

COSA™ CIP 90

Mild alkaline cleaner

Mild alkaline formula allows for dual use in CIP or manual applications

Why COSA CIP 90?

Effective

This product has a broad cleaning ability with excellent soil removal of organic soils such as fat, oil, and oil-in-water emulsions. COSA CIP 90 is a mild alkaline formula which allows for dual use in CIP or manual applications.

Quality assurance

With its powerful blend of surfactants and sequestrants, COSA CIP 90 provides a high cleaning performance with low alkalinity and high soil-suspending power. COSA CIP 90 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, yellow liquid	Refractive index n_D^{20}	1.3782 - 1.3842
Titration	Use solution: 100 ml (1% solution) Titrant: 0.1 mol/l Hydrochloric Acid (HCl) Endpoint: pH value = 3.5		
	Consumption: 9.0 - 10.0 ml		
	% Alkalinity (expressed as Na_2O): $\% \text{ Alkalinity as } \text{Na}_2\text{O} = \frac{(\text{ml HCl to pH 3.5}) \times (0.1 \text{ mol/l}) \times (31) \times (100)}{\text{Sample weight [g]} \times (1000)}$		
	% Alkalinity (expressed as Na_2O): 2.79 - 3.10%		

Properties

Concentrate	Storage stability	0 - 40°C
	Frost resistance	Short time of frost is possible, product has to be homogenised after thawing
	Density	1.03 - 1.07 g/cm ³
	TOC	16.46%
Application solution	pH	8.9 - 9.9 (1%, 20°C, deionised water)
	Conductivity	584 µS/cm (1% deionised water)
	Foam behaviour	Non foaming > 50°C
	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 and preferably cold.
Material compatibility	Water quality	Minimum drinking water quality
	Metals	COSA CIP 90 is, under the application described below, compatible with: Steel, austenitic CrNi steels (quality at least DIN 1.4301 = AISI 304)
	Plastics	COSA CIP 90 is, under the application described below, compatible with: PE, PP, PVC, PTFE

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Application

Mode of application

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

Concentration: 1 - 3% COSA CIP 90 **Temperature:** 45 - 95°C (circulating manner)

Contact time: depending on degree and type of soiling

Before switching on the spray devices, it is recommended to heat up the solution to > 50°C to prevent the formation of foam. Concentration, temperature and cleaning time can be optimised by evaluation of respective cleaning trials.

Manual application

Concentration: 1 - 3% COSA CIP 90 **Temperature:** 15 - 50°C **Contact time:** depending on degree and type of soiling
Final rinse with water of minimum drinking water quality, ensuring all soil and product residues are removed.

Rinse recommendation: COSA CIP 90 is most effectively rinsed at temperatures below +40°C

Monitoring

Titration

Receiving flask: 100 ml application solution

Titration solution: n/2 hydrochloric acid (HCl)

Indicator: methyl orange

Titration factor: 0.49

Volume added in ml x 0.49 = % COSA CIP 90

Concentration control

In practice, it is suitable to determine the concentration of COSA CIP 90 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

- ▾ Very well biodegradable
- ▾ Phosphate-free
- ▾ Consider maximum permissible limits for pH values

P-content

0.34%

N-content

0.47%

COD

610 - 650 mg O₂/g

The complete ecological evaluation is available on the cleaning validation website www.ecolab-cleaning-validation.com

Safety

The relevant hazard identifications of COSA CIP 90 are given in the Safety Data Sheet available at 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

For product ordering information, please contact your Ecolab Account Manager or email infoLS@ecolab.com

WORLDWIDE HEADQUARTERS

1 Ecolab Place
St. Paul, MN 55102
USA

www.ecolab.com/lifesciences

EUROPE HEADQUARTERS

Richtistr. 7
8304 Wallisellen
Switzerland

www.ecolablifesciences.com

