

## **elma clean 110 (EC 110)**

**LIQUID, ALKALINE ULTRASONIC CLEANING CONCENTRATE**  
**For metal, ceramic, plastics, silicium wafer and quarz-surfaces**

### **Description**

Suitable for the cleaning of:

- Metal, ceramic and quarz surfaces,
- surfaces of numerous plastic materials,
- rubber surfaces.
- particularly for the cleaning of silicium wafers after mechanical treatment (sawing).

Removes metal oxides, stains of quarz and tenacious organic contaminations, such as:

- scaled and gummy oil and grease,
- wax,
- residual lacquer and paint.

Not suitable for light metals (Al, Mg and their alloys); not suitable for plastics that are susceptible for stress cracking - check compatibility before use.

### **Application and dosage**

Dosage: 3 - 5 % in water, temperature: 50 - 90 °C, duration: 3 - 10 min in ultrasonic bath. Thoroughly rinse with water and dry.

For temporary corrosion protection of get rusty pieces use 0.1% "elma KS" within the cleaning bath or rinse bathes additionally.

### **Safety recommendations**

*elma clean 110 (EC 110)* is classified as hazardous according to the regulation (EC) No 1272/2008 [GHS] (skin corrosive and serious eye damage, corrosive to metals [aluminium]). Observe also with respect to this the hints indicated in the Safety Data Sheet and always handle chemicals with care.

### **Physical-chemical characterisation**

Density: 1.24 g/ccm, pH (1% solution): 12.4 .

Ingredients according to Annex VII, A, EC-Regulation 648/2004 (detergents): <5% anionic surfactants, <5% non-ionic surfactants, <5% phosphonates.

Does not contain phosphates and silicates. Emulsifying.

### **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; check the contamination contained in the used solution (observe the local pH and sewage regulations). For neutralisation we recommend: for 1 kg of the concentrate use approx. 715 ml 60% acetic acid or approx. 730 g water-free citric acid in an ultrasonic bath – do not use hydrochloric or sulfuric acid in ultrasonic bathes !

European waste code: 20 01 29\*, „detergents containing dangerous substances“.

### **Volumes, storage and transport**

Available volumes: 10 litre and 25 kg HDPE-can; 240 kg barrel.

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 acids.

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

Classification for all means of transport: class 8, UN 1824.

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