



Technical Data Sheet

E/O, P/O Copolymer Products

Trade Name: Copolymer 20-103

Chemical Name: Block Copolymer EO-PO

Grade: Chemical

Low Foaming Surfactants

Block Copolymer EO-PO

I.C.C manufactures a wide range of low foaming surfactants designed to provide the appropriate functionality for all of our customers application needs. We help you to get your foam under control.

Alkyl based EO-PO block copolymers typically have lower surface tensions, CMC and greater dispersing power compared to the corresponding simple alkyl ethoxylates.

The propylene oxide block acts as a branched residue within the copolymers leading to performance advantages like better solubilization and emulsification properties.

Advantages of Block Copolymer EO-PO

- Variable product forms
- Perfect foam control
- Chemical and thermal stability
- Suitable for acidic formulations
- Very good cost-efficiency
- Environmentally compatible
- Excellent wetting properties

APPLICATION

Low-foaming EO-PO copolymers can be used in various solvent or water based formulation types e.g. like Emulsifiable concentrate (EC)

Oil-in-water emulsion (EW)

Suspo-emulsion (SE)

Soluble concentrate (SL)

Suspension concentrate (SC).

EO-PO copolymers act as emulsion stabilizers, wetters, penetration enhancers or dispersing agents. Whenever the wetting properties of your formulations need to be improved without causing increased foam formation alkyl-substituted EO-PO derivatives could be the right choice. Due to their different molecular weights and structures these types of surfactants are not necessarily enhancing the penetration through the leaf surface, which makes them suitable e.g. for the use with contact pesticides.

Alkyl alkoxyates and EO-PO copolymers like copolymer 20-101, 20-102 and 20-103, 40-101, showing fast cold-water solubility provide advantages especially in water based formulations (SL, SC, SE).

More hydrophobic copolymers like copolymer 20-103, are used as emulsifiers and wetters in solvent or oil based systems (EC, EW).

TEST	RESULT	Application / Remarks
Active content [%]	100%	Low foaming surfactants, cleaning agents, automatic dishwashing rinses.
Appearance [20°C]	almost colourless liquid	
Cloud point [°C] [1% in demineralised water]	21± 3	
Cloud point [°C] [5 gr in 25 gr aqueous 25% BDG solution]	40± 3	
HLB [calc.]	10	

STORAGE AND HANDLING

Copolymer 20-103 is dispatched in polyethylene or corrugated steel, galvanized or carbon steel drums. **Copolymer 20-103** is stable for 2 years when stored in the original sealed containers in a cool and dry place.

Precautions for safe handling:

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage:

Keep container tightly closed in a dry and well-ventilated place.

POTENTIAL HEALTH EFFECTS

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

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