot finger' test |
| ■ SAE J1034 (USA) | ■ Volvo 4000hr heat cycled test |
| ■ BS 6580: 2010 (UK) | ■ Ford 672hr dynamometer test |
| ■ AFNOR NF R15-601 (France) | |

Features

- C3270 is free from nitrites, amines and phosphates (NAP free)
- MPG low toxicity formulation
- Excellent hard water resistance
- Excellent anti-foaming characteristics

Benefits

- Environmentally friendly
- User friendly
- Minimises scaling within the coolant system improving cooling efficiency
- Helps protect the water pump and cooling components



Chilltec 100 Heat Transfer Fluid (Food Safe)

Chilltec 100 is a specialist inhibited propylene glycol fluid for use in HVAC (Heating, Ventilation, Air Conditioning systems), industrial heat transfer systems and food industry chilling/freezing systems.

It provides superior corrosion protection by way of buffering the organic acids that form during system operation.

Adding Chilltec 100 significantly lowers your system maintenance requirements and increases its heat transfer fluid life expectancy. This product is registered and accredited by NSF International.



Coolant application



Specifications

- Chilltec 100 – NSF Registration Number 158956 Category: HT1
- Chilltec 50 – NSF Registration Number 159955 Category: HT1
- Chilltec 35 – NSF Registration Number 158954 Category: HT1

Features

- Available in both concentrate (Chilltec 100) ready to use (Chilltec 35 and Chilltec 50)
- NSF food safe accreditation
- Excellent freeze protection
- Clear in colour

Benefits

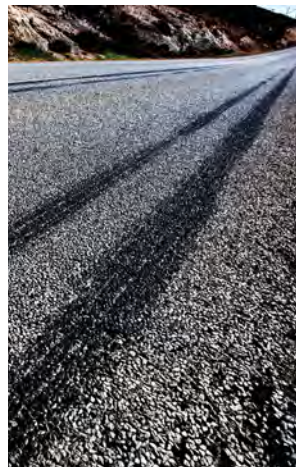
- Added convenience to the end user and versatility in various environmental climates
- Tested and approved by NSF offering peace of mind in case of incidental food contact
- Protects your systems down to -50°C Eliminates the cost and nuisance associated with freeze damage
- Will not taint any material it encounters



Brake Fluids

Brake fluids must meet the most rigorous performance standards. Critical factors include dry and wet equilibrium reflux boiling points, viscosity, pH, rubber swell and material compatibility with braking system components.

Solventis brake fluids exceed the world's toughest standards, including those set by the Department of Transportation's National Highways Traffic Safety Administration (DOT NHTSA), the Society of Automotive Engineers (SAE) and the International Organisation for Standardisation (ISO). Fluids are available in a range of equilibrium reflux boiling points to suit individual customer requirements.



Brake Fluids

Our hydraulic brake fluids are glycol ether based and formulated to exceed the requirements of major internationally recognised hydraulic brake fluid standards. Critical factors include dry and wet equilibrium reflux boiling points, viscosity, pH, rubber swell and material compatibility with braking system components.

Our products and standards

Products	Ref	ERBP (°C) Typical	WERBP (°C) Typical	Viscosity @-40 °C (mm ² /s)	Viscosity @100 °C (mm ² /s)
DOT3 XD230	B3230	243	143	1150	1.9
DOT3 XD240	B3240	252	148	1250	2.1
DOT4 XHD255	B4255	261	158	1270	2.1
DOT4 XHD260	B4260	264	164	1180	2.2
DOT4 LV	B4LV	270	170	665	2.2
Super DOT4	B4SUP	270	181	998	2.3
DOT5.1	B55XX	275	185	776	2.3

Storage and Handling

Brake fluids can be stored in bulk mild steel tanks and drums. The use of a dessicant unit in the tank vent is recommended to prevent the absorption of moisture during storage.

The use of appropriate personal protective equipment is recommended (see the product SDS for details).

Attention must be paid to the avoidance of contamination of brake fluids. Water will dramatically lower the boiling point of the fluid, reducing safety margins. Contamination with mineral oil based products can result in degradation of system seals and potential failure.



DOT3 XD230

A high quality hydraulic brake fluid. A glycol ether based fluid, formulated to exceed the requirements of the major internationally recognised hydraulic brake fluid standards.

Application

It has all the properties required to ensure safe and reliable operation of vehicle braking systems.

Standards

- FMVSS No 116 DOT3
- SAE J1703
- ISO 4925 Class 3

Features and Benefits

- **High Boiling Point** – minimises the risk of vapour lock under extreme conditions
- **Optimal Viscosity** – ensures system responsiveness is maintained in very cold conditions whilst adequate lubricity and leakage prevention are maintained at high operating temperatures
- **Corrosion Inhibition** – protects the full range of metallic components in the braking system from corrosion damage and potential system failure
- **Rubber Compatibility** – maximises the working life of system seals to ensure safe system operation
- **Fluid Compatibility** – can be safely mixed with other brake fluids meeting the DOT3 specification

Parameter	Method	DOT3 XD230	FMVSS116
Appearance	Visual	Pale straw coloured liquid, free from suspended matter	Not Specified
Density @ 20°C, g/cm ³	ASTM D4052	1.035	Not specified
Equilibrium Reflux Boiling Point, °C	SAE J1703	243	205 min
Wet Equilibrium Reflux Boiling Point, °C	SAE J1703	143	140 min
-40°C Kinematic Viscosity, mm ² /s	ASTM D7042	1150	1800 max
100°C Kinematic Viscosity, mm ² /s	ASTM D7042	1.85	1.5 min
pH (50% vol.)	SAE J1703	8.0	7.0–11.5
Water Content	E1604	0.10	Not Specified



DOT3 XD240 Premium

A premium hydraulic brake fluid. A glycol ether based fluid, formulated to exceed the requirements of the major internationally recognised hydraulic brake fluid standards, with enhanced Equilibrium Reflux Boiling Point and Wet Equilibrium Relux Boiling Points.

Application

It has all the properties required to ensure safe and reliable operation of vehicle braking systems.

Standards

- FMVSS No 116 DOT3
- SAE J1703
- ISO 4925 Class 3

Features and Benefits

- **High Boiling Point** – minimises the risk of vapour lock under extreme conditions
- **Optimal Viscosity** – ensures system responsiveness is maintained in very cold conditions whilst adequate lubricity and leakage prevention are maintained at high operating temperatures
- **Corrosion Inhibition** – protects the full range of metallic components in the braking system from corrosion damage and potential system failure
- **Rubber Compatibility** – maximises the working life of system seals to ensure safe system operation
- **Fluid Compatibility** – can be safely mixed with other brake fluids meeting the DOT3 specification
- **Increased Safety Margins** – Higher performance quality means the fluid will remain fit for purpose for longer

Parameter	Method	DOT3 XHD240	FMVSS116
Appearance	Visual	Pale straw coloured liquid, free from suspended matter	Not Specified
Density @ 20°C, g/cm ³	ASTM D4052	1.025	Not specified
Equilibrium Reflux Boiling Point, °C	SAE J1703	252	205 min
Wet Equilibrium Reflux Boiling Point, °C	SAE J1703	148	140 min
-40°C Kinematic Viscosity, mm ² /s	ASTM D7042	1250	1800 max
100°C Kinematic Viscosity, mm ² /s	ASTM D7042	2.1	1.5 min
pH (50% vol.)	SAE J1703	9.1	7.0–11.5
Water Content	E1604	0.10	Not Specified

DOT4 XHD255

A high quality hydraulic brake fluid. A glycol ether based fluid formulated to exceed the requirements of the major internationally recognised hydraulic brake fluid standards.

Application

It has all the properties required to ensure safe and reliable operation of vehicle braking systems.

Standards

- FMVSS No 116 DOT4
- SAE J1704
- ISO 4925 Class 4

Features and Benefits

- **High Boiling Point** – minimises the risk of vapour lock occurring in the wheel cylinder, even under the most extreme conditions
- **High Wet Boiling Point** – ensures continued vapour lock protection by maintaining a high boiling point throughout the service life of the fluid
- **Optimal Viscosity** – minimal low temperature viscosity ensures system responsiveness is maintained in very cold conditions whilst maximal high temperature viscosity ensures adequate lubricity and leakage prevention are maintained at high operating temperatures
- **Corrosion Inhibition** – protects the full range of metallic components in the braking system from corrosion damage that can cause excessive seal wear or even loss of fluid and potential system failure
- **Rubber Compatibility** – with the range of elastomeric material commonly found in braking systems, maximises the working life of system seals to ensure safe and reliable system operation
- **Fluid Compatibility** – can be safely mixed with other brake fluids meeting both the DOT3 and DOT4 specifications
- **Fluid Stability** – against both high temperature and oxidation ensures stable performance characteristics for a long and reliable service life

Parameter	Method	DOT4 XHD255	FMVSS116
Appearance	Visual	Pale straw coloured liquid, free from suspended matter	Not Specified
Density @ 20°C, g/cm ³	ASTM D4052	1.06	Not specified
Equilibrium Reflux Boiling Point, °C	SAE J1704	261	230 min
Wet Equilibrium Reflux Boiling Point, °C	SAE J1704	158	155 min
-40°C Kinematic Viscosity, mm ² /s	ASTM D7042	1270	1800 max
100°C Kinematic Viscosity, mm ² /s	ASTM D7042	2.1	1.5 min
pH (50% vol.)	SAE J1704	8.4	7.0–11.5
Water Content	E1604	0.10	Not Specified



DOT4 XHD260 Premium

A premium hydraulic brake fluid. A glycol ether based fluid formulated to exceed the requirements of the major internationally recognised hydraulic brake fluid standards.

Application

It has all the properties required to ensure safe and reliable operation of vehicle braking systems.

Standards

- FMVSS No 116 DOT4
- SAE J1704
- ISO 4925 Class 4

Features and Benefits

- **High Boiling Point** – minimises the risk of vapour lock occurring in the wheel cylinder, even under the most extreme conditions
- **High Wet Boiling Point** – ensures continued vapour lock protection by maintaining a high boiling point throughout the service life of the fluid
- **Optimal Viscosity** – minimal low temperature viscosity ensures system responsiveness is maintained in very cold conditions whilst maximal high temperature viscosity ensures adequate lubricity and leakage prevention are maintained at high operating temperatures
- **Corrosion Inhibition** – protects the full range of metallic components in the braking system from corrosion damage that can cause excessive seal wear or even loss of fluid and potential system failure
- **Rubber Compatibility** – with the range of elastomeric material commonly found in braking systems, maximises the working life of system seals to ensure safe and reliable system operation
- **Fluid Compatibility** – can be safely mixed with other brake fluids meeting both the DOT3 and DOT4 specifications
- **Fluid Stability** – against both high temperature and oxidation ensures stable performance characteristics for a long and reliable service life
- **Increase safety margins**

Parameter	Method	DOT4 XHD260	FMVSS116
Appearance	Visual	Pale straw coloured liquid, free from suspended matter	Not Specified
Density @ 20°C, g/cm ³	ASTM D4052	1.062	Not specified
Equilibrium Reflux Boiling Point, °C	SAE J1704	264	230 min
Wet Equilibrium Reflux Boiling Point, °C	SAE J1704	164	155 min
-40°C Kinematic Viscosity, mm ² /s	ASTM D7042	1180	1800 max
100°C Kinematic Viscosity, mm ² /s	ASTM D7042	2.2	1.5 min
pH (50% vol.)	SAE J1704	8.2	7.0–11.5
Water Content	E1604	0.10	Not Specified

DOT4 LV OEM Standard

A low-viscosity hydraulic brake fluid. A glycol ether based fluid formulated to exceed the requirements of the major internationally recognised hydraulic brake fluid standards.

Application

It has all the properties required to ensure safe and reliable operation of vehicle braking systems. Ideal for use in today's modern and advanced braking systems (ABS) as well as electronic stability programs (ESP).

Standards

- FMVSS No 116 DOT 4
- SAE J1704
- ISO 4925 Class 6

Features and Benefits

- **High Boiling Point** – minimises the risk of vapour lock occurring in the wheel cylinder, even under the most extreme conditions
- **High Wet Boiling Point** – ensures continued vapour lock protection by maintaining a high boiling point throughout the service life of the fluid
- **Optimal Viscosity** – minimal low temperature viscosity ensures system responsiveness is maintained in very cold conditions whilst maximal high temperature viscosity ensures adequate lubricity and leakage prevention are maintained at high operating temperatures
- **Corrosion Inhibition** – protects the full range of metallic components in the braking system from corrosion damage that can cause excessive seal wear or even loss of fluid and potential system failure
- **Rubber Compatibility** – with the range of elastomeric material commonly found in braking systems, maximises the working life of system seals to ensure safe and reliable system operation
- **Fluid Compatibility** – can be safely mixed with other brake fluids meeting the both DOT3 and DOT4 specifications
- **Fluid Stability** – against both high temperature and oxidation ensures stable performance characteristics for a long and reliable service life

Parameter	Method	DOT4 LV OEM Standard	FMVSS116
Appearance	Visual	Pale straw coloured liquid, free from suspended matter	Not Specified
Density @ 20°C, g/cm³	ASTM D4052	1.059	Not specified
Equilibrium Reflux Boiling Point, °C	SAE J1704	270	250 min
Wet Equilibrium Reflux Boiling Point, °C	SAE J1704	171	165 min
-40°C Kinematic Viscosity, mm²/s	ASTM D7042	665	750 max
100°C Kinematic Viscosity, mm²/s	ASTM D7042	2.2	1.5 min
pH (50% vol.)	SAE J1704	7.4	7.0–11.5
Water Content	E1604	0.10	Not Specified



Super DOT4 OEM Standard

A high wet equilibrium reflux boiling point brake fluid. A glycol ether based fluid formulated to exceed the requirements of the major internationally recognised hydraulic brake fluid standards.

Application

It has all the properties required to ensure safe and reliable operation of vehicle braking systems. Specific use in vehicles with electronic stability programs.

Standards

- FMVSS No 116 DOT 4
- SAE J1704
- ISO 4925 Class 4

Features and Benefits

- **High Boiling Point** – minimises the risk of vapour lock occurring in the wheel cylinder, even under the most extreme conditions
- **High Wet Boiling Point** – ensures continued vapour lock protection by maintaining a high boiling point throughout the service life of the fluid
- **Optimal Viscosity** – minimal low temperature viscosity ensures system responsiveness is maintained in very cold conditions whilst maximal high temperature viscosity ensures adequate lubricity and leakage prevention are maintained at high operating temperatures
- **Corrosion Inhibition** – protects the full range of metallic components in the braking system from corrosion damage that can cause excessive seal wear or even loss of fluid and potential system failure
- **Rubber Compatibility** – with the range of elastomeric material commonly found in braking systems, maximises the working life of system seals to ensure safe and reliable system operation
- **Fluid Compatibility** – can be safely mixed with other brake fluids meeting the both DOT3 and DOT4 specifications
- **Fluid Stability** – against both high temperature and oxidation ensures stable performance characteristics for a long and reliable service life

Parameter	Method	Super DOT4 OEM Standard	FMVSS116
Appearance	Visual	Pale straw coloured liquid, free from suspended matter	Not Specified
Density @ 20°C, g/cm ³	ASTM D4052	1.065	Not specified
Equilibrium Reflux Boiling Point, °C	SAE J1704	270	250 min
Wet Equilibrium Reflux Boiling Point, °C	SAE J1704	181	165 min
-40°C Kinematic Viscosity, mm ² /s	ASTM D7042	998	750 max
100°C Kinematic Viscosity, mm ² /s	ASTM D7042	2.3	1.5 min
pH (50% vol.)	SAE J1704	7.35	7.0–11.5
Water Content	E1604	0.08	Not Specified

DOT5.1 OEM Standard

A premium hydraulic brake fluid. A glycol ether based fluid formulated exclusively to exceed the requirements of the major internationally recognised hydraulic brake fluid standards.

Application

It has all the properties required to ensure safe and reliable operation of vehicle braking systems. Specialist applications, primarily racing vehicles and motorcycles.

Standards

- FMVSS No 116 DOT 5.1
- SAE J1704
- ISO 4925 Class 5.1

Features and Benefits

- **High Boiling Point** – minimises the risk of vapour lock occurring in the wheel cylinder, even under the most extreme conditions
- **High Wet Boiling Point** – ensures continued vapour lock protection by maintaining a high boiling point throughout the service life of the fluid
- **Optimal Viscosity** – minimal low temperature viscosity ensures system responsiveness is maintained in very cold conditions whilst maximal high temperature viscosity ensures adequate lubricity and leakage prevention are maintained at high operating temperatures
- **Corrosion Inhibition** – protects the full range of metallic components in the braking system from corrosion damage that can cause excessive seal wear or even loss of fluid and potential system failure
- **Rubber Compatibility** – with the range of elastomeric material commonly found in braking systems, maximises the working life of system seals to ensure safe and reliable system operation
- **Fluid Compatibility** – can be safely mixed with other brake fluids meeting the both DOT3 and DOT4 specifications
- **Fluid Stability** – against both high temperature and oxidation ensures stable performance characteristics for a long and reliable service life

Parameter	Method	DOT5.1	FMVSS116
Appearance	Visual	Pale straw coloured liquid, free from suspended matter	Not Specified
Density @ 20°C, g/cm ³	ASTM D4052	1.069	Not specified
Equilibrium Reflux Boiling Point, °C	SAE J1704	275	260 min
Wet Equilibrium Reflux Boiling Point, °C	SAE J1704	185	180 min
-40°C Kinematic Viscosity, mm ² /s	ASTM D7042	776	900 max
100°C Kinematic Viscosity, mm ² /s	ASTM D7042	2.28	1.5 min
pH (50% vol.)	ISO 4925	7.5	7.0–11.5
Water Content	E1604	0.12	Not Specified



LHM Plus OEM Standard

A premium hydraulic brake fluid. A mineral oil based fluid formulated exclusively to exceed the requirements of the major internationally recognised hydraulic brake fluid standards.

Application

It has all the properties required to ensure safe and reliable operation of vehicle braking systems. Specialist applications, primarily racing vehicles and motorcycles.

Standards

- PSDA B71 2710 (Citroen, Peugeot)
- ISO 7308

Features and Benefits

- **High Performance** – LHM Plus Brake and Hydraulic Fluid is a high performance hydraulic fluid, formulated with very thermally stable mineral base oils. It has been developed especially for use in PSA motor vehicles. LHM Plus is filled into the tank of PSA motor vehicles marked specifically for this purpose. This serves as a reservoir for the hydraulic fluid, which also supports brake, steering and chassis functions
- **Corrosion Inhibition** – protects the full range of metallic components in the braking system from corrosion damage that can cause excessive seal wear or even loss of fluid and potential system failure
- **Rubber Compatibility** – only to be used within braking systems designed for use with mineral oil based fluids
- **Fluid Compatibility** – LHM plus is readily miscible with older LHM fluids, however the quality is superior to the older ones. In order to benefit fully from the LHM plus, a full fluid change is recommended rather than mixing with an older type of mineral based fluid

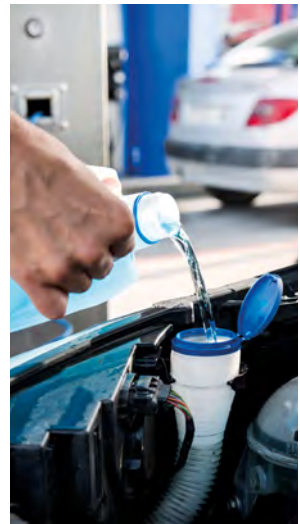
Parameter	Method	LHM Plus	Units
Appearance	DIN 10964	Green-yellow fluorescent liquid	
Density @15.6, °C	DIN EN ISO 12185	0.845	kg/m ³
Kinematic Viscosity at 100, °C	DIN EN ISO 3104	6.4	mm ² /s
Kinematic Viscosity at 40, °C	DIN EN ISO 3104	19.1	mm ² /s
Kinematic Viscosity at -40, °C	DIN EN ISO 3104	1069	mm ² /s
Viscosity Index	DIN EN ISO 2102	335	
Boiling Point	FMVSS 116.S6.1	290	°C
Closed Flash Point	DIN EN ISO 3104	124	°C
Pour Point	ISO 3016	-54	°C



Screenwash

Screenwash is a product designed to give better visibility and safer driving conditions. It quickly clears the windscreen in all seasons due to its improved wetting characteristics and cleaning power.

Screenwash is used in vehicle windscreen and headlight washing systems. It is added to water to provide a cleaning liquid used all year round, and used in different concentrations to provide different levels of frost protection to the wash system.





Solscreen

Solscreen is an environmentally friendly screenwash base product for use in screenwash and de-icing applications.

Solscreen is a low foaming product with good tolerance to hard water. Formulations based on Solscreen would normally include additional water at a level necessary to achieve the desired freezing point as well as additional water-soluble anionic surfactant to promote surface wetting.

Additional glycol can be included to give high flash point/low freeze products. Chemical softeners can be added for when dilution in hard water areas is required.

The product contains a bittering agent to prevent accidentally swallowing.

It's surfactants are compliant with the European Detergent Directive N° 648/2004/EC and are approved by Nordic Swan eco-labelled products.

Features

Benefits

■ Super concentrated formulation	■ Can be diluted to provide a wide range of freeze protection levels
■ High alcohol content	■ Provides freeze protection down to -75°C
■ Meets Dekra test method specifications	■ Demonstrates excellent material compatibility with elastomers, polymeric materials and decorative finishes
■ Fully biodegradable	■ Safe for the environment
■ All year round formulation	■ One product for all seasons
■ Can be blue dyed or citrus perfumed upon customer request	■ Tailored to customer requirements





Solventis Ltd
Compton House
The Guildway
Old Portsmouth Road
Guildford GU3 1LR
UK

T +44 (0)1483 203224

E automotive@solventis.net

Solventis Europe NV
Sint Maartenstraat 1
2000 Antwerpen
Belgium

T +32 (0)3 205 1666

E automotive@solventis.net