Industrial and Institutional Cleaning

Applications and Products

Hard Surface Cleaners

Laundry Detergents

Dishwashing Detergents

Vehicle Cleaners

Dairy / Food Processing Cleaners

Hard Surface Cleaners

Hostapur SAS
- High stability in a broad ph range (acid and alkaline) and oxidation agents
- Good compatibility with all types of electrolytes
- Excellent wetting power
- Strong degreasing and cleaning effects
- Good dispersion and solubilization of fat, soil and pigments
- High solubility and a good cold stability

Nonionics:

Fatty/Oxo alcohol ethoxylates
(Genapol UD, Genapol OX etc.)
- Degreasing power
- Excellent dispersing, wetting detergent
- Cleaning, soil carrying and homogenizing ability

Low foamers (EO/PO-Adducts)
Genapol EP 0244, -EP 2552 , BE 2410, -BE 2810 etc.
- Foam control
- Wettability - rinse aid
- Cleaning efficiency

Amine oxides
- Stability to acids, alkalies, electrolytes and desinfectants
- Foam booster and stabilizer
- Fat and oil solubilizer and dispersing agent

Genopur ASA
Highly efficient hydrotrope agent for highly alkaline mixtures - allows incorporation of considerable quantities of nonionic surfactants into formulations containing potassium hydroxide, phosphates, carbonates, silicates and anionic surfactants

Praepagen HY
Detergency increase by synergistic effect with anionic surfactants (the amount of surfactants and solvents in formulations may be reduced): Good compatibility with Hostapur SAS at low HY concentrations (1-2%)

Formulation examples:

Sanitary Cleaner

	%
®Genapol LA 070	3,0
®Hostapur SAS 60	5,0
Lactic acid	5,0
Hordaphos CC MS (Div. P&A)	10,0
Orthophosphoric acid, 85 %	10,0
Water	67,0

Universal Cleaner

	%
Citric acid	2,0
®Praepagen HY	2,0
®Genapol X 080	3,0
®Hostapur SAS 60	5,0
Isopropanol	10,0
Water	78,0

Garage / Industry Cleaner

	%
®Genopur ASA	3,0
Potassium hydroxide solution (45%)	6,0
®Genapol EP 0244	3,0
®Hostapur SAS 60	5,0
Tetra potassium pyrophosphate solution (60%)	5,0
Butyldiglycol	5,0
Ethanol	5,0
Water	71,0

Laundry Detergents

There are different types of laundry formulations in the market. You can find powder and liquid formulations and different bleaching systems. For bleaching and desinfection either a chlorine or an oxygen based chemistry may be used.

SKS-6
- Alkalinity regulator and buffer
- Control of water hardness (fast elimination of Ca^{2+} and Mg^{2+} by ion exchange effect - outstanding adsorptivity towards heavy metals)
- Improved detergency
- Reduced residues on fabrics
- Excellent uptake of surfactants
- Fully compatible with other ingredients
- Least impact in effluents
- Corrosion inhibition

Peractive TAED-types
- Best bleach activator for persalts (50-70°C)
- Desinfective properties
- Unpleasant odours are removed
- Colours and fibres are preserved

Peractive LAC
(Acetylcaprolactam) liquid bleach activator. Separate dosage to activate hydrogen peroxide in washing liquor is recommended.

Hostapur SAS
- Better solubility in water than LAS, saving on hydrotropes
- Good detergent action (dispersion and solubilization of soil and fat particles)
- Good compatibility with electrolytes
- Excellent stability against oxidizing agents and agressive chemicals

Alcohol ethoxylates
- Oil- or water soluble depending on EO degree
- Excellent dispersing, wetting detergent
- Cleaining, soilcarrying and homogenizing ability

Praepagen HY
- Washing booster
- Pigment dispersing agent

Genopur ASA
Highly efficient hydrotrope agent for highly alkaline mixtures - allows incorporation of considerable quantities of nonionic surfactants into formulations containing potassium hydroxide, phosphates, carbonates, silicates and anionic surfactants

Antimussol
Defoaming

Formulation examples:

Powder Detergent

	%
®Antimussol 4846 N	0,5
®Genapol OA 080	4,0
®Peractive AN	5,0
Linear alkylbenzene sulfonate	8,0
Sodium carbonate	10,0
®SKS-6 (powder or granular)	10,0
Sodium sulfate	17,5
Sodium tripolyphosphate	20,0
Perborate tetrahydrate	25,0

Liquid Detergent

	%
®Antimussol 4846 N	0,5
NTA-solution, e.g. ®Trilon A (40%)	2,0
®Praepagen HY	2,0
®Genopur ASA	4,5
Potassium hydroxide (85%)	5,0
Coconut fatty acid	5,0
®Genapol OA 080	5,0
®Hostapur SAS 60	5,0
Sodium metasilicate x 5 H_2O	10,0
Water	20,0
Potassium tripolyphosphate solution (50%)	40,0

Dishwashing Detergents

Automatic Dishwashing Detergents (ADD) for I&I are totally different from these used in household (shorter washing cycles, higher temperatures). But the rinse aids are almost the same. The hand dishwashing liquids resemble household formulations - they are often more concentrated.

Hostapur SAS
- Good solubility, wetting power, foaming and detergency
- Viscosity reducing and solubilizing effect on other surfactants
- Excellent stability against oxidizing agents and agressive chemicals
- Good dermatological properties

Genapol LRO
- Low degreasing effect
- Good dermatological properties

Fatty/Oxo alcohol ethoxylates
- Excellent dispersing, wetting detergent
- Cleaning, soil carrying and homogenizing ability

Betaines
- Viscosity raising properties
- Good skin compatibility

Low foamers
- Foam control
- Wettability - rinse aid (water films dry without spots)
- Cleaning efficiency

Formulation examples:

Dishwashing Concentrate

	%
®Hostapur SAS 60	40,0
®Genapol LRO liquid	30,0
®Genapol UD 080	3,0
®Genagen CAB 818	10,0
Water	17,0

Liquid ADD Cleaner

	%
Sodium hypochlorite	5,0
Liquid Potassium Silicate	10,0
Potassium tripolyphosphate	15,0
Potassium hydroxide	15,0
Water	55,0

Powder ADD Cleaner

	%
Sodium dichloroisocyanurate	2,0
®Genapol EP 0244	3,0
Sodium carbonate	5,0
Sodium hydroxide	10,0
Sodium metascilicate	40,0
Sodium tripolyphosphate	40,0

Rinse Aid

	%
Sodium cumene sulfonate (40%)	5,0
Citric acid monohydrate	10,0
®Genapol BE 2410	10,0
Water	75,0

Vehicle Cleaners

Cleaners for the exterior of cars, trucks, busses and railway vehicles differ from each other in many application fields. They may be used for manual or automatic cleaning and include presoaks, wash soaps, wash with wax, rim cleaners, engine cleaners, windshield washers, dry-shine/hydrophobing agents, polishes and many more. - Here you will find some formulations and information on the mode of action of the products.

Rim Cleaners

Orthophosphoric acid, 85 %	5,00 %	acid
®Hostapur SAS 60	5,00 %	degreasing
®Genapol UD 088	2,00 %	oily soil removal
®Dodicor 2565	0,25 %	corrosion inhibitor for zinc to prevent the underseal
Kelzan S	0,15 %	thickener
®Hordaphos CC MS (Div. P&A)	10,00 %	corrosion inhibitor and surfactant
Water	77,60 %	

Motor Cleaners

®Genapol O 050	5,0 %	oily soil removal
®Hostacor DT	1,0 %	corrosion inhibitor
Petroleum	94,0 %	solvent

®Hostapur SAS 60	5,0 %	degreasing
®Genapol X 080	8,0 %	oily soil removal
®Hordaphos CC MS (Div. P&A)	10,0 %	corrosion inhibitor and surfactant
Butyl diglycol	3,0 %	solvent
Water	74,0 %	

High Pressure Cleaners

®Genapol UD-110	2,0 %	oily soil removal
®Genopur ASA	3,0 %	hydrotrope (to dissolve nonionics into alkaline formualtion)
®Hostapur SAS 60	5,0 %	degreasing
Tetra potassium pyrophosphate	5,0 %	dispersing agent
NTA solution, e.g. Trilon A (40%)	5,0 %	complexing agent for hard water
Potassium hydroxide (85%)	5,0 %	base
®Liquid Potassium Silicate KA/1	20,0 %	builder
Water	60,0 %	

Potassium tripolyphosphate	10,0 %	builder
NTA solution, e.g. Trilon A (40%)	10,0 %	complexing agent for hard water
Potassium hydroxide (85%)	5,0 %	base
®Genopur ASA	3,0 %	hydrotrope
®Genapol UD 050	2,5 %	oily soil removal
®Genapol UD 080	2,5 %	oily soil removal
Water	67,0 %	

Car Shampoos

®Genopur ASA	3,0 %	hydrotrope
Potassium hydroxide solution (45%)	3,8 %	base
®Genapol X 080	10,0 %	oily soil removal
Tetra potassium pyrophosphate solution (60%)	11,7 %	builder
Water	71,5 %	
®Hostapur SAS 60	24,0 %	degreasing
®Genapol LRO liquid	22,0 %	foaming and detergence
Coco fatty acid diethanolamide	3,0 %	emulsifier for degreasers and soluble oils, viscosity builder
Sodium chloride	2,0 %	thickening
Water	49,0 %	

Dry Rinse Aid

®Praepagen 3445	21,0 %	Praepagen 3445
Butyl glycol	10,0 %	is not readily biodegredable,
Mineral Oil, low viscosity	6,0 %	hydrophobic action on surfaces:
®Genapol O 020	5,0 %	water peals off in ball-like droplets
Acetic acid, 60 %	1,0 %	
Water	57,0 %	
®Praepagen 4317	10,0 %	Praepagen 4317
Dowanol PnB	6,0 %	is readily biodegredable,
Butyl diglycol	5,0 %	hydrophobic action on surfaces:
Butyl glycol	4,0 %	water peals off in ball-like droplets
Lipinol O	4,0 %	
®Genapol O 020	1,0 %	
Acetic acid, 60 %	1,0 %	
Water	69,0 %	

Tar Remover

®Hostapur SAS 60	15,0 %
®Genapol UD 030	2,0 %
Oleic acid	3,0 %
Butanol	7,0 %
Water	13,0 %
White spirit	60,0 %

Insect Remover

®Genapol OX 080	3,0 %
Ammonia solution (25%)	1,0 %
Ethylene glycol	30,0 %
Isopropyl alcohol	20,0 %
Water	46,0 %

Dairy/Food Processing Cleaners

Bottle Cleaners- Additives

Glasses

®Genapol DF 5050	10-30 %	Genapol DF 5050
®Antimussol 3470	5-10 %	foam inhibiting and wetting agent
Orthophosphoric acid, 85 %	40-50 %	for acid and alkaline liquors
Sequestrant	3-10 %	
Isopropyl alcohol	3-5 %	Antimussol 3470
Water	ad 100 %	acid and alkaline stable defoamer

®Genapol DF 7525	10-30 %	Genapol DF 7525
Orthophosphoric acid, 85 %	40-50 %	foam inhibiting and wetting agent
Sequestrant	3-10 %	for acid and alkaline liquors
Isopropyl alcohol	3-5 %	includes defoamer
Water	ad 100 %	

PET

®Genapol DF 9010	25-35 %	Genapol DF 9010
®Antimussol 3470	5-10 %	resistant to water hardness salts and
Sequestrant	3-5 %	largely resistant to aqueous acids and alkalis
Orthophosphoric acid, 85 %	25-40 %	prevents "stress-corrosion cracking" of the PET bottles
Water	ad 100 %	

Alkaline tank cleaner

	%
®Genapol UD 050	2,5
®Genapol UD 080	2,5
®Genopur ASA	3,0
Potassium hydroxide solution (45%)	9,4
Sodium tripolyphosphate	10,0
Sodium metasilicate x 5 H_2O	10,0
Water	62,6

Cleaner for meat plants

	%
®Genapol UD 080	2,0
®Genopur ASA	3,5
®Hostapur SAS 60	5,0
Potassium hydroxide solution (45%)	6,7
Tetra potassium pyrophosphate solution (60%)	8,3
Potassium silicate	10,0
Water	64,5

Acidic tank cleaner

	%
®Genapol DF 5050	3,0
Hordaphos MDGB (Div. P&A)	5,0
Water	40,0
Orthophosphoric acid, 85 %	50,0