

SurTec® 415

Emulsifying Detergent Booster

Properties

- liquid concentrate
- emulsifying with high oil absorption
- very good lowering of the surface tension, well dissolving of pigments
- also suitable for ultrasonic applications
- good soluble also in high alkaline medium
- can be used together with SurTec 194, SurTec 138 or even only with sodium hydroxide for cleaning, descaling, dephosphating and delacquering (depending on the type of lacquer) of steel and iron
- can be used as detergent booster, together with a builder suitable for all materials

Application

1. Immersion cleaning without ultra sonic

a) degreasing

make-up values:

SurTec 415	2 %vol	(1-3 %vol)
+ SurTec 194 or NaOH (50 %)	5 %vol	(4-7 %vol)

or

SurTec 138	4 %vol	(2-8 %vol)
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temperature:	60 °C	(50-80 °C)
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application time:	5 min	(2-20 min)
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b) descaling/derusting

make-up values:

SurTec 415	5 %vol	(4-7 %vol)
+ SurTec 194 or NaOH (50 %)	18 %vol	(13-26 %vol)

temperature:	70 °C	(60-80 °C)
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application time:	10 min	(5-30 min)
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c) dephosphating

make-up values:

SurTec 415	9 %vol	(6-12 %vol)
+ SurTec 194 or NaOH (50 %)	18 %vol	(13-26 %vol)

temperature:	70 °C	(60-80 °C)
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application time:	10 min	(5-30 min)
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d) delacquering

make-up values:

SurTec 415	7 %vol	(4-9 %vol)
+ SurTec 194 or NaOH (50 %)	20 %vol	(13-32 %vol)

temperature:	70 °C	(60-80 °C)
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application time:	10 min	(5-30 min)
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2. Immersion cleaning with ultra sonic

for degreasing, descaling, derusting, dephosphating and for removal of polishing paste from stainless steel

make-up values:

SurTec 415	2 %vol	(1-3 %vol)
+ SurTec 194 or NaOH (50 %)	5 %vol	(4-7 %vol)
or		
SurTec 138	4 %vol	(2-8 %vol)
temperature:	60 °C	(50-80 °C)
application time:	4 min	(1-10 min)

3. Booster for alkaline cleaners

improves the oil absorption and the lowering of the surface tension

make-up values:

builder	e.g. 5 %vol resp. %	
+ SurTec 415	0.5 %vol	(approx. 10 % of the added builder compound)
temperature:	60 °C	(50-80 °C)
application time:	4 min	(1-10 min)

4. Special application, without inorganic compounds

a) good rinsable ultra sonic cleaner

(suited for iron, steel, aluminium, glass and plastics; copper and its alloys will change their colour slightly)

make-up value:

SurTec 415	4 %vol	(3-5 %vol)
temperature:	60 °C	(50-80 °C)
application time:	2 min	(1-10 min)

b) for corrosion resistance

(easy to remove, suited for hard water, temporary corrosion resistance)

make-up value:

SurTec 415	2 %vol	(1-5 %vol)
temperature:	60 °C	(40-80 °C)
application time:	2 min	(1-5 min)

drying without rinsing in between

c) application as high pressure cleaner

(suited for iron, steel, lacquer, aluminium, glass and plastics; do not use pumps with components of copper and its alloys)

make-up value:

SurTec 415	1 %vol	(0.5-1.5 %vol)	at the nozzle outlet
temperature:	60 °C	(40-80 °C)	

Technical Specification

(at 20 °C)	Appearance	Density (g/ml)	pH-value (conc.)
SurTec 415	liquid, yellow-brownish	1.150 (1.13-1.17)	8.5 (8.2-9.7)

Maintenance and Analysis

Add SurTec 415 according to the analysis of the alkaline builder compound (see the product information sheet of the corresponding builder) or according to the grade of alkalinity and dose in the same ratio as for the make-up.

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.

Determination of the Alkalinity (NaOH)

reagents:	1 N hydrochloric or sulfuric acid indicator: phenolphthalein
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 1 N acid from red to colourless.
calculation:	consumption in ml · 0.798 = % NaOH

Ingredients

- nonionic surfactants
- anionic surfactants
- salts of organic acids

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 415 Emulsifying Detergent Booster 50 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 415	-	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>

15 December 2010/DK, OP