

## Dirupure Set

Quickly and effectively removes blush deposits in stainless steel water systems and process equipment.

### USE

The Dirupure system reliably removes rouging on stainless steel surfaces of the AISI 316L, AISI 316 TI or AISI 904L grades in a short time.

This novel process works under pH-neutral conditions and thus meets the increased requirements for plant and environmental protection.



Due to the controlled process control, the Dirupure system is suitable for use in plants of the:

- pharmaceutical production
- biotechnological production
- Cosmetics industry
- Pure water supply in the hospital

The Dirupure system is used for derouging operations of:

- Water systems WFI (loop and storage tank)
- Ultrapure steam systems
- Process containers, e.g. in vaccine production
- Autoclave
- Washing machines



Before



Afterwards

### The advantages at a glance

The new process, developed by Ateco Services AG, offers important advantages over conventional processes:

- Short process time
- pH-neutral process
- Increased occupational safety
- Simple in-process control
- Fast results
- Proven procedure
- Highly effective
- Excellent material compatibility
- Halide-free
- Validated verification methods
- No nitrogen overlay

## **PROPERTIES**

The naturally occurring passive layer of stainless steel surfaces can age and form a rust-red coating, known as rouging. Rouging is generally not accepted due to the fear that foreign particles could be released from the pads.

Furthermore, rubbers from Rouge endanger safe process control based on defined surface conditions. The solution for removing blush: the Dirupure system is an innovative, patented derouging process that quickly shows optimal results at a neutral pH value.

This system consists of the liquid component Dirupure LIQ and the powder component Dirupure P. This is added shortly before use.

## **INGREDIENTS**

Active substances:

Dirupure LIQ: chelating agent, corrosion inhibitor

Dirupure P: Reducing agent

Process parameters for derouging process	20 – 85 °C, depending on the type and condition of the pavement
Temperature:	Ambient air
Atmosphere:	0.5 h to 2 h, depending on the type and condition of the surface
Duration:	
Dirupure LIQ	2.0 % (V/V)
Dirupure P	8.0 % (V/V)

## **INSTRUCTIONS FOR USE**

The Dirupure system is ideal for spraying and flooding processes or for derouging operations of transfer lines.

Please ask us for detailed work instructions on

- Flooding methods (batch tanks, pipes, etc.)
- Spraying processes in closed systems (CIP spraying processes, cleaning machines)
- Checking the activity of the derouging solution
- Checking the effectiveness of the procedure (monitoring)
- Detection method in the trace range for possible residues from the derouging process

## **Neutralization**

None necessary. Process water and rinsing water can be disposed of without further treatment. Please note the local regulations on wastewater.

## **Residue analysis/ cleaning validation**

Suitable analytical methods for the detection of possible residues of the process chemicals are available.

## **MATERIAL COMPATIBILITY**

Suitable for: Stainless steel 1.4301, 1.4401, 1.4404, 1.4435, 1.4571, 1.4539

PP, PVC, PE, PTFE, PVDF, EPDM, Silicones, PEEK, Glass

For materials not mentioned, separate compatibility studies must be carried out or commissioned from Ateco Services AG.

## **CHEMICAL/PHYSICAL DATA**

Dirupure LIQ	pH	4.5 (1 %)
	Density	1.08
	Appearance	clear, colourless to slightly yellowish
	pH	6.0 (1 %)
	Appearance	white powder

## **DELIVERY**

The Dirupure system is available in a practical set.

1 set for 50 l of ready-to-use solution consists of:	1 set for 250 l Utility solution consists of:	1 set for 1,000 l of ready-to-use solution consists of:
Dirupure LIQ 1.0 l Dirupure P 4.0 kg	Dirupure LIQ 5.0 l Dirupure P 20.0 kg	Dirupure LIQ 20.0 l Dirupure P 80.0 kg

Dosing aids such as pumps, measuring cups, dosing devices, etc. are available. Please ask for the appropriate documents.

The containers, closures and labels are made of recyclable polyethylene.

## **ADDITIONAL INFORMATION**

For information on occupational safety, storage and disposal/wastewater, please refer to the safety data sheet for this product.

Benefit from our expertise! Ask us for practical information about your specific application  
Dirupure for the highest demands

Dirupure products have been specially developed for validatable cleaning.

Our services and products allow an individual, optimally coordinated and effective cleaning process.

## **Process Control – Activity Audit**

Periodically check the activity of the derouging solution. The simple and quick method is to add 9 drops of ACDS solution to 200 ml of the ready-to-use solution.

Item No.	Designation
ACDS-020	ACDS Activity Check for Derouging System 1 bottle of 50ml ACDS solution