



## Kao Corporation, S.A

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**APROVADO**

Dep. Qualidade

## DANOX® LF-102

- Non-ionic surfactant
- Low foaming agent

### CHEMICAL IDENTIFICATION

Chemical Name : Ethoxylated and Propoxylated Glycerine

CAS Number : 9082 – 00 – 2

### TECHNICAL SPECIFICATIONS

		Kao Method
APPEARANCE (20°C) :	Transparent yellowish liquid	KCSA-258
ODOUR :	Characteristic	KCSA-267
pH ( 5% , EtOH/ Water 25/75) :	6.0 - 7.0	KCSA-014
CLOUD POINT (pT-1, °C) :	45 - 47	KCSA-020

### TYPICAL PROPERTIES

VISCOSITY (20°C, cPs) :	600 max.
MELTING POINT (°C) :	< -10
DENSITY (20°C, g/mL, "spot") :	1.04 approx.
SOLUBILITY IN WATER :	Dispersible
CHARACTER :	Non-ionic



## DANOX® LF-102

### APPLICATION PROPERTIES

- DANOX® LF-102 is a low foaming non-ionic surfactant, especially recommended for household and institutional low foaming detergents, and mainly for rinse aid formulations.
- DANOX® LF-102 is a non-ionic surfactant and therefore compatible with all type of anionic, amphoteric, cationic or non-ionic surfactant.
- DANOX® LF-102 is stable in acidic or alkaline conditions and doesn't precipitate in hard water.
- Non-ionic surfactants are in general low-foamers above the cloud point. The selected surfactant for rinse aid formulations must have a cloud point below the temperature of the rinse water. The low cloud point in water of DANOX® LF-102 makes it as a very suitable surfactant for this application.

#### Cloud Point

1% in water	= 25° C
0.1% in water	= 40° C

#### Foaming behaviour (Ross Miles Test, 25°C, 40°HF)

% Concentration	Foam (mL) 5 seconds	Foam (mL) 5 minutes
0.1	20	7
0.01	15	3

- Rinse aids typical formula :**

DANOX® LF-102	15 – 30%
ISOPROPANOL	6 %
PHOSPHORIC ACID (85%)	3 % approx.
PROPYLENGLYCOL	6 %
DEIONIZED WATER	Up to 100%
FINAL pH	2.5 - 3.0

DANOX® LF-102 reduces the time of drying and improves spot residues due to the water hardness and soil.

### STORAGE – HANDLING – SHELF LIFE

- DANOX® LF-102 is chemically stable for a long period of time under appropriate storage conditions (temperature of 25°C and original unopened container)
- In the case of long storage time. It is advisable to homogenize the product before its use, especially if it has been submitted to low temperatures. Small changes in the appearance can be easily recovered by applying a moderate agitation at 25 – 30°C. A general advise is to use the complete container every time.
- The shelf life of DANOX® LF-102 can be considered of 2 years minimum under proper storage conditions. After longer storage time some of its characterising parameters ( *odour, appearance, pH, colour,...*) should be checked before using it.

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