



## NETTOGAZ GC+



Non contractual photo

### PRESENTATION

**NETTOGAZ GC+** is designed for the internal cleaning of refrigeration and air conditioning systems with a small volume (for industrial applications see *Facilisolv®*)

Developed by Climalife, it eliminates calamines, impurities (water or solid particles) present in systems before or after an incident. Its excellent cleaning power makes it particularly effective on all common refrigeration lubricants.

The properties of **GC+** allow for simple use.

### CHARACTERISTICS

Appearance .....	colourless liquid
Boiling point at 1.013 bar absolute pressure .....	+ 20 °C
Liquid density at +20°C .....	1.27 kg/dm <sup>3</sup>
Vapour pressure absolute at +20°C .....	0.11 bar
Kauri Butanol Index .....	> 80
ODP .....	None
Flash point .....	None

### USE

Perfect internal cleanliness in a refrigeration system circuit is essential to avoid system failure or damage.

Impurities in the circuit, whether they be water, solder residues or solid contaminants such as calamines and oxides, can cause system failures.

Many causes of contamination can be encountered.

The most common include:

- Engine "burn out" in hermetic or semi-hermetic units.
- The presence of water in the system.
- Oil deterioration.
- Acid formation.
- Build-up of oxides around the soldered and brazed parts if performed without using neutral gas.

Flushing is required:

- In some cases before putting a new installation into service,
- Following pollution or damage that has contaminated the circuit of an installation in service.



## COMPATIBILITY OF GC+ WITH MATERIALS AND ELASTOMERS

GC+ does not attack most metals and alloys currently used in the industry

Metals	Plastics	Elastomers
Steel	Epoxy resins	Butyl rubber*
Copper	Polyethylene	Natural rubber*
Aluminium	Polyester	Polysulphide
Iron	PTFE	Nylon EPDM
Stainless steel		PE chlorosulphone
Bronze		Buna-S*
Zinc		

\*slight swelling

Compatibility after a one-hour exposure period at boiling temperature.

Butyl rubber is recommended for extended exposure > 1 month.

Exception: swelling of PTFE and silicone rubber.

## USE OF NETTOGAZ GC+

NETTOGAZ GC+ is filled in aluminium cylinders pressurized with anhydrous nitrogen and a 30-litre recovery barrel is provided to collect and store the contaminated product after use.

A **reusable** application set to recover the GC+ is supplied as a compulsory item with the 1<sup>st</sup> order. It includes:

- 2 special plugs: one with a diameter of ¾" and one with a diameter of 2" equipped with a plunging hose to monitor the filling of the recovery barrel,
- 1 flexible 25-metre PVC hose with a diameter of 10 x 14 that can be cut at the required length for the connections.
- 2 clamping braces for the PVC hose with a diameter of 10 X14.

The initial compulsory set can be ordered separately afterwards.

**In the case of contamination by water present in the circuit, it is recommended to flush it with nitrogen before using NETTOGAZ GC+.**

**Industrial application: contact us**

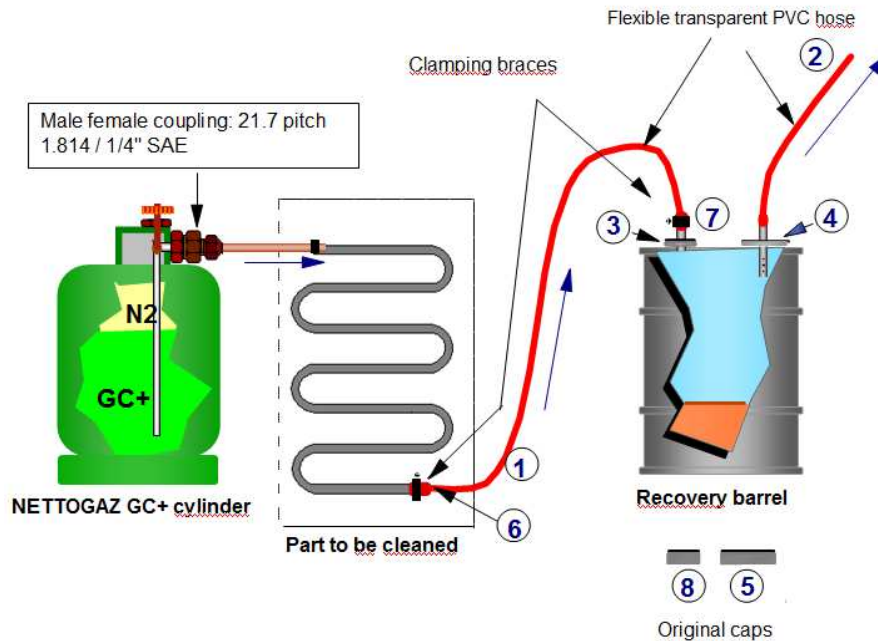


## NETTOGAZ GC+

### INSTALLATION CLEANING PROCEDURE

Before starting, check that all plugs and clamping braces are fitted correctly.

### USING NETTOGAZ GC+



- Connect the part to be cleaned with the liquid valve of the **NETTOGAZ GC+** cylinder.
- Connect the output of the part to be cleaned to the special plug③ of the recovery barrel with a suitable length of flexible PVC hose①. Tighten the two extremities of the PVC hose using the clamping braces ⑤ and ⑥.
- Connect a length of the PVC hose② to the Ø 2" special plug ④ to evacuate any **NETTOGAZ GC+** fumes to outside of the room and into the open air.
- Let the **NETTOGAZ GC+** circulate by activating the circulation through pulsations obtained by quickly alternating opening and shutting the valve of the cylinder so as to create a "water hammer" effect on the fluid.
- The transparent PVC hose① allows the flow of the **NETTOGAZ GC+** to be monitored.
- Stop the circulation when the **GC+** is clear as it flows out of the circuit.
- Flush with anhydrous nitrogen without exceeding 10 bars of pressure to recover the **GC+** liquid present in the circuit.

At the end of the liquid evacuation, reduce nitrogen pressure in order to avoid deformation of the barrel and vacuum pump the circuit. In order to make sure that all the **NETTOGAZ GC+** injected into the installation has been recovered check that the weight of the quantity recovered is equal to the quantity injected.

#### **THE RECOVERY BARREL MUST NEVER BE COMPLETELY FILLED.**

The level of liquid must never go over the extremity of the plunging hose on the special plug with a diameter of 2"④.



NETTOGAZ GC+

climalife®

### RECOVERY OF THE GC+ IS OBLIGATORY

The company that returns the **GC+** must complete a waste tracking document. The waste code for **GC+** is the 140602 category.

It is obligatory to identify the recovery barrels with the Bristol card label provided that has been perfectly completed and **returned to the Climalife Groupe Dehon.**

### QUANTITY OF GC+ TO USE

The approximate quantity of **GC+** can be extrapolated from the quantity contained at 20 °C in 1 linear meter of:

- ¼' pipe ..... approx. 40 g
- 3/8' pipe..... approx. 90 g
- 1/2' pipe..... approx. 160 g
- 5/8' pipe ..... approx. 240 g
- ¾' pipe .....approx. 350 g
- 7/8' pipe .....approx. 480 g
- 1 1/8' pipe.....approx. 800 g
- 1 3/8' pipe.....approx. 1200 g

### PRECAUTIONS FOR USE

**NETTOGAZ GC+ is non-flammable.**

Never clean the inside of a compressor with **NETTOGAZ GC+**.

The control mechanisms must always be cleaned separately and not during circulation of **GC+** in the circuit.

It is recommended to clean every part of the refrigeration circuit separately.

Never pressurize **NETTOGAZ GC+** with compressed air or oxygen.

The **GC+** fumes are heavier than air.

Ventilate work areas by using an exhaust system in the lower part of rooms and the liquid must not be used in underground levels or cellars without taking the necessary measures.

**NETTOGAZ GC+** pressurized with nitrogen is regulated in the same manner as refrigerants - Class 2 - Danger code 20.

Nature: mixture of solvents pressurized with nitrogen.

The information contained in this product document is the result of our studies and our experience. It is given in good faith, but cannot be considered a guarantee nor imply responsibility, especially where it may affect third party's rights, or where users do not meet the legal requirements concerning our products.

For any further information, visit our website:



[http://www.climalife.dehon.com/contact\\_us](http://www.climalife.dehon.com/contact_us)

Copyright© 2015 - dehon service SA - All rights reserved.