# 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 20<sup>th</sup> 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.
	<ul> <li>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.</li> </ul>
Longer life	<ul> <li>Recommended oil change interval:</li> <li>650,000 km/8000 hours/5 years when used in trucks</li> <li>250,000 km/5 years when used in cars.</li> </ul>
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	<ul> <li>Heat transfer remains optimised: fully organic additives allow avoiding any formation of deposits and leave surfaces clean.</li> </ul>
No formation of deposits	<ul> <li>The additives in COOLELF AUTO SUPRA -37°C give to the coolant:</li> <li>Chemical neutrality (pH 7-8.5),</li> </ul>
leave surfaces clean	<ul> <li>A reserve of alkalinity to neutralise the acids resulting from the combustion gases,</li> </ul>
	<ul> <li>Resistance to foaming (mainly instability of the foam that might form)</li> <li>Compatibility with hard water (maximum 40°F).</li> </ul>
Excellent protection of aluminium at high temperature	<ul> <li>COOLELF AUTO SUPRA -37°C contains no silicates, phosphates, chromates, nitrites or boron.</li> </ul>
	<ul> <li>COOLELF AUTO SUPRA -37°C is inert to elastomeric seals and paints.</li> </ul>

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

Coolelf Auto Supra –37°C Sheet updated: 03/10 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	<ul> <li>COOLELF AUTO SUPRA -37° meets the international specifications for antifreezes as well as those of major manufacturers.</li> <li>The antifreeze used in COOLELF AUTO SUPRA -37°C is officially approved by the following manufacturers:         <ul> <li>AUDI</li> <li>DAIMLER</li> <li>MB-Approval 325.3 (concentrate)</li> <li>MB-Approval 326.3 (Coolant -50% dilution)</li> </ul> </li> <li>DEUTZ</li> <li>DEUTZ / MWM</li> <li>VW G12+</li> <li>FORD</li> <li>MAN 324 Typ SNF</li> <li>SEAT</li> <li>SKODA</li> <li>VW TL 774D</li> </ul> <li>COOLELF AUTO SUPRA -37°C has been acknowledged as satisfactory for use in their engines by the following manufacturers:         <ul> <li>JAGUAR</li> <li>LEYLAND TRUCKS</li> <li>OPEL-GM 6277M</li> <li>RENAULT VI</li> <li>SCANIA</li> <li>SAAB</li> </ul> </li>

# 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/cm <sup>2</sup> /week)
ASTM D3306 limits	1.0
Coolelf Auto Supra	< 0.2

### ASTM D2570: Simulated Service Test

		Weight loss (mg/cm <sup>2</sup> )							
	copper	copper solder brass steel cast iron aluminium							
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		
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 <sup>2</sup> )						
Deference Coolent	AI (SAE 329)	AlMn	Cast Iron	Steel	Cu	CuZn	Solder CB
Reference Coolant After initial cleaning After final cleaning	82.10 125.01	64.02 94.33	-2.19 -0.36	-1.68 0.11	3.62 4.99	2.90 5.66	21.45 25.83
<b>Coolelf Auto Supra</b> After initial cleaning After final cleaning	9.77 23.58	0.71 4.14	-0.07 0.0	0.17 0.24	1.44 2.63	1.62 2.53	0.43 0.55

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