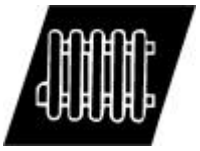
GLACELF CHP SUPRA



Antifreeze for low concentrations

GLACELF CHP SUPRA is a "long-life" antifreeze in which the content of high-performance, specific organic additives has been increased to enable it to be used in smaller quantities when major antifreeze protection is not necessary.
Its exclusive formula is totally free from phosphates, nitrites, amines and boron.

APPLICATIONS

Engine cooling in cogen plants or in warm countries

- Cooling circuits of the engines of cogeneration plants not requiring major antifreeze protection, but demanding efficient heat transfer while at the same time ensuring enhanced anticorrosion and anticavitation protection. **GLACELF CHP SUPRA** provides effective protection even when diluted 20% by volume in water.
- Cooling of engines used in warm or tropical countries where a important freezing protection is not use full (from – 7 °C to – 15 °C) according to the dilution see table below) for lower temperature condition GLACELF SUPRA is suitable.
- Before proceeding to fill a circuit which has contained a different product, it is strongly recommended that you undertake through flushing to improve the maximum performances of the product.
  It is essential to blend mechanically the antifreeze with the water to ensure a perfect mixing.

The antifreeze protection temperatures of the circuit as a function of the proportion of **GLACELF CHP SUPRA** in the cooling liquid are as follows:

% by volume of **GLACELF CHP SUPRA**	20 %	25 %	30 %
Temperature of appearance of the first crystals in the cooling fluid, °C (NFT 78102)	- 7	- 11	- 15

Characteristics of this chart are indicative typical values.

SPECIFICATIONS

International specifications

- **GLACELF CHP SUPRA** complies with the following specifications :
  - ASTM D 3306
  - ASTM D 4985
  - BS 6580 - BS 5117
  - AFNOR NF R 15-601

Engines manufacturers

- **GLACELF CHP SUPRA** meets the requirements of the following Diesel and Gas engine manufacturers :
  - CATERPILLAR, COOPER BESSEMER, CUMMINS,
  - DEUTZ, DRESSER-CLARK, DIESEL RICERCHE, DETROIT DIESEL, 2000 & 4000 series,
  - FICANTIERI,
  - GRANDI MOTORI TRIESTE, GUASCOR,
  - JENBACHER, JOHN DEERE,
  - MACK (11 & 12 L), MITSUBISHI, MTU Construction & Industry 2000 & 4000 series,
  - PAXMAN, PERKINS,
  - ROLLS ROYCE BERGEN,
  - SEMT PIELSTICK,
  - WÄRTSILÄ, WAUKESHA (VHP & AT series),
  - WAUKESHA.

ADVANTAGES

Improved corrosion and cavitation protection	● Thanks to its specific organic formulation, **GLACELF CHP SUPRA** gives a cavitation protection higher than this provided by the current antifreezes. The corrosion protection is also better almost for the aluminium parts present in the modern engines even concentrated at only 20 %.
No deposit formation risks in the cooling circuit	● The **GLACELF CHP SUPRA** exceptionnal thermal stability eliminates the risks of minerals deposits particularly near the hot parts: liners top, cylinder heads, heat exchanger tubes, heating resistance. This ensure: - heat transfert conservation - fluid performances conservation - piping erosion risks (due to hard deposits circulation) suppression - circuit cleanliness - extended temperature sensitive components life time.
Cost reduction	● The long life property of The **GLACELF CHP SUPRA** allows by extended drain intervals the reduction of the coolant recycling costs.

TYPICAL CHARACTERISTICS	METHODS	UNITS	**GLACELF CHP SUPRA**
Colour			Fluorescent yellow
Density at 15°C	ISO 3676	kg/m^3	1.115
Alkalinity reserve at equivalence point	GFC PrL-111-03	Ml HCl 0.1 N	84.0
pH	ASTM D 1287		8.4

Above characteristics are mean values given as an information.

UTILISATION

Facilities that contain deposits arising from construction (new installations) or corrosion (facilities already in service) must be thoroughly flushed.

Procedure:

1. Circulate the used fluid for at least 1 hour to put any deposits in suspension.

2. Empty the water circuits completely (flush out any low points or retention zones).

3. Check the heating tubes and the expansion tank and clean out if any deposits are found.

4. Rinse with pure water (say, twice), circulating water throughout the circuit.
   Empty and check that the filters are not blocked by deposits.

5. Drain the circuit completely.

6. Refill with **GLACELF CHP SUPRA** to the concentration defined for the particular facility (20 % minimum).

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 www.quick-fds.com.