

1. Identification of the substance/preparation/company/undertaking

Product name: **Ultrasonic cleaners joke Clean 110**

Order No: 0 666 102-1 und 0 666 103-1

Supplier: joke Technology GmbH
Asselborner Weg 14-16
51429 Bergisch Gladbach
Germany

Telefon: +49 (0) 2204 839-0
Telefax: +49 (0) 2204 839-60

Advice: Markus Abstoss
Telefon: +49 (0) 2204 839-577
Telefax: +49 (0) 2204 839-540
E-Mail: m.abstoss@joke.de

2. Description

Suitable for the cleaning of:

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

Removes metal oxides, stains of quartz 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.

3. Application and dosage

- Dosage: 3 - 5 mass%, 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.

4. Safety recommendations

The concentrate is classified as Corrosive (C, R35) according to the German regulations on dangerous substances / EC directives. Observe the hints indicated in the Safety Data Sheet. Always handle chemicals with care.

4 . Physical-chemical characterisation

Density: 1.24 g/ccm, pH (1% solution): 12.4 . Ingredients according to Annex VII, A, ECRegulation 648/2004 (detergents): <5% anionic surfactants, < 5% non-ionic surfactants, <5% phosphonates. Does not contain phosphates and silicates. Emulsifying.

5. 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“.

6. Volumes, storage and transport

Available volumes: 2,5 l and 25 l 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 acids.

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

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