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riag Clean 609

High alkaline degreasing process

riag Clean 609 is a soak cleaning process, which is intended to use for iron and steel. Nonferrous metals alloys should be tested in practice.

Properties

- Suitable for iron, steel and copper (limited use for copper alloys)
- High alkaline powder
- Emulsifying (in combination with * **riag Clean Emulsifier**)

Ingredients

- Sodium hydroxide
- Organic acid sodium salt

Make up of 100 Litres

	soak
riag Clean 609 Salt	2 – 5 kg
* riag Clean Emulsifier	0.1 – 1.0 L
Temperature	40 °C – 70 °C
Time	1 – 20 min.

* different options possible

Density (20 °C)		Standard value
riag Clean 609	20 g/L	1.017 g/mL
riag Clean 609	50 g/L	1.043 g/mL

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 609 Salt** and stir until the salt is dissolved. Adjust the required amount of * **riag Clean 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 609 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 609 Salt** and * **riag Clean 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:

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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 0.1 mol/L
 Methyl orange solution 0.1 % in water

Procedure: 1 mL **riag Clean 609** is transferred via pipette into a
 250 mL beaker, add
 100 mL deion. water, add
 5 drops methyl orange solution
 Titrate with hydrochloric acid 0.1 mol/L from yellow to red

Calculation: **riag Clean 609 Salt** (g/L) = use of HCl in mL x 5.2

Adding 1.0 g/L **riag Clean 609 Salt** will increase the density 0.001 g/cm³.

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.