

# COSA™ PUR 83

Liquid, alkaline cleaner

Pigment removing additive for alkaline cleaning solutions

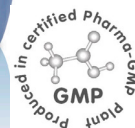
## Why COSA PUR 83?

### Effective

COSA PUR 83 is a cleaning additive for the removal of pigment-containing product residues in pharmaceutical processing equipment based on organic derived complexing agents. Due to its high dispersing capacity, this product provides the best performance for pigment removal. The product has good biodegradability, is surfactant-free and non foaming.

### Quality assurance

COSA PUR 83 can be controlled using conductivity. COSA PUR 83 is supported by a complete validation package including techniques for determining acceptable residual levels and analytical methods for residue quantitation.



### Documentation package

- Certificates of Analysis (CoA)
- Analytical Method Descriptions Residue Analysis
- Ecological Assessment (EA)
- Toxicological and Limit Setting Information (PDE)
- Safety Data Sheet (SDS)

### Subject to incoming goods control

|            |                                                                                                                                                                                                                        |         |                               |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------------|
| Appearance | Clear, reddish-brown liquid                                                                                                                                                                                            | Density | 1.27 - 1.31 g/cm <sup>3</sup> |
| Titration  | <b>Use solution:</b> 100 ml (1% solution) <b>Titrant:</b> 0.5 mol/l Hydrochloric Acid (HCl) <b>Endpoint:</b> pH value = 3.8<br><b>Consumption:</b> 3.3 - 3.6 ml                                                        |         |                               |
|            | % Alkalinity (expressed as K <sub>2</sub> O):<br>$\% \text{ Alkalinity as K}_2\text{O} = \frac{(\text{ml HCl to pH 3.8}) \times (0.1 \text{ mol/l}) \times (47) \times (100)}{\text{Sample weight [g]} \times (1000)}$ |         |                               |
|            | % Alkalinity (expressed as K <sub>2</sub> O): 7.755 - 8.460%                                                                                                                                                           |         |                               |

### Properties

|                        |                   |                                                                                                                                                                                    |
|------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Concentrate            | Storage stability | -5 - 35°C                                                                                                                                                                          |
|                        | Frost resistance  | Short time of frost is possible, product has to be homogenised after thawing                                                                                                       |
|                        | TOC               | 9.87%                                                                                                                                                                              |
|                        | pH                | 12.0 - 13.0 (20°C)                                                                                                                                                                 |
| Application solution   | Conductivity      | 2.52 mS/cm (1% deionised water)                                                                                                                                                    |
|                        | Foam behaviour    | Non-foaming                                                                                                                                                                        |
|                        | Rinse behaviour   | Following an alkaline cleaning step, all equipment should be rinsed thoroughly to remove all residues. Rinse water should be of minimum drinking water quality at any temperature. |
| Material compatibility | Water quality     | Minimum drinking water quality                                                                                                                                                     |
|                        | Metals            | COSA PUR 83 is, under the application described below, compatible with: Austenitic CrNi steels (quality at least DIN 1.4301 = AISI 304)                                            |
|                        | Plastics          | COSA PUR 83 is, under the application described below, compatible with: PE, PP, PVC, NBR, EPDM, PTFE                                                                               |

# COSA™ PUR 83

## Application

### Mode of application

COSA PUR 83 can be used as sole cleaning agent or as additive to alkaline cleaning solutions and is especially suitable for the removal of pigment-containing product residues in the pharmaceutical and cosmetic industries.

**General CIP application** (homogenisers, pipelines, tanks, etc)

**Concentration:** 1 – 3% COSA CIP solution (opt.), 1 - 3% COSA PUR 83 **Temperature:** 45 - 95°C (ideally 60 – 80°C) if added to COSA CIP, 5 – 95°C if solely used **Contact time:** depending on degree and type of soiling

Final rinse with water of minimum drinking water quality, ensuring all product residues are removed.

## Monitoring

### Conductivity

Specific conductivity of COSA PUR 83 (see graph below)

### Concentration control

In practice, it is suitable to determine the concentration of COSA PUR 83 by measuring the volume of the dosing pump and calculating the concentration used or perform time-proportional dosing (e.g. by means of Ecolab Elados EMP dosage pumps)

## Ecological evaluation

### Evaluation

- Well biodegradable
- Phosphate-free
- EDTA - / NTA - free
- Consider maximum permissible limits for pH values

### P-content

1.7%

### N-content

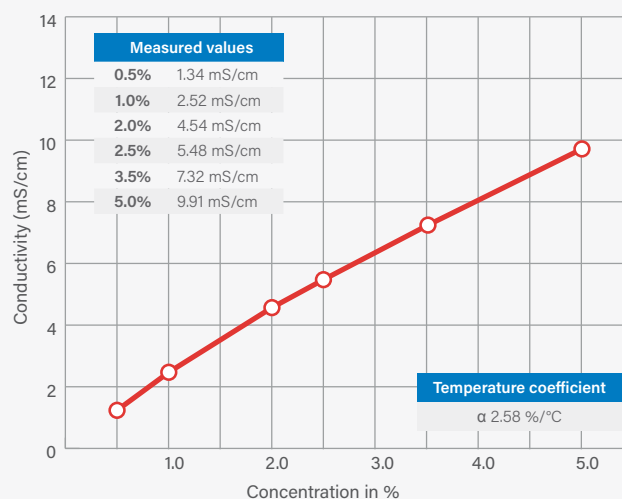
1.1%

### COD

226 - 266 mg O<sub>2</sub>/g

The complete ecological evaluation is available on the cleaning validation website [www.ecolab-cleaning-validation.com](http://www.ecolab-cleaning-validation.com)

## Specific conductivity (20°C, 0 °dH)



## Safety

The relevant hazard identifications of COSA PUR 83 are given in the Safety Data Sheet available at [safetydata.ecolab.eu](http://safetydata.ecolab.eu). If any questions arise in this context please contact your Ecolab representative.

A Toxicological Hazard Assessment is also available on the cleaning validation website [www.ecolab-cleaning-validation.com](http://www.ecolab-cleaning-validation.com)

**For product ordering information, please contact your Ecolab Account Manager or email [infoLS@ecolab.com](mailto:infoLS@ecolab.com)**

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