

# riag Clean 615

## Mild alkaline soak degreasing process

**riag Clean 615** is a soak degreasing process with very good cleaning properties, which is preferably used for aluminium and its alloys, but also for copper, zinc and steel. Copper and non-ferrous metals are partially discoloured and must be tested for application. The corrosion on aluminium is mostly not measurable or very low, depending on the alloy.

### Properties

- Powder
- Universally applicable, especially suitable for aluminium
- mildly alkaline
- Emulsifying (good oil absorption capacity)

### Ingredients

- Phosphates
- Carbonates
- nonionic surfactants

### Make up of 100 Litres riag Clean 615

		soak degreaser
<b>riag Clean 615 Salt</b>		3.5 – 6.0 kg
<b>riag Clean 667 Emulsifier (optional)</b>		0.0 – 0.5 L
Temperature		40 – 60 °C
Time		as needed
Density (20 °C)		Standard value
<b>riag Clean 615 Salt</b>	15 g/L	1.029 g/mL
<b>riag Clean 615 Salt</b>	45 g/L	1.038 g/mL
<b>riag Clean 615 Salt</b>	60 g/L	1.050 g/mL

## Make up

The tank is filled to  $\frac{2}{3}$  with water and heated to approx. 40 °C. Add the required amount of **riag Clean 615 Salt** and stir until the salt is dissolved. If required, the optional amount of **riag Clean 667 Emulsifier** is added, fill up with water to the final volume. After reaching the working temperature the electrolyte is ready for use.

## Operating parameters

Agitation	Recommended (shorter treating time), as it supports the cleaning process
Tanks	Plastic or lined steel, when using ultrasonic high alloy steel
Heating	High-alloy steel or glass-immersion heaters, thermostatic control is recommended
Pickling attack / Inhibition when cleaning Al	<p>If necessary, the basic inhibiting effect can be further increased by adding the optional <b>riag Clean 615 Inhibitor</b>. It is recommended that a fixed ratio of <b>riag Clean 615 Inhibitor</b> and <b>riag Clean 615 Salt</b> be used together. riag is happy to help you determine the ideal composition through preliminary tests.</p> <p>When operating at higher temperatures (above 50 °C) and/or higher concentrations of <b>riag Clean 615 Salt</b> (especially above 50 g/L or together with temperatures above 50 °C) the inhibiting effect decreases.</p> <p>At 60 °C a clear pickling attack is achieved. This can be used specifically to pretreat different materials in different ways. A reduced service life must be expected.</p>
Fume extraction	recommended
Water	To ensure the longest possible service life and trouble-free use, we recommend the use of reverse osmosis, demineralised or de-ionised water.

## Maintenance

The **riag Clean 615** process can be prepared with different concentrations, depending on the application.

The concentration has to be checked after each make up by analysis or density to stay in the desired working range.

Replenishment should be carried out in the same ratio as the make up.

## Environmental considerations

All concentrates, rinse waters and waste solution must be treated and discharged in accordance with local effluent control regulations. Further information can be gleaned from the MSDS. Chemicals may not be stored below 10 °C:

## Liability

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riag Oberflächentechnik AG  
Murgstrasse 19a  
CH-9545 Wängi  
T +41 (0)52 369 70 70  
F +41 (0)52 369 70 79  
riag.ch  
info@riag.ch

## Analysis (Analytical methods)

### Sample preparation:

The sample must be taken from a well-mixed location and allowed to cool down to 25 °C.

### Reagents:

Hydrochloric acid 1 mol/L  
Methyl orange solution 0.1 % in water

### Procedure:

20 mL **riag Clean 615** is transferred via pipette into a  
250 mL beaker, add  
100 mL deion. water, add  
3 drops methyl orange solution

Titrate with hydrochloric acid 1 mol/L from yellow to red

### Calculation:

**riag Clean 615 Salt** (g/L) = use of HCl in mL x 4.07

If the degreasing process doesn't work properly, even though the concentration is within the desired range, a new makeup is necessary.

### Attention:

If riag Clean 615 Inhibitor is added to the electrolyt a modified factor must be used. In this case it is advisable to maintain a constant ratio with the riag Clean 615 Salt to facilitate the analysis.

Chemicals not intended to be added to the process may disturb and influence the quality of the processed surfaces.