

25.07.2014

riag Clean 601

All-purpose degreasing process

riag Clean 601 is an alkaline degreasing process for iron and nonferrous metals.

Properties

- Suitable for iron, steel, brass, copper, magnesium or aluminium
- Alkaline powder
- Emulsifying (in combination with **riag Clean 667 Emulsifier** or **riag Clean 678 Emulsifier**)

Ingredients

- Silicates
- Carbonates
- Phosphates

Make up of 100 Litres

	ultrasonic	soak	spray
riag Clean 601 Salt	1 – 3 kg	2 – 5 kg	0.5 – 1 kg
riag Clean 667 Emulsifier*	0.2 – 0.6 L	0.4 – 1.0 L	0.1 – 0.2 L
riag Clean 678 Emulsifier*	0.2 – 0.6 L	0.4 – 1.0 L	unusable
Temperature	40 – 70 °C	60 – 80 °C	70 – 90 °C
Time	1 – 5 min.	1 – 10 min.	

Density (20 °C)

riag Clean 601 Salt	20 g/L	Standard value 1.013 g/cm ³ 1.035 g/cm ³
riag Clean 601 Salt	50 g/L	

*depending on the type of oil or grease to be removed

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 601 Salt** and stir until the salt is dissolved. Adjust the required amount of detergents (**riag Clean 667 Emulsifier** or **riag Clean 678 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 601 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 **riag Clean 601 Salt** and **riag Clean 667 Emulsifier** or **riag Clean 678 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

This instruction manual was compiled with reference to the state of the art and all current standards, and is based on the long-term knowledge and experience of riag. However, riag cannot monitor compliance with this instruction manual and the methods described herein at the customer/end-user's premises. Work carried out with riag products must be adapted accordingly to meet local conditions. In particular, riag cannot accept liability for damage, loss or cost incurred due to a failure to adhere to this instruction manual, improper application of the methods, unauthorised technical modifications, insufficient maintenance or the absence of maintenance in respect of the requisite technical hardware or equipment, or in the event of use by unqualified personnel. riag is not liable for damage or loss caused by riag or its employees except where intention or gross negligence can be proved. riag furthermore reserves the right to make changes in relation to products, methods and the instruction manual without prior notice.

Our goods and services are subject to the General Terms and Conditions for Delivery of the Association of Surface Technology Suppliers (VLO), which can be viewed at www.riag.ch (link "terms and conditions", document "General Terms and Conditions for Delivery", version 3/2018), which we gladly send you on request.

This transaction is governed by material Swiss law (Law of Obligations), excluding private international law (conflict of laws) and intergovernmental treaties, specifically the CISG.

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: 50 mL **riag Clean 601** 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 601 Salt** (g/L) = use of HCl in mL x 2.00

Adding 1.3 g/L **riag Clean 601 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.