

Overview

Functionality	Chemistry	BASF product
Wetter / emulsifier / detergent / dispersant	Alcohol ethoxylates	Lutensol® TO types
Wetter / emulsifier / detergent	Alcohol alkoxyates	Lutensol® XL types
Wetter / emulsifier / detergent	Alcohol ethoxylates	Lutensol® XP types
Emulsifier / detergent / dispersant	Alcohol ethoxylates	Lutensol® AT types
Wetter / emulsifier / detergent / dispersant	Alcohol ethoxylates	Lutensol® AO, A...N types
Emulsifier / detergent / hydrotrope	Glucoside	Lutensol® GD 70
Wetter / emulsifier / detergent	Alcohol ethoxylates	Lutensol® ON types
Wetter / emulsifier / detergent	Various chemistries	Lutensit® AN types
Wetter / emulsifier / detergent	Dodecylbenzenesulphonates	Lutensit® A-LBS, A-LBA, A-LBN
Wetter/emulsifier	Diocetylphosphosuccinate, sodium salt	Lutensit® A-B0
Emulsifier / detergent / dispersant	Various ethoxylates	Emulan® types
Dispersant / incrustation inhibitor	Polycarboxylates	Sokalan® PA types, CP 45, CP 5, CP 7, CP 10, CP 12 S
Dispersant / incrustation inhibitor	Modified polycarboxylates	Sokalan® PM 10 I, PM 70, CP 9, HP 25
Metal-ion control, chelating agent	Amino carboxylates	Trilon® types
Silicone-free antifoam	Various chemistry	Degressal® SD 20–23
Silicone-free antifoam	Alcohol alkoxyates	Plurafac® LF types
Silicone-free antifoam	EO/PO Block copolymers	Pluronic® RPE, PE types
Silicone-free antifoam	Polypropylene glycols	Pluriol® P types
Preservative	Biocide active ingredients	Protectol® BN, HT, PE types

Wetters / emulsifiers / dispersants / detergents

	Lutensol®							Lutensit®			Emulan®				
	TO types	XL types	XP types	AT types	AO A...N types	GD 70	ON types	AN types	A-LBS A-LBA A-LBN	A-B0	OC OG OU	AT 9	TO types	AF	P
Hydrolysis in alkali	+	+	+	+	+	++	+	+	++	0	+	+	+	+	+
Alkali stability / solubility	0	+	0	--	0	++	-	+	--	--	0	--	0	--	--
Stability to alkaline earth ions	++	++	++	++	++	++	++	0	0	-	++	++	++	++	++
Stability to peroxide	+	+	+	+	+	0	+	+	++	+	+	+	+	+	+
Wetting / deaerating / high liquor pickup	+	++	+	-	0	-	+	0	+	++	-	0	-	-	0
Low-foaming	0	-	0	+	0	-	-	-	-	-	+	+	-	+	+
Foam disintegration	0	0	+	0	0	-	-	0	-	0	0	+	-	+	+
Emulsification of fats	++	+	0	+	-	0	-	+	+	0	+	+	++	+	-
Emulsification of mineral oils	++	+	0	++	+	+	-	+	+	+	++	++	+	++	++
Emulsification of silicone oils	++	+	0	++	+	0	0	+	+	0	++	++	++	++	+
Dispersion of organic particles	++	0	0	++	+	0	0	+	++	0	++	0	++	-	-
Ecology	++	++	++	++	0	++	++	varies	++	++	++	++	++	++	0
Minimal gel phase	+	+	++	-	0	++	++	++	++	++	-	0	+	-	0
Compatibility with enzymes	+	+	+	+	+	+	+	-	-	-	+	+	+	+	+

++ = excellent + = good 0 = average -- = poor --- = very poor

Scale dispersants / incrustation inhibitors

	Sokalan®					
	CP 45, 5, 7	CP 10	PM 10 I, PM 70, CP 9	CP 12 S	PA types	HP 25
Dispersing capacity	++	+	+	0	+	0
Incrustation inhibitor	++	++	++	++	+	++
Alkali stability	+	+	+	+	+	++
Hydrolysis in alkali	+	+	+	+	+	0
Stability to peroxide	+	+	+	+	+	+

Chelating agents

Metal-ion control	Trilon®					
	A types	B types	C types	D	M types	P
Reduction of water hardness (Ca ²⁺ , Mg ²⁺)	++	+	+	+	++	+
Stabilisation of H ₂ O ₂ (binding capacity Fe ³⁺ , Cu ²⁺ , Mn ²⁺)	0	++	++	+	0	++
Removal of Fe ³⁺ , Mn ²⁺	+	++	++	++	+	++
Chemical stability	+	+	+	+	+	+
Ecology	++	not readily biodegradable	not readily biodegradable	not readily biodegradable	++	bioeliminable

Trilon® D Liquid: Exhibits very good stabilisation to ferric ions in the alkaline range.

Alkaline stability: The amino carboxylates are used in different pretreatment baths, e.g. boil-off. They are very stable in highly alkaline solutions (e.g. 40g NaOH/l).

Acidic stability: Trilon® A Liquid and Powder are soluble in acidic treatment baths at pH 3. At lower pH the Trilon® A types tend to precipitate. The precipitate can be dissolved by adjusting to a higher pH value. Trilon® M types and Trilon® C types show very good solubility and stability in textile processes at pH 2. They do not precipitate in diluted aqueous solutions at low pH.

Silicone-free antifoams

Silicone-free foam suppressors are found in the Pluronic®, Degressal®, Pluriol® P and Plurafac® ranges. Our products do not exhibit decomposition, especially under caustic alkali conditions. This is a major disadvantage of silicone defoamers, causing contamination of both machinery and fabric with silicone oils. Additionally, they are easier to formulate, and furthermore besides their foam suppressing action, Pluronic® and especially Plurafac® defoamers provide the formulation with additional scouring power.

Especially recommended are:

Pluronic® PE 6100, PE 8100, RPE 2520, RPE 3110

Degressal® SD 20, SD 40

Pluriol® P 2000, P 4000

Plurafac® LF 132, 224, 231, 303, 305, 403, 500, 1300, 1430.

Biocide active ingredients

	Protectol®		
	BN types	HT types	PE types
Antibacterial control	++	++	+
Antifungal control	0	+	0
Suitability in alkali	0	++	+
Suitability under acid conditions	++	0	+
Suitability in neutral conditions	+	+	+
Compatibility with other additives	+	+	++
Health and safety profile	+	0	++
Biocidal regulatory approvals Europe	++	++	++
Biocidal regulatory approvals NAFTA	++	+	--

Due to a history of safe use in consumer products, BASF's biocides such as Protectol® BN types and Protectol® PE types have an excellent health and safety profile. Additionally it is important to choose biocidal active ingredients with the appropriate regulatory approvals. For in-can preservation of industrial products BASF has approvals with the US EPA for Protectol® BN types (Myacide® AS) and Protectol® HT types (Myacide® HT). Both of these products as well as Protectol® PE types have been notified by BASF for in-can preservation under the European Biocidal Products Directive. For full details of regulatory approvals you should enquire via your local BASF sales office.

Requirement for European Directive 98/8/EC: Use biocides safely. Always read the label and product information before use.

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