

## Technical Data Sheet

# KRONES celerol CL 7801

### Description and fields of application

**KRONES celerol CL 7801** is a long-term anti-freeze and refrigerant concentrate with corrosion inhibitors for heating and cooling systems, preferably used in the food industry (e.g., heat pumps, air-conditioning systems, etc.). Special corrosion inhibitors protect all metal and plastic materials commonly used in plant construction, including copper and aluminum, from corrosion, deposits and the formation of layers. In this way, the system efficiency will be maintained. Seals are not attacked by **KRONES celerol CL 7801**. The criteria of the certified enviro sustainability program are met.

Among others, its declared strengths are:

- can be mixed with all anti-freeze agents based on monopropylene glycol
- free of nitrite, nitrate, secondary amine, phosphate, borate and silicate
- non-toxic and readily biodegradable
- contains only corrosion inhibitors of water hazard class WGK 1

### Notification:

The concentrate should not be diluted to less than 25% by volume of cooling solution to retain the corrosion protection properties!



### Technical Data:

Appearance:	clear, blue colored liquid
Pour point (°C):	< -50 °C
Density at 20°C; DIN 51757:	app. 1,04 g/cm <sup>3</sup>
Flash point; ASTM D 51758:	> 100 °C
Boiling point; ASTM D 1120:	> 166 °C
Refractive index nD20:	1,428 – 1,432
Water content:	< 1 %
pH value (1:1 with neutr. water 20 °C); ASTM D 1287:	7,5 – 8,5
Viscosity at 20 °C (mixture -20 °C)	3 – 5 mm <sup>2</sup> /s

All data are average values. The usual tolerances are valid.

### General information:

- The system should be flushed with water and all connections pressure tested for leaks before filling.
- The system should be filled with **KRONES celerol CL 7801** directly after the pressure test. Do not entrain air!
- The product should not be in contact with zinc-coated components because zinc is not resistant to glycol.
- The system in which the thermal transfer fluid circulates should be designed as a closed-loop system with membrane pressure compensation tanks according to DIN 4807.
- Oxygen entering the system consumes the corrosion inhibitors. Therefore, use only low-diffusion connecting elements and hoses.
- Soldered connections should be made with Ag or Cu brazing solder, otherwise the system must be flushed thoroughly.

### Corrosion and removal rates in g/m<sup>2</sup> (acc. to ASTM D 1384):

Material	Measured value [g/m <sup>2</sup> ]	Max. permitted value acc. to ASTM D 1384 [g/m <sup>2</sup> ]
Aluminum	-0,3	10
Soft Solder	0,9	10
Brass	0,2	3,6
Copper	0,2	3,6
Steek	0,2	3,6
Grey cast iron	0	3,6

### Test method for corrosion properties:

We recommend checking the coolant solution regularly (at least once every year).

You can check the corrosion properties of the coolant solution by reference to the pH value. The pH value should be > 7.5. Measure the pH value with a pH measuring strip. If the pH value is lower, replace the liquid.

### Material compatibilities:

Materials commonly used in plant and heating system construction are not attacked.

Incompatible materials are polyurethane elastomers, phenol formaldehyde resins and soft PVC.

### Anti-freeze table and measuring method:

KRONES celerol CL 7801 in % by vol.	Water in % by vol.	Krüss instrument		Refractometer	
		Brix	Ri	MPG scale	Anti-freeze
25	75	18,3	1,3612	-10 °C	-10 °C
30	70	21,5	1,3664	-12 °C	-12 °C
40	60	28,4	1,3784	-21 °C	-22 °C
50	50	34,2	1,3890	-33 °C	-35 °C

### Water requirements:

For long-term use as a cold or heat transfer medium, we recommend using desalinated or demineralized water for dilution.

**Minimum shelf life**

The minimum shelf life is approx. 12 months if the unopened packs are stored in a dry and frost-free place from the date of production.

**Material safety data sheet**

The current material safety data sheets can be requested at KIC KRONES at any time.

**Disposal note**

Refrigerant and empty containers are to be disposed of via authorized collection points. Refrigerants must not reach the environment.

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