# elma product info

# elma lab clean S15 (ELC S15)

MILDLY ACIDIC CONCENTRATE FOR CLEANING AND PASSIVATION OF STAINLESS STEEL AND CHROMIUM-ALLOYED STEEL; FOR CLEANING OF NON-FERROUS & LIGHT METALS, GLASS, PLASTICS; FOR CLEANING & PASSIVATION OF MEDICAL AND LAB INSTRUMENTS

## **Description**

elma lab clean S15 (ELC S15) is suitable as well for the slightly acid ultrasonic cleaning of stainless steel, non-ferrous and light metals, for glass and plastics as for the "passivation" of stainless and less chromium-containing steels. Brass and copper alloys are brightened up.

Removes mineral grease & oil, oxide layers (e.g. verdigris), rust and lime.

The "passivating" action is based on the selective dissolution of oxidized iron atoms from the surface and the resulting increase of relative chromium content there. An eventual graying can be counteracted by addition of *elma beizzusatz S1* to the passivation solution (ratio: concentrate *ELC S15*: *elma beizzusatz S1* = 10:1).

### **Application and dosage**

Cleaning: 1-5 vol% with water, temp.:  $30-80^{\circ}$ C, about 2 min with ultrasonics. For rust-sensitive parts use rinsing bathes with added agent *elma-KS*, 0.1%, as corrosion protecting agent immediately after finishing the cleaning step.

Passivation: 10-20 vol%, 10-30 min at 30-80°C (e. g. AISI 316: 10%, 20 min at 70°C). We recommend: Passivation or acid cleaning process a f t e r alkaline cleaning in all cases of contamination with natural (vegetable or animal) oils or greases.

### Safety recommendations

elma lab clean S15 (ELC S15) is classified as hazardous according to the regulation (EC) No 1272/2008 [GHS] (eye irritation). Observe also with respect to this the hints indicated in the Safety Data Sheet and always handle chemicals with care.

### Physical-chemical characterisation

Density: 1,082 g/ccm, pH (concentrate): 1,6.

Ingredients according to Annex VII, A, EC-Regulation 648/2004 (detergents): <5% anionic surfactants, <5% non-ionic surfactants, Benzisothiazolinone ( <10 ppm ). Does not contain phosphates or silicates. Contains citric acid.

### **Disposal**

The surfactants in our product meet the criteria for biodegradation as laid down in Annex III of the Regulation (EC) No 648/2004 on detergents.

The cleaning bath can be fed into the public sewage system after neutralisation; observe the local pH limit values and make sure that the contamination contained complies with the local sewage regulations.

European waste code: 20 01 30, "detergents other than those mentioned in 20 01 29".

### Volumes, storage and transport

Available volumes: 2.5 litre, 10 litre and 25 litre HDPE-can.

Store in closed original container at a temperature between -5°C and +30°C, protected from heat and direct solar radiation. Do not store with alkalies.

Tel.: +49 7731 882-0

Fax: +49 7731 882-266

www.elma-ultrasonic.com

Shelf life: 3 years from date of production (see stamp on label).

Classification for all means of transport: no hazardous material.

### Elma Schmidbauer GmbH

Gottlieb-Daimler-Str. 17, D-78224 Singen E-Mail: info@elma-ultrasonic.com

04 10 2017 / (CR) Version 0.2

04.12.2017 / (GB) Version 0.2

