

## Diruneutra LIQ/P

Diruneutra LIQ/P effectively and rapidly removes rouge deposits from water systems and stainless steel process equipment.

### Application

The Diruneutra system reliably removes rouge from stainless steel surfaces of the following grades:

- AISI 316L
- AISI 316 TI
- AISI 904L

This innovative process operates under pH-neutral conditions, meeting increased environmental and equipment protection requirements. Due to its controlled process management, Diruneutra is suitable for use in:

- Pharmaceutical production
- Biotechnology manufacturing
- Cosmetic industry
- Hospital ultrapure water systems

Diruneutra is particularly effective for derouging in:

- WFI (Water for Injection) systems (loops and storage tanks)
- Ultrapure steam systems
- Process vessels (e.g., vaccine production)
- Autoclaves

### Key Advantages

Developed by Ateco Services AG, this new process offers significant advantages over conventional methods:

- Short processing times
- pH-neutral process
- Increased work safety
- Simple in-process control
- Rapid results
- Proven method
- Highly effective
- Excellent material compatibility
- Halogen-free
- Validated detection procedures
- No nitrogen overlay required

### Properties

Stainless steel surfaces naturally develop a passive layer, which can degrade over time, leading to the formation of reddish deposits known as rouging. Rouging is generally considered undesirable due to concerns that foreign particles may be released from these deposits. Furthermore, rouge deposits can compromise process reliability by altering defined surface conditions.

The Diruneutra System provides an innovative, patent-pending solution for removing rouge under neutral pH conditions, delivering optimal results quickly.



The system consists of two components:

- Diruneutra LIQ – Liquid component
- Diruneutra P – Powder component (added just before use)

### **Ingredients**

Active Substances:

- Diruneutra LIQ: Chelating agents, corrosion inhibitors
- Diruneutra P: Reducing agents
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### **Dosage & Process Parameters**

#### **Derouging Process Parameters:**

- Temperature: >70°C
- Atmosphere: Oxygen-free (residual oxygen <0.5%)
- Duration: 0.5 to 4 hours (depending on deposit type and condition)

#### **Dosage:**

- Diruneutra LIQ: 2.0% (V/V)
- Diruneutra P: 0.6% (W/V)
- Diruclean NS: 0.3% to 0.5% (V/V)

### **Application Instructions**

The Diruneutra System is highly suitable for flooding procedures and derouging of transfer pipelines.

For detailed operating instructions, contact us regarding:

- Flooding procedures (storage tanks, pipelines, etc.)
- Spray processes in closed systems (CIP spray processes, cleaning machines)
- Activity testing of the derouging solution
- Effectiveness monitoring of the process
- Trace analysis for potential derouging process residues

### **Rinsing Process**

Adding Diruclean NS at the end of the derouging process improves rinsing properties.

### **Neutralization**

No neutralization is necessary. Process and rinse water can be discharged without further treatment. Please follow local wastewater regulations.

### **Residue Analysis / Cleaning Validation**

Suitable analytical methods for detecting potential process chemical residues are available.

### **Material Compatibility**

Compatible Materials:

- Stainless Steel: 1.4301, 1.4401, 1.4404, 1.4435, 1.4571, 1.4539
- Plastics & Others: PP, PVC, PE, PTFE, PVDF, EPDM, Silicone, PEEK, Glass

For other materials, individual compatibility testing is required or can be requested from Ateco Services AG.

## **Chemical / Physical Data**

### **Diruneutra LIQ**

- pH Value: 4.5 (1%)
- Density: 1.08
- Appearance: Clear, colorless to slightly yellowish liquid

### **Diruneutra P**

- pH Value: 8.0 (1%)
- Appearance: White powder

## **Delivery**

Diruneutra System is available in convenient sets.

Set for 250 L of working solution:

- Diruneutra LIQ: 5.0 L
- Diruneutra P: 1.5 kg
- Diruclean NS: 1.0 kg

Set for 1,000 L of working solution:

- Diruneutra LIQ: 20.0 L
- Diruneutra P: 6.0 kg
- Diruclean NS: 6.0 kg

Dosing accessories such as pumps, measuring cups, and dispensers are available upon request. The containers, closures, and labels are made of recyclable polyethylene.

## **Additional Information**

For information regarding workplace safety, storage, and wastewater disposal, please refer to the product's Safety Data Sheet.

Leverage our expertise! Contact us for practical guidance on your specific application.

### **Diruneutra – Meeting the Highest Standards**

Diruneutra products are specifically developed for validated cleaning processes.

## **Process Control – Activity Testing**

Periodically check the activity of the derouging solution. A simple and fast method involves adding 9 drops of ACDS solution to 200 mL of working solution.

### **Order Details:**

- Article No.: ACDS-020
- Product: ACDS Activity Check for Derouging System
- Packaging: 1 bottle (50 mL ACDS solution)

Detailed instructions for using ACDS are available from Ateco Services AG.