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# riag Clean 604

## All-purpose degreasing process

**riag Clean 604** is a highly alkaline degreasing process for iron and copper alloys in immersion or spray applications.

### Properties

- Suitable for iron, steel, brass or copper
- Highly alkaline powder
- Suitable for spray applications
- Emulsifying (in combination with **riag Clean 668 Emulsifier**)

### Ingredients

- Sodium hydroxide
- Phosphates
- Organic acid sodium salt

### Make up of 100 Litres

	spray	soak	electrolytical
<b>riag Clean 604 Salt</b>	1 – 3 kg	2 – 5 kg	8 – 10 kg
<b>riag Clean 668 Emulsifier</b>	0.2 – 0.6 L	0.4 – 1.0 L	1.6 – 2.0 L
Temperature	50 – 90 °C	50 – 70 °C	20 – 40 °C
Time	1 – 5 min.	2 – 10 min.	1 – 5 min.
Spraying pressure	0.5 – 3 bar		

### Density (20 °C)

		Standard value
<b>riag Clean 604 Salt</b>	10 g/L	1.009 g/cm <sup>3</sup>
<b>riag Clean 604 Salt</b>	50 g/L	1.048 g/cm <sup>3</sup>
<b>riag Clean 604 Salt</b>	100 g/L	1.092 g/cm <sup>3</sup>

## Make up

The tank is filled to  $\frac{2}{3}$  with water and heated to approx. 40 °C. Add the calculated amount of **riag Clean 604 Salt** and stir until the salt is dissolved. Adjust the required amount of detergents (**riag Clean 668 Emulsifier**) and finally add water up to the working level. Once the cleaner has reached its working temperature, it 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	Immersion heaters, but thermostatic control is essential.
Fume extraction	Recommended
Water	Tap water may be taken for the makeup, however the use of low calcium or DI water is recommended.

## Maintenance

**riag Clean 604** is used with different concentrations, due to the various possibilities of application. The concentration has to be checked after each make up by analysis or density to stay in the desired working range.

The replenishment of the **riag Clean 604 Salt** and **riag Clean 668 Emulsifier** should be carried out in the same ratio as the make up. This ratio is usually 5 : 1.

## 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:

Take sample from a well-mixed location and allow to cool down to 25 °C.

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

Procedure: 10 mL **riag Clean 604** are transferred via pipette into a  
250 mL beaker, add  
100 mL deion. water, add  
5 drops methyl orange solution

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

Calculation: **riag Clean 604 Salt** (g/L) = use of HCl in mL x 4.95

Adding 1.0 g/L **riag Clean 604 Salt** will increase the density 0.001 g/cm<sup>3</sup>.

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

### Attention:

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