

## TEHNICAL DATA SHEET CLEANEX<sup>®</sup> Fe- Cu PLUS Fast-acting scale remover for boilers

### 1. OVERVIEW

Scale remover CLEANEX Fe- Cu Plus is an acid solution, inhibited anti-corrosion, containing antifoam and pH indicator, used to remove the crusts deposited on the surfaces of the installations that carry out the heat transfer process in the care of agents that water with high hardness.

The product is added with reaction accelerators to shorten the working time by approx. 30% compared to classic descaling products.

### 2. FIELD OF USE

It is used to remove limescale deposits and dirt from boilers, heat exchangers and other installation elements, made of copper, iron, steel, cast iron.

Exceptions are stainless steel, aluminum, zinc components and their alloys. Used in the recommended concentrations, the product does not attack rubber gaskets, iron, copper, steel and cast iron.

### 3. INSTRUCTIONS OF USE

1. Dilute the scale remover with water in a proportion of 5% - 25%, depending on the degree of incrustation, at a temperature of 20-30 °C.
2. Circulate the solution in the installation with a washing pump with plastic tank and check valve, 40-60 minutes, reversing the direction every 20 minutes.
3. The descaling phenomenon is followed by means of the color indicator (red) at acidic pH. If the solution discolors, it is supplemented with new descaling agent in a concentration of 10%.
4. If the product is still acidic (red) and there are still portions of 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, the installation is emptied and rinsed thoroughly with water.
7. The pump is charged again with a 1%-4% ALKALINE NEUTRALIZER solution that circulates for 10-20 minutes. It is rinsed with water, until a neutral pH - measured with a pH determination kit, or with a pH-meter.
8. In order to protect the cleaned system against corrosion, it is recommended to fill the installation with Thermotechnical Antifreeze from the CHEMSTAL range, or to introduce a corrosion inhibitor (INSTAL PROTECT 1%).

### 4. LABOR AND ENVIRONMENTAL PROTECTION MEASURES

**Product recommended for professional use;** Protective equipment must be worn when handling the concentrated solution (anti-acid gloves, protective glasses, rubber gloves or anti-acid coveralls).

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

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

### 5. TECHNICAL QUALITY CONDITIONS

No.	CHARACTERISTICS	CLEANEX Fe-Cu PLUS	
		Provided	Results
1	Appearance	red	red
2	pH ,max	1	<1
3	Corrosion on copper blade, ratio with water 1:1, 3h at 40 °C	pass	pass
4	Corrosion on steel, ratio with water 1:1, 3h, 40°C	pass	pass

**Packing:** plastic drums of 5 kg and 10kg. **Warranty period:** 5 years in storage.