



# GUARD LIQUIDO PERMANENTE BLU CONCENTRADO

## Description

Antifreeze formulated using ethylene glycol bases as well as anti-corrosion and anti-foam additives. It is free of amines, nitrites, and phosphates. Recommended for all diesel and petrol engine cooling circuits, especially in aluminium and its alloys. Mixed with 30-50% water, it offers excellent anti-freeze and coolant properties as well as excellent protection of metal surfaces.

## Properties

- Excellent protection against corrosion and cavitation, even at low concentrations.
- Mixable with water in any ratio.
- Avoids the formation of foam.
- Hinders the formation of deposits and sludge in the cooling circuit.
- Great thermal stability.
- Has the necessary alkaline capacity to neutralize the acidic combustion gases that inevitably pass through the refrigeration circuit.
- Compatible with joints and gaskets, thus avoiding product loss risks.
- It can be used in all refrigeration circuits including industrial ones.
- Not suitable for food use

## Quality levels, approvals and recommendations

- |                    |                  |
|--------------------|------------------|
| • AFNOR NF R15-601 | • ASTM: D3306    |
| • BS 6580:2010     | • CUNA NC 956-16 |
| • SAE: J 1034      |                  |



# GUARD LIQUIDO PERMANENTE BLU CONCENTRADO

## Technical specifications

	UNIT	METHOD	VALUE
Appearance		Visual	Blue
pH 50% vol. in water	-	ASTM D1287	>7.5
Water content	%	ASTM D1123	<5
Freezing point (at 50%)	°C	ASTM D1177	<-36.4
Density at 20 °C	g/mL	ASTM D941	1.13
Flash point	°C	DIN ISO 2592	>122
Boiling point	°C	ASTM D1120	>160
Boiling point 50% vol.	°C	ASTM D1120	>108
Reserve alkalinity 10% vol.	ml HCl 0,1N	ASTM D1121	>16
Ashes	%	ASTM D1119	1.2
Foaming	ml/s	ASTM D1881	10
Corrosion of metals		ASTM D1384	
- Aluminium, steel, cast iron			<0.5
- Copper and brass			<1
- Welding alloy			1.6

The above mentioned characteristics are typical values and should not be considered product specifications.