



## TM SMART CIP

**HIGHLY CONCENTRATED, LIQUID ALKALINE CLEANER FOR ALL KIND OF BEER AND BEVERAGE LINES. VERIFICATION OF CLEAN BY MEANS OF COLOR CHANGE: PURPLE MEANS CLEAN**

### COMPOSITION AND DESCRIPTION

TM SMART CIP is an intelligent CIP-cleaner with integrated colour-change-effect. This technology provides dissolution properties for organic deposits like proteins, fats, saccharides, aromas, phenol compounds and oxalates by means of oxidation by hydroxyl radicals. It can also be used to detect organic deposits in pipe systems, vessels, tanks, heat exchangers or filling lines by means of a color indication system.

COLOR	purple/magenta liquid
APPLICATION TEMPERATURE	up to 70 °C (160 °F)
SPECIFIC GRAVITY	1,24 - 1,27 g/cm <sup>3</sup>
pH- VALUE (1% solution bei 20 °C)	12,5 - 14
SHELF LIFE	18 months from date of production
STORAGE	store in cool, dark environment

### AREAS OF USE

- Filling lines in the fruit juice or canning industry, dairies, delicatessen production
- Pasteurisation equipment for juices, fruit concentrates and functional drinks
- Cooking vessels for soup or sauce production
- Homogenisers and UHT equipment
- Heat exchangers in the brewery or winery
- Filling and production lines in the soft drink and mineral water industry

### APPLICATION

1. Pre-Cleaning/CIP: Apply TM SMART CIP as alkaline pre-cleaning step (CIP) in order to remove higher quantities of remaining fatty and solid product deposits. The aim of this pre-cleaning step is to remove heavy soiling from the plant.
2. Verification step with TM SMART CIP: Prepare a 1-2 % solution by adding the concentrate to hot water of 60 °C (140°F). The solution has to be prepared in a clean tank. When using iron containing water TM SMART CIP provides a complete iron precipitation in the preparation tank. That's how iron deposits in the pipe system are consequently avoided.
3. In the return flow or at the end of the pipe system a color change to GREEN or YELLOW can be fully automatically captured. This color change visualizes the powerful start of the oxidation effect on organic substances. A constant (purple) color of the verification solution is a reliable indicator for an organic-free system. That's why the VIOLET color indicates the cleanliness of the system.
4. Rinse off the system with hot water or with micro filtered fresh water until pH is neutralized.

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