COOLELF AUTO SUPRA -37°C



COOLELF AUTO SUPRA -37°C is a «very long life» coolant based on monoethylene glycol and organic inhibitors of corrosion.

COOLELF AUTO SUPRA -37°C is a cooling liquid that can be used in all cooling systems of combustion engines in cars, vans, trucks, buses, constructing machines and agricultural tractors.

In accordance with French Decree No. 95-326 of 20th March 1995 concerning the distribution of certain substances containing monoethylene glycol, **COOLELF AUTO SUPRA -37°C** contains **an additive to give it a bitter taste** as a guarantee against accidental ingestion by children or users.

COOLELF AUTO SUPRA -37°C is the top-of-range product of our cooling liquid range.

APPLICATIONS	
Protection against freezing	• COOLELF AUTO SUPRA -37°C is a permanent coolant that can be used during the whole year.
(until -37°C)	• COOLELF AUTO SUPRA -37°C is ready for use, as a mix with demineralised water.
	 COOLELF AUTO SUPRA -37°C can be used for cast iron as well as aluminium engines, and also in engine radiators in aluminium or copper alloy.
Longer life	 Recommended oil change interval: 650,000 km/8000 hours/5 years when used in trucks 250,000 km/5 years when used in cars.
Environment	All antifreezes and coolants based upon monoethylene glycol are regarded as special industrial wastes and must be disposed of in approved centres for environmental reasons.
CUSTOMER BENEFITS	
Very long-term protection	•Excellent protection against corrosion, erosion, and cavitation, for aluminium water pumps.
against metals corrosion	 Heat transfer remains optimised: fully organic additives allow avoiding any formation of deposits and leave surfaces clean.
No formation of deposits leave surfaces clean	 The additives in COOLELF AUTO SUPRA -37°C give to the coolant: Chemical neutrality (pH 7-8.5), A reserve of alkalinity to neutralise the acids resulting from the combustion gases, Resistance to foaming (mainly instability of the foam that might form) Compatibility with hard water (maximum 40°F).
Excellent protection of aluminium at high temperature	• COOLELF AUTO SUPRA -37°C contains no silicates, phosphates, chromates, nitrites or boron.
	 COOLELF AUTO SUPRA -37°C is inert to elastomeric seals and paints.

TOTAL LUBRIFIANTS 562 avenue du Parc de l'île F-92029 NANTERRE 1/3

Coolelf Auto Supra –37°C Sheet updated: 07/13 Sticker reference: MGP/09/06



This coolant used in accordance with our recommendations and for the application for which it is intended does not represent a special hazard. A safety data file conforming to the requirements of current EC legislation is available from your local trade consultant.



SPECIFICATIONS	
AFNOR NFR 15-601 ASTM d 3306 ASTM D 4656 ASTM D4985 BS 6580	 COOLELF AUTO SUPRA -37° meets the international specifications for antifreezes as well as those of major manufacturers. The antifreeze used in COOLELF AUTO SUPRA -37°C is officially approved by the following manufacturers: AUDI /SEAT /SKODA / VW TL 774 D/F (G12/12+) MB-Approval 326.3 FORD WSS-M97B44-D/E OPEL / GM 6277M MAN 324 Typ SNF DEUTZ 0199-99-1115 DEUTZ MWM 0199-99-2091 MTU MTL 5048 LIEBHERR MD1-36-130
	 COOLELF AUTO SUPRA -37°C has been acknowledged as satisfactory for use in their engines by the following manufacturers: RENAULT VI DAF 74002 SCANIA (up to Euro IV) VOLVO 128 6083 / 002 JENBACHER TA 1000-0201 ISUZU LEYLAND TRUCKS DW03245403 KOMATSU 07.892 (2009) JAGUAR WSS-M97B44-D

CHARACTERISTICS OF COOLELF AUTO SUPRA –37°C

Colour		Pink to fluorescent orange
Density at 15 °C	ASTM D1122	1.068
рН	ASTM D1287	8.4
Alkalinity reserve(pH 3.5)	ASTM D1287	2.8ml HCI 0.1N
Temperature at which the first ice crystals occur	ASTM D1177	-38°C
Boiling temperature	ASTM D1120	108°C

The typical characteristics mentioned represent mean values

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PERFORMANCES OF COOLELF AUTO SUPRA -37°C

• ASTM D1384 : Glassware Corrosion Test (336hrs / 88°C / 33%vol)

		Weight loss (mg/coupon)					
	copper	solder	brass	steel	cast iron	aluminium	
ASTM D3306 limits	10	30	10	10	10	30	
Coolelf Auto Supra	1.9	0.3	1.6	-0.5	-1.4	4.6	

• ASTM D4340: Aluminium Heat Rejection Test (25% vol)

	Weight loss (mg/cm²/week)				
ASTM D3306 limits	1.0				
Coolelf Auto Supra	< 0.2				

ASTM D2570: Simulated Service Test

		Weight loss (mg/cm ²)					
	copper solder brass steel cast iron alu						
ASTM D3306 limits	20	60	20	20	20	60	
Coolelf Auto Supra	2.0	1.0	2.0	1.0	-3.0	1.0	

<u>AGING TEST: very severe corrosion test</u>

Test Conditions	Typical Conditions	Severe Conditions
Test duration	169 h	504 h
Fluid Content	5.0 l	6.0 l
Pressure	1.5 bar	2.5 bar
Flow	3.0 l/min	3.5 l/min
Heat input	5500 W	5000 W
Temperature in heating vessel	95°C	115°C
Temperature in cooling vessel	75°C	95°C
Concentration of coolant in water	40% vol	20% vol

	Weight loss (g/m ²)						
	AI (SAE 329)	AlMn	Cast Iron	Steel	Cu	CuZn	Solder CB
Reference Coolant							
After initial cleaning	82.10	64.02	-2.19	-1.68	3.62	2.90	21.45
After final cleaning	125.01	94.33	-0.36	0.11	4.99	5.66	25.83
Coolelf Auto Supra							
After initial cleaning	9.77	0.71	-0.07	0.17	1.44	1.62	0.43
After final cleaning	23.58	4.14	0.0	0.24	2.63	2.53	0.55

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