

## TEHNICAL DATA SHEET

### CLEANEX TOTAL

#### Acid scale remover for thermal installation

#### 1. OVERVIEW

This technical data sheet, drawn up on the basis of the technical specification, refers to the CLEANEX TOTAL descaler. The product is an acid solution, inhibited anticorrosive, with antifoams and pH indicator, used in heavy cleaning where are deposits of limestone, rust, sludge and magnetite.

#### 2. FIELD OF USE

It is used for removing crusts and deposits from boilers, heat exchangers and other installation elements, made of stainless steel, aluminum, copper, iron, steel, cast iron.

Exceptions are zinc components and their alloys.

Used in the recommended concentrations, the product does not attack the rubber gaskets.

#### 3. INSTRUCTIONS FOR USE

1. Dilute the scale remover with water in a proportion of 10% - 20%, depending on the degree of encrustation, at a temperature of 20-30°C.
2. Circulate the solution in the installation with a descaling pump with plastic tank and directional valve, 40-60 minutes with reversal every 20 minutes.
3. Follow the descaling phenomenon by means of the color indicator (red) at acid pH. If the solution changes its color, add more scale remover in a 10% concentration.
4. If the product is still acid (red) and there are still deposits, extend the washing time by 60-120 minutes.
5. The reaction is accelerated if the recirculated solution can be heated to 40-50°C.
6. After descaling, empty the system and wash it thoroughly with water.
7. Refill the pump with 1% -4% ALKALINE NEUTRALIZER solution which circulates for 10-20 minutes. Rinse with water to a neutral pH - measured with a pH determination kit, or with a pH meter.
8. In order to protect the cleaned system from corrosion, it is recommended to fill the installation with CHEMSTAL thermotechnical antifreeze, or to introduce a corrosion inhibitor (INSTAL PROTECT 1%).

#### 4. LABOR AND ENVIRONMENTAL PROTECTION MEASURES

Product recommended for professional use; Wear protective equipment (antacid gloves, goggles, rubber apron or antacid coveralls) when handling the concentrated solution.

The product contains phosphoric acid, hydrochloric acid and inhibitors! In case of accidental burns, consult a doctor.

The provisions regarding the safety of work and the environment provided in the product safety data sheet will be observed. Do not use empty packaging for food storage.

### 5. TECHNICAL QUALITY CONDITIONS

No.	CHARACTERISTICS	CLEANEX TOTAL	
		Provided	Results
1	Appearance	red	red
2	pH ,max	1	<1
3	Corrosion on copper, in proportion with water 1:1, 3h at 40 °C	pass	pass
4	Corrosion on steel, in proportion with water 1:1, 3h, 40°C	pass	pass
5	Corrosion on stainless steel, in a 1:1 ratio with water, 3h at 40 °C	pass	pass
6	Corrosion on aluminum, in a ratio of 1:1 with water, 3h at 40°C	pass	pass

**Packaging:** The product is packed in 5 kg, 10 kg.

**Validity period:** 3 years in storage.