

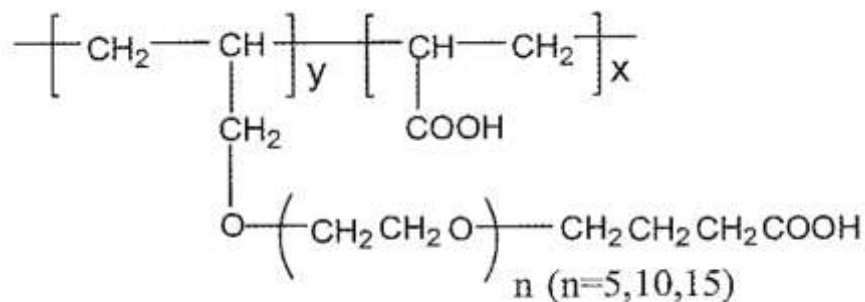
Briteframe AQn Copolymer

reaction product of CAS nr: 86830-15-1

Product information

Synonyms: $(C_{27}H_{52}O_{13})_y(C_3H_4O_2)_x$

Structural Formula:



Briteframe AQn is a readily biodegradable, phosphor- and nitrogen-free biodegradable multivariate polymer; avoiding eutrophication. Briteframe AQn is a scale and corrosion inhibitor by dispersion and chelation. It disperses and chelates barium, calcium, magnesium and other multi-valent cations which are prone to precipitation.

Cation dispersants Briteframe MA-AA and Briteframe PAAS with linear molecular structure $-\text{[CH}_2\text{-CH]}_y\text{-[CHCOOH-CH}_2\text{]}_x\text{-}$ are not chelating, only dispersing cations to prevent scaling. The next generation dispersants Briteframe PASP (containing nitrogen) and Briteframe PESA with linear molecular backbone $-\text{[CH}_2\text{-CH}_2\text{-O]}_n\text{-}$ added dispersing power and biodegradability.

With Briteframe AQn we add side groups with chelating power to the already successful structure of Briteframe PESA, while maintaining polymer dispersion and biodegradability.

Briteframe AQn is a readily degradable branched polymer, combining the linear structures of dispersant polyacrylates and biodegradable like Briteframe PASP and Briteframe PESA with stronger chelating groups.

Cations are trapped and held in place by the inward bound acrylate groups in the polymer backbone and epoxy groups in the branches, acting as chelates. Unlike its predecessors, Briteframe AQn comprises the best of all anti-scaling worlds.

Briteframe AQn is available in 5, 10 or 15 ethylene-oxide groups and in 50% water solution and in granulate or powder form.

The applications are: detergents, cooling and boiler water systems, reverse osmosis, oilfield water, desalination plants, nutrient absorber in agriculture.

Product specifications

Test Item	50% solution	90% powder/granulate
Appearance	clear to yellow liquid	off-white solid particles
pH (1% water solution)	3.0 - 5.0	6.0 - 7.5
Loss on drying, %	-	3.0 max
Viscosity (25°C; N02 RPM 12), cP.s	150 - 550	-
Specific gravity(25°C), g/cm ³	1.20 - 1.25	-
Solid content	48.0 - 52.0	90.0 min
Bulk density(25°C), g/cm ³	-	1.0 max

[Change specifications](#)

Commercial

Packaging 50% solution:

25liter jerrycans, 250kg (200liter) drums, 1250kg (1000liter) IBC, 24mt ISO tank container (bulk)

Packaging 90% powder/granulate:

25kg bags, 1000kg bigbags, ISO tank container (bulk)

Lead time:

8 weeks

Technical

Briteframe AQn is readily biodegradable under OECD301b; over 60% within 28 days (ISO-9439)

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