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## **RAVENOL OTC - Protect C12+ Concentrate**

### **SILICATE - BORATE - NITRITE - FREE**

**RAVENOL OTC Organic Technology Coolant Concentrate** is an eco-friendly 1.2- Ethanediol (monoethylene glycol) based silicate, borate, nitrite and phosphate-free coolant for cooling circuits in combustion engines which provides maintenance-free corrosion and frost protection. This product is formulated based on a proven inhibitor development by combining silicates with the organic additive technology OAT as an extended life coolant.

The quality of an antifreeze is no longer just determined by the antifreeze effect (which automatically exists in an ethylene-glycol based product), but by the rust protection. That is why automakers subject antifreeze to lengthy corrosion and cavitation tests.

**RAVENOL OTC Organic Technology Coolant Concentrate** protects the cooling system from rust, frost, and in summer, from overheating.

### **Application Notes**

**RAVENOL OTC Organic Technology Coolant Concentrate** with highly effective frost and rust protection. Usable in cooling systems with all-aluminium engines. Mix according to chart. Please follow manufacturer instructions.

Instructions: Clean cooling system, test leak tightness, flush.

Mix **RAVENOL OTC Organic Technology Coolant Concentrate** with clean water (per mixing chart) and add. Allow engine and heater to warm up, add coolant to fill level.

MAN information for use: Mixing prohibited with Type NF and Type N. Do not use silicone radiator hoses per MAN 334 Type 3 (blue) with coolants per MAN 324 Type SNF.

### **Mixing Chart:**

Antifreeze protection until	Parts Antifreeze	Parts Water
- 12°C	1	3
- 20°C	1	2
- 37°C	1	1

## Quality Classifications

**RAVENOL OTC Organic Technology Coolant Concentrate** is tried and tested for aggregates specifying:

### Specifications

MB 325.3, VW/AUDI TL 774 D/F (acc. to G 12 Plus quality), OPEL GM 6277 M, OPEL GM B 040 1065, Ford WSS-M 97 B44D (from model year 1999), FORD 1336797, FORD 1336807, FORD 1365305, PORSCHE, Mitsubishi 0103044, 0103045, MZ311986, Toyota 08889-00115, 08889-01005, 08889-80014, 08889-80015, 00272-1LLAC, VOLVO 9437650, 9437651, VW G012A8FM1, G012A8FM8, G012A8GM9

### Approvals

MAN 324 SNF, VW TL 774 Ausführung F, DEUTZ DQC CB-14

### Characteristic

**RAVENOL OTC Organic Technology Coolant Concentrate** offers:

- Excellent for aluminium alloy engines
- Good reserve alkalinity
- Premium corrosion additives for optimal rust protection for all metals and metal alloys used in cooling systems, including aluminium
- Prevents sediments and foaming in the cooling system

- Compatible with elastomers used in automotive radiators
- Can be mixed with other coolant types

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Characteristics	Unit	Data	Audit
Colour		violet / lila	visual

<b>Characteristics</b>	<b>Unit</b>	<b>Data</b>	<b>Audit</b>
Density at 20°C	kg/m <sup>3</sup>	1130	EN ISO 12185
Flash point	°C	110	ASTM D 51758
Boiling point	°C	175	ASTM D 1121
pH- value		7,8	ASTM D 1287
Reserve alkalinity	ml 0,1 n HCL	5,5	ASTM D 1120
Water content	Gew.-%	5	ASTM D 1123
Freezing point (50 %-Lösung)	°C	-35	ASTM D 1177

All indicated data are approximate values and are subject to the commercial fluctuations.