

# SurTec® 472

## Acid Cleaner

### Properties

- liquid acid concentrate
- free of surfactants
- oxides are easily removed
- excellent clarification of aluminium and nonferrous metals
- aluminium surfaces slightly become matt
- suitable for ultrasonic application
- iron and steel will be attacked

### Application

SurTec 472 is applied in soak-, spray- and ultrasonic processes, in combination with a suitable surfactant from the SurTec range (e. g. SurTec 089 for soak- and ultrasonic application, SurTec 086 for spray application). Oil, grease and pigments are removed fast and completely.

make-up values:	3 %vol SurTec 472	(2-5 %vol)
	+ 0.2-1 %vol surfactant	
make-up:	Fill water into the tank. Then add the desired amount of SurTec 472 portion by portion.	
temperature:	60 °C	(40-80 °C)
application time:	5 min	(1-15 min)
agitation:	ultrasonic if desired	
tank material:	steel with acid resistant coating	
heating:	necessary; of acid resistant material	
cooling:	not necessary	
exhaust:	required for worker's protection	

### Technical Specification

(at 20 °C)	Appearance	Density (g/ml)	pH-value (at 10 g/l)
SurTec 472	liquid, colourless-yellowish	1.356 (1.30-1.40)	approx. 1.8

### Maintenance and Analysis

Analyse and adjust the concentration of SurTec 472 regularly.

#### Sample Preparation

Take a sample at a homogeneously mixed position. Let it cool down to room temperature. If the sample is turbid, let the turbidity settle down and decant or filter the solution.

## SurTec 472 – Analysis by Titration

reagents:	sodium hydroxide solution indicator: methyl orange solution (0.04 %)
procedure:	1. Pipette 5 ml bath sample into a 250 ml Erlenmeyer flask. 2. Dilute to approx. 100 ml with deionised water. 3. Add 3 drops of indicator. 4. Titrate with 0.1 N sodium hydroxide solution from red to yellow.
calculation:	consumption in ml · 0.244 = %vol SurTec 472

## Ingredients

- phosphoric acid
- organic acids
- sulfuric acid

## Stock Keeping

In order to prevent delays in the production process, per 1,000 l bath, the following amount should be kept in stock:

SurTec 472 Acid Cleaner          60 kg

## Product Safety and Ecology

The safety instructions and the instructions for environmental protection have to be followed in order to avoid hazards for people and environment. The Material Safety Data Sheets (according to European legislation) contain explicit details for this.

The following hazard designations and classifications into water hazard classes (WHC) have to be taken into account:

<u>product</u>	<u>hazard designation</u>	<u>water hazard class</u>
SurTec 472	C - Corrosive	WHC 1

## Warranty

We are responsible for our products in the context of the valid legal regulations. The warranty exclusively accesses for the delivered state of a product. Warranties and claims for damages after the subsequent treatment of our products do not exist. For details please consider our [general terms and conditions](#).

## Further Information and Contact

In our forum, you can discuss topics of the surface technology:  
<http://forum.SurTec.com/>

If you have any questions concerning the process, please contact your local technical department: <http://SurTec.com/International.html>