

Sales Offices

Cardiff: +44 (0)2920 855 300

Dublin: +353 1 401 9800

Glasgow: +44 (0)1236 732 711

Widnes: +44 (0)151 257 9103

For technical assistance with
your laundry product formulations
please contact:

Paul Sanders

Tel: +44 (0)7831 561051

E-mail: paul.sanders@univareurope.com



www.univareurope.com



Chemicals

for Laundry Products

Laundry Liquids
Laundry Powders & Tablets
Fabric Softeners



Laundry Product **Chemicals** from Univar

This aid contains a sample of Univar's portfolio offering to manufacturers of Laundry Liquids, Laundry Powders, Laundry Tablets & Fabric softeners.

For further information on our range please contact your local account manager. For technical assistance with your laundry product formulations please contact:

Paul Sanders

Tel: 07831 561051

E-mail: paul.sanders@univareurope.com

Without liability. The information contained in this document is correct at the time of going to press. It does not necessarily form part of the product specification. A detailed product specification is available from your local Univar branch.

It's a good time to go **Phosphate free**

Price

Phosphate prices have increased dramatically and are predicted to remain high.

There is now a commercial advantage to Phosphate Free formulations.

Green

Phosphates cause Eutrophication (excessive growth of plants and algae) EU restrictions due in 2008.

Phosphates are needed in the environment but too much is a problem.

Heavy Duty Liquid Detergents (**HDLD**)

Three options to supply your HDLD components.

- Option 1** Individual components
- Option 2** Fully formulated, perfumed, enzymatic, phosphate built [Nansa 1493E](#)
- Option 3** Phosphate Free Detergent Base + Optional Components

Advantages of Option 3:

Avoids most of the difficult, multi stage blending & neutralisation processes.

Omitting the neutralisation stage removes the need for an IPPC licence and Reach registration.

Nansa 1493E

Nonionic Surfactants, Phosphonates	<5%
Anionic Surfactants	5-15%
Phosphates	5-30%

Option 3 - Phosphate Free Detergent Base

Caflon HDL conc.

Dilute to 30-35%
w/w with water

**Add your choice the
following components**

Enzymes	Opacifier
Dye	Preservative
Softener	Perfume
Colour Protector	Bleaching Agent
Thickener	

Caflon HDL Conc.

pH (5% Soln) 8.5-9.5
Solids 65-69%

For significant
volumes Univar can
do your blend for you

Contains

Anionic Surfactants
Non-ionic Surfactants
Soap
Anti-redeposition Agent
Chelating Agent
Antifoam
Optical Brightener

Laundry Product Chemicals from Univar

Product	Page
Soap, Anionic Surfactants, Hydrotrope	7
Non-Ionic Surfactants	8
Chelating Agents, Anti-Redeposition Agents, Alkaline Builders	9
Additional HDLD Components	10
Enzymes	11
New Enzymes	12, 13
Laundry Powder & Tablet Components	14
Fabric Softener Components	15

Soap, Anionic Surfactants and Hydrotrope

		Active	Form	Typical % Inclusion
Prifac 7901	Coconut Fatty Acid (Soap, when neutralised)	100%	Liq.	0 - 20%
Caflon SNA	Dodecyl Benzene Sulphonic Acid (H2P)	95%	Liq.	5 - 20%
Caflon NAS30A	Sodium Dodecyl Benzene Sulphonate	30%	Liq.	5 - 20%
Caflon 2L28U	Sodium Lauryl Ether Sulphate	28%	Liq.	5 - 20%
Caflon SXS30	Sodium Xylene Sulphonate (Hydrotrope)	30%	Liq.	0- 5%

Standard Stock Item

Neutralising the Coconut & Sulphonic Acid's requires an IPPC licence.

Neutralising Agents

		Active	Form
Caustic Soda	Sodium Hydroxide	32%	Liq.
Triethanolamine Std	TELA	100%	Liq.
Caustic Potash	Potassium Hydroxide	36%	Liq.

Standard Stock Item

The amine salt will be more water soluble than the sodium salt.
A combination of neutralising agents may be used.

Non-ionic Surfactants

		Active	Form	Cloud Point	Typical % Inclusion
Empilan KCL7	C12-C15 Alcohol 7EO	100%	Liq.	76 b	5 - 20%
Empilan KBE7/90	C12-C14 Natural Alcohol 7EO	90%	Liq.	56 a	5 - 20%
Caflon TF-0700	C13-C15 Alcohol 7EO	100%	Liq.	77 b	5 - 20%
Caflon TD-0900	C13 Alcohol 9EO	100%	Liq.	58 a	5 - 20%
Levenol C-301	Glycereth-7 Cocoate	100%	Liq.	none	5 - 20%

Standard Stock Item

Levenol C-301 – Environmentally Friendly, Vegetable Origin, No Labelling, Non-Irritant
method a - 0.5% aq soln. method b - 10% in 25% BDG soln.

Cloud Point Adjustment

		Active	Form
MPG	Mono Propylene Glycol	100	Liq.
DPG	Di Propylene Glycol	100	Liq.
Ethanol	Ethyl Alcohol	100	Liq.

Standard Stock Item

Ethanol will also act to 'lift' the fragrance and reduce the pour point

Chelating Agents, Anti-redeposition Agents & Alkaline Builders

		Active	Form	pH	Typical Inclusion	Properties
Sodium Tripolyphos S20	Sodium Tripolyphosphate	92%	Gran.	9.6	0 - 10%	Water softening, anti-redeposition
Dequest 2066	(Phosphonate) DTPMPA 7Na	32%	Liq	7.0	0 - 2%	Stain removal, chelating, bleach stabilisation, anti-redeposition, corrosion inhibition
Versenex 80E	(Chelate) DTPA	32%	Liq	11.5	0 - 2%	Chelating, bleach stabilisation, soap curd prevention
Trisodium Citrate N1560	Trisodium Citrate	100%	Solid	8.3	0 - 8%	Chelating
Crystal 0084	Sodium Silicate	40%	Solid	11.8	0 - 5%	anti-redeposition, deflocculation, emulsification, buffering, corrosion inhibition
Caflon PA445	Polyacrylate	40%	Liq	7.0	0 - 5%	Chelating, anti-redeposition, whiteness maintenance

■ Standard Stock Item

Additional HDLD Components

		Active	Form	Properties
DC Antifoam DB310	Silicone Antifoam	30%	Liq.	Designed to control foam in aqueous systems over wide pH ranges.
DC Antifoam RD	Silicone Antifoam	10%	Liq.	Designed to control foam in aqueous systems over wide pH ranges.
Sodium Perborate Tetra Hyd	Bleaching Agent	Min 10% free O ₂ m/m	Pwd.	Oxygen-based bleaching agents while remaining colour fast.
Sodium Percarbonate	Bleaching Agent	Min 13.5% free O ₂ m/m	Pwd.	Oxygen-based bleaching agents while remaining colour fast.
Caflon FCP	Colour Protector	80%	Liq.	Protects against colours fading
Caflon OPB*	Optical Brightener	100%	Pwd.	Improves whiteness, prevents yellowing.
Caflon OPF	Opacifier	40%	Liq.	Produces a milky white appearance.
Caflon PQ7	Polyquat 7, Softener	9%	Liq.	Cationic softener
Caflon PAT-S20	Polyacrylic Thickener	40%	Liq.	Thickener
Canguard Ultra BIT 20	Preservative	20%	Liq.	Low tox, broad spectrum, effective pH 2-12

■ Standard Stock Item

Univar supply a full range of dyes & colours but we do not currently supply fragrances.

Novozymes - Enzymes

		Active	Form	Properties
Alcalase 3.0T	Protease	3 KNPU-E	Gran	Very good wash performance at pH 7-9 Gentler on wool & silk than other proteases. Suitable for soaks, liquids & powders.
Alcalase 2.5L	Protease	2.5 KNPU-E	Liq	
Esperase 4.0T	Protease	4 KNPU-E	Gran	Robust, retains wash effect at high alkalinity & high temperature. Ideal for professional laundries.
Esperase 8.0L DX	Protease	8 KNPU-E	Liq	
Everlase 16T	Protease	16 KNPU-E	Gran	Bleach robust. Excellent storage stability in powders & tablets. Very good wash performance in liquids.
Everlase 16L EX	Protease	16 KNPU-E	Liq	
Savinase 16T W	Protease	16 KNPU-S	Gran	Cost-effective & robust. Effective under more alkaline conditions and medium temperature.
Savinase 16L EX	Protease	16 KNPU-S	Liq	
Lipex 100T	Lipase	100 KLU	Gran	Good first wash removal of fat & oil stains. Effective in alkaline conditions over a broad temperature range. Surface & deep cleaning.
Lipex 100L	Lipase	100 KLU	Liq	
Stainzyme 12L	Amylase	12 SNU	Gran	High performance, low temp, short time, stubborn food stain removal, esp. starch's. (Stainzyme Plus – Bleach robust).
Stainzyme Plus 12T	Amylase	12 SNUX	Liq	
Termamyl Ultra 300L	Amylase	300 KNU-T	Gran	Robust. Removes starch stains & provides whiteness. Effective at high temperature & alkalinity.
Termamyl 120T	Amylase	120 KNU-T	Liq	

Standard Stock Item

In addition to the single enzyme grades, Novozymes also do a number of T-Blends

New Enzymes from Novozymes

Mannan is used worldwide as a thickener and stabilizer in products such as soups, sauces, desserts & personal care products. Over 27,000 new products containing mannan were introduced, globally, between 2001 and 2006.

		Active	Form	Properties
Mannaway 4.0L	Mannanase	4.0 MIUM	Liq.	Strong mannan stain removal. In-depth cleanness and anti redeposition. Prevents graying.
Mannaway 4.0T	Mannanase	4.0 MIUM	Gran.	Strong mannan stain removal. In-depth cleanness and anti redeposition. Prevents graying.
Carezyme 4500T	Cellulase	4.5 KECU	Gran.	Effectively removes fuzz & pills from cotton. Restores & maintains original appearance, colour & softness of the fabric.
Carezyme 4500L	Cellulase	4.5 KECU	Liq.	Effectively removes fuzz & pills from cotton. Restores & maintains original appearance, colour & softness of the fabric.

Standard Stock Item

New Enzymes from Novozymes (cont)

Beta-glucans, found in oats, are contained in a large variety of food products. They stick heavily to cotton and even small amounts can lead to graying and hard-to remove stains. They also cause redeposition of clay soilings.

		Active	Form	Properties
Celluclean 4500 T	Cellulase	4.5 KECU	Gran.	Unique beta-glucan stain removal properties. Provides strong whiteness & anti graying effects. Preserves brightness in coloured & contrasts in striped clothes.

Standard Stock Item

Components for Laundry Powders & Tablets

		Active	Form	Typical Inclusion	Properties
Nansa HS80S	Sodium DBBS	80%	Pwd.	5 - 20%	Anionic Surfactant
Empilan KM25	C16- C18 Natural Alcohol 25EO	100%	Pwd.	2 - 8%	Non-ionic Surfactant
Sodium Tripolyphos NW Fine	Sodium Tripolyphosphate	92%	Pwd.		Water softening, anti-redeposition
Sodium Carbonate Granular	Sodium Carbonate	100%	Gran.	5 - 40%	Filler
Crystal 0084	Sodium Silicate	40%	Solid	2 - 10%	Anti-redeposition, deflocculation, emulsification, buffering, corrosion inhibition
Sodium Sulphate Anhydrous	Sodium Sulphate	100%	Gran.	0 - 20%	Filler
Sodium Perborate Tetra Hydrate	Sodium Perborate	Min 10% free O ₂ m/m	Pwd.	0 - 30%	Oxygen-based bleaching agents while remaining colour fast. Activators.
Sodium Percarbonate	Sodium Perborate	Min 13.5% free O ₂ m/m	Pwd.	0 - 30%	Oxygen-based bleaching agents while remaining colour fast. Activators.
DC Antifoam 2-4248s	Silicone Antifoam	12%	Pwd.	<1%	Antifoam
Dequest 4266D	DTPMPA 7Na	56	Pwd.	<1%	Stain removal, chelating, bleach stabilisation, anti-redeposition

Standard Stock Item

see also granulated enzymes on pages 11, 12 & 13

Fabric Softeners

		Form	Active	Pour Point	Cold Mix
Caflon FSC2	Fabric Softener Concentrate	Liq	40-45%	<0	Yes
Caflon EQ90	Dialkyl Ammonium Methosulphate	Paste	90%	Paste	No
Caflon EQ90/LP	Dialkyl Ammonium Methosulphate	Liq	90%	6	No

Standard Stock Item

Caflon FSC2 passes the detergents directive, and is suitable for cold mix. Just dilute & add dye & perfume as required.

Fabric Softeners – Additional components

		Form	Active	Properties
Caflon PAT-FS	Polyacrylic Thickener	Liq.	50%	Cationic thickener.
Vo-Bicide B-111	Preservative	Pwd.	90%	Broad spectrum bacteriacide (Bronopol), effective pH 3-8

Standard Stock Item

Registered trademarks

- Univar** - Caflon
- Huntsman** - Empilan, Nansa
- Thermphos** - Dequest
- Dow** - Versenex, Canguard
- Dow Corning** - DC Antifoam
- Croda** - Prifac
- Kao** - Levenol
- Novozymes** - Alcalase, Esperase, Everlase, Savinase, Lipex, Stainzyme, Termamyl, Mannaway, Celluclean, Carezyme