WT SUPRA

Corrosion inhibitor in coolant circuits

WT SUPRA is a so-called "water treatment" agent: it is an aqueous concentrate of specific organic corrosion and cavitation inhibitors. Its special formula - containing absolutely no phosphates, nitrites, amines, boron, nitrates or silicates - gives it two important properties: first of all WT SUPRA is non-polluting and, secondly, it is long-lasting.

APPLICATIONS

Engine cooling

Heat transfer

- As a 5 to 10% vol. solution in water depending on its purpose, **WT SUPRA** will protect:
  Cooling circuits in diesel and gas engines:
  - in combined heat and power plants or electricity power stations requiring **no antifreeze protection** but needing efficient heat transfer;
  - in ships engines;
  - on the factory test bed during running-in and for the protection of the engine block against corrosion between leaving the factory and entering service.
  Heat transfer systems (such as heating plant or secondary circuits in cogeneration units) employing an aqueous fluid.
- It is preferable to use a soft water even if laboratory tests give satisfactory results with water rated at 20° TH.
- It is important that the product should be **mechanically mixed** with the water to ensure a uniform mixture.

SPECIFICATIONS

Engines manufacturers

- WT SUPRA is approved by:
  - MAN
  - MTU
  - MWM
  - ROLLS-ROYCE
  - WARTSILA
  - GE - JENBACHER

ADVANTAGES

Enhanced protection against corrosion and cavitation
No deposit formation

- Thanks to its organic technology, **WT SUPRA** protects circuits much better against cavitation and corrosion than conventional "water treatment" products.
- The absence of any inorganic ingredients (such as phosphates, nitrites, etc.) means that no hard deposits are formed, especially around the top of liners, cylinder heads, heat exchanger tubes and electric heaters. As a result :
  - heat transfer is sustained,
  - anti-corrosion and anti-cavitation properties are maintained,
  - there is no risk of pipe erosion due to hard particles in circulation,
  - the circuit remains clean.

Lower disposal/ recycling costs
Protects the environment

- The active ingredients in **WT SUPRA** are non-polluting, and confer the same properties on the circuit fluid so long as it does not contain any toxic substances such as monoethylene glycol (a routine ingredient of ordinary antifreezes). These properties allow it to be used in domestic heating installations.

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Better heat transfer at lower cost	● When no antifreeze protection is needed, filling a heat transfer circuit with **WT SUPRA** after emptying out a conventional antifreeze gives better performance – thanks to the fluid's higher thermal capacity - at lower cost. ● Optimum protection is obtained when **WT SUPRA** is diluted in water of hardness below 20° TH, containing no zinc and less than 300 ppm of chlorides and sulphates.

TYPICAL CHARACTERISTICS	METHODS	UNITS	**WT SUPRA**
Colour			Colourless
SG at 20°C	ASTM D 1122		1.058
pH	ASTM D 1287		9.4
pH diluted to 5% vol.			8.1

Above characteristics are mean values given as an information.

When **WT SUPRA** is used to flush circuits (see procedure below) that have previously contained a different fluid, its minimum concentration should be 5% vol.
When **WT SUPRA** is used in the cooling systems of stationary engines, its minimum concentration should be 8.5% vol.
A 10% vol. dilution is recommended when **WT SUPRA** is used to protect the cooling circuits of engines when these are being run in on the test bed and during periods of storage (2 months).

FLUSHING PROCEDURE WITH WT SUPRA

Installations containing deposits arising from construction (new facilities) or corrosion (those already in service), must be flushed out very carefully.

Procedures:

1/ Circulate the existing fluid for at least an hour to bring the deposits into suspension.

2/ Drain the cooling circuits completely (clean out low points and retention zones).

3/ Blend water + 10 % vol. **WT SUPRA**.

4/ Circulate at teast 2 hours the water + **WT SUPRA** mixture at running temperature to be sure thermostatically-controlled valves are open and fluid circulates in the whole circuit. This is done to put deposits in suspension.

5/ Drain completely cooling circuits (bleed down lower circuit parts and retention zones).

6/ Check heating electric resistances and expansion tank. Clean them if there are deposits.

7/ Flush with water one or many times until water becomes clear.

8/ Drain completely cooling circuits, (bleed down lower part, retention zones).
Check filters & heat exchangers, clean them if plugged by deposits.

9/ Fill with service cooling fluid.

This lubricant used as recommended and for the application for which it has been designed does not present any particular risk.
A material safety data sheet conforming to the regulations in use in the E.C. can be obtained from your local commercial adviser or down loaded from https://ms-sds.totalenergies.com/totalpullwebsite//

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