

PRODUCTNAME	APPLICATION AREA	DESCRIPTION
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## Synergistic surfactant combinations

<b>TENSAN M-004</b>	Reduced-foam active ingredient concentrate for caustic alkaline cleaning agents for commercial purposes (especially for CIP cleaners).	As the main surfactant in very alkaline cleaning concentrates, e.g. suitable for grease remover or drain pipe cleaner. Degreasing, surface-active and foam-reducing as well as preventing incrustations. Good solubility in caustic alkalis.
<b>TENSAN M-029</b>	Concentrated degreaser for neutral, acidic and alkaline degreasing agents	High surface activity and affinity for hydrophobic and hydrophilic surfaces. POLYGON PCG 2029 is clearly soluble in water and alcohols and shows good solubility in the presence of both alkalis and acids. It not only degreases metal surfaces, but also cleans plastic surfaces very effectively. POLYGON PCG 2029 also reduces electrostatic charging on plastic boxes, floors, truck tarpaulins, awnings and garden furniture.
<b>TENSAN M-271</b>	Label-free, foam-active surfactant combination with complexing agent and dispersant for household, commercial and industrial cleaners. Particularly suitable for hand dishwashing detergents, detergents, bathroom and toilet cleaners or degreasing products.	Good solubility, even in the presence of caustic alkalis and acids. Very high surface activity and creates a stable foam. Prevents water hardness deposits and incrustations. Recommended for low temperature applications and concentrates.
<b>TENSAN M-276</b>	Label-free, non-ionic / anionic, foam-active surfactant mixture with complexing agent and dispersant.	Excellent solubility in water. Highly surface active. Foaming, dispersing, inhibiting incrustations. Used in slightly acidic to alkaline cleaners, especially for labeling free household products.
<b>TENSAN M-420</b> <b>NEW</b>	Special mixture of non-ionic / anionic surfactants. It has good wetting properties and offers a foam-enhancing effect, which leads to a very stable foam.	Suitable for car care, household products and industrial cleaners. It is stable to hard water and in a wide pH range.
<b>TENSAN M-439</b>	Foam-active surfactant formulation with chelating agent for highly alkaline cleaners.	Excellent solubility in water. Highly surface active. Foaming, dispersing, inhibiting incrustations. Used as concentrate in aqueous, foam-active, high alkaline cleaners for professional and industrial use (e.g. high alkaline foam cleaners for smokehouses, kitchens, deep fryers, Grill cleaner).



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<b>TENSAN M-444</b>	Foam-active nonionic / anionic surfactant combination with extremely good degreasing properties.	Excellent solubility in water, high surface-activity. Dispersing and inhibiting incrustations. Produces a very stable foam. Excellent wetting properties and detergency power. Used in aqueous, foam-active high alkaline cleaners for institutional and industrial purposes. Particularly also for high alkaline foam cleaners in the food industry.
<b>TENSAN M-664</b>	Foam active, well degreasing concentrate for cleaning agents. Easily biodegradable combination of surfactants for household, commercial and industrial cleaners.	Easily soluble in alkaline to acidic conditions. Use in industrial or household cleaners such as degreasing agents for metal, floor and machine cleaners, especially for cleaning plastic surfaces, floor coverings, tarpaulins, blinds, garden furniture. Removes rust, oil and grease, brake dust and pigments.
<b>TENSAN M-821</b>	Anionic / non-ionic surfactant combination with extremely good degreasing effect. Above the cloud point (35 ° C) it is slightly foaming. It is easily biodegradable.	Active ingredient concentrate for the production of aqueous, low-foaming alkaline cleaning agents for trade and industry. Among other things, also used in the case of polymer dewaxing for metals and new vehicles, CIP cleaners for tank and heater systems, separators, machine-based spray cleaners and commercial liquid automatic dishwashing detergents
<b>TENSAN M-935</b>	Reduced-foam surfactant combination with high surface activity and extremely good degreasing properties in neutral and alkaline cleaning agents.	Active ingredient concentrate for low-foaming cleaners and degreasing agents. Suitable for highly alkaline systems. Corrosion inhibitor.
<b>TENSAN M-944</b>	Foam-active nonionic / anionic surfactant combination with extremely good degreasing properties.	Concentrate for aqueous, neutral and acidic cleaners, e.g. for metal degreasing, ultrasonic bath cleaners, pressure cleaners to remove oil, fat, and rust, mass finishing media, polishing agents, as well as in car, engine and shopfloor cleaners. Cleans plastic surfaces and reduces electrostatic charges. Excels by its good solubility and stability in alkaline media.
<b>TENSAN M-945</b>	Low-foaming surfactant concentrate for use in low-foaming degreasing agents at any pH; particularly suitable for highly alkaline conditions.	Low-foam blend of surfactants with high surface activity and high affinity to hydrophobic and hydrophilic surfaces. Used as main surfactant in professional metal degreasers, ultrasonic bath cleaners, pressure cleaners to remove oil and fat, rust, mass finishing media, polishing agents, break dust, pigments as well as in car, engine and shopfloor cleaners. Very efficient in cleaning plastic surfaces; reduces electrostatic charges of plastic crates, floorings, tarpaulins, blinds and garden furniture.

# Special Surfactants



PRODUCTNAME	APPLICATION AREA	DESCRIPTION
<b>TENSAN M-946</b>	Foam-active surfactant concentrate for use in neutral, acidic and basic degreasing agents.	Soluble at any pH. Used as main surfactant in professional metal degreasers, ultrasonic bath cleaners, pressure cleaners to remove oil and fat, rust, mass finishing media, polishing agents, break dust, pigments as well as in car, engine and shopfloor cleaners. Very efficient in cleaning plastic surfaces; reduces electrostatic charges of plastic crates, floorings, tarpaulins, blinds and garden furniture.

## Amphoteric surfactants

<b>TENSAN CAB</b>	Wetting agent and hydrotrope for high- foaming cleaners	Stable in acids as well as alkali. Depending on the pH compatible with any kind of surfactant. Increases viscosity in combination with anionic surfactants.
<b>TENSAN KS</b>	Low-foaming polyfunctional amphoteric surfactant. Universal solubilizer, supports corrosion protection.	Polyfunctional salt-free surfactant. Branched molecule. Excellent soil removing properties, good demulsifier. Very high stability vs. alkali and electrolytes. Good compatibility with other surfactants. Replaces cumene sulfonate. E.g. for pressure washers, automatic cleaning machines.
<b>TENSAN KSL</b>	Foam Reduced, polyfunctional, amphoteric surfactant with good usage properties.	Polyfunctional surfactant, salt-free. Increases detergency power. Corrosion inhibitor, particularly of iron in very acidic and in alkaline conditions. Good demulsifier in effluents. Good biodegradability.
<b>TENSAN KSM</b>	Low foaming solubilizer, good hydrotrope, also suitable for very high and especially for very low pH values.	Polyfunctional surfactant. Very strong solubiliser. Very high stability in alkali and electrolytes. Pronounced soil removing properties. Good compatibility with other surfactants. Good demulsifier in effluents.
<b>TENSAN VS</b>	Solubiliser, particularly for nonionic surfactants, even at very high or very low pH. E.g. in foam cleaners, conveyor belt cleaners and surface cleaners. Also solubilizes perfume oils.	Polyfunctional surfactant, salt-free. Corrosion inhibitor, pronounced soil removing properties. Good demulsifier in effluents.
<b>TENSAN VS 100</b>	Solubiliser, particularly for nonionic surfactants, even at very high or very low pH. E.g. in foam cleaners, conveyor belt cleaners and surface cleaners.	Powder. Good stability. Hydrotrope in a wide pH range and in soft and hard water. Salt-free. High suitability in metal applications to avoid pitting and corrosion.

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## Nonionic surfactants

<b>TENSAN M-391</b>	Foam-reduced, non-ionic concentrate based on sugar surfactants and EO/PO, primarily for strongly caustic alkaline cleaning agents, especially in commercial applications. Used e.g. in highly alkaline CIP cleaners.	Has a very high degreasing power and at the same time has a lime-inhibiting effect. Highly soluble in caustic alkalis, only slightly soluble in water (TENSAN KS recommended as a solubiliser).
<b>TENSAN N-077</b>	For various fields in the chemicaltechnical industry, such as e.g. lubricants, electroplating and detergents.	Neither clearly hydrophobic nor hydrophilic. Low reduction of surface tension of water. No surfactant acc. to detergency regulation. Very low foaming tendency. Cloud point can be determined as with classical nios. Clear solubility in water, alcohol and aromatic solvents. Acts as defoamer at temperatures above cloud point. Very good resistance in acidic media, good heat stability and not sensitive to shearing.
<b>TENSAN N-078</b>	For various fields in the chemical technical industry, such as e.g. lubricants, electroplating and detergents.	Very good stability in acidic formulations and above-average stability in alkaline media. The low PEG content and the conformation of the molecule result in very low foam formation. Independent of pH in aqueous systems. Low water solubility, but good solubility in various organic media (ethanol, isopropanol): clear solutions.
<b>TENSAN N-100</b>	Easily biodegradable, narrow range nio-surfactant based on a natural fatty alcohol. Use in neutral, acidic and basic degreasing agents. Low odor, very low foam.	Fast wetting properties and good spreadability. Active defoaming above the cloud point (6 ° C). It is dispersible in water, so a solvent such as TENSAN KS is recommended.
<b>TENSAN N-101</b>	Easily biodegradable, narrow range nio-surfactant based on a natural fatty alcohol. Low odor, reduced foam.	Is used in acidic, neutral and alkaline cleaners as a wetting agent and above the cloud point (80 ° C) also as a defoamer. It is used as an emulsifier in aqueous fat-dissolving preparations.
<b>TENSAN N-199</b>	Nonionic surfactant with very good wetting and degreasing properties.	Used in low-foam cleaners (defoaming properties at temperatures above 35°C), high gloss dryers and rinse aids for washing dishes and glass (hydrophilic at elevated temperatures). Easily combinable with nonionics (particularly APGs), quats and anionic surfactants.
<b>TENSAN N-304</b> <b>NEW</b>	Non-ionic foam booster, has a foam-stabilizing effect. Emulsifying properties. Has an antistatic and anti-corrosive effect.	Viscosity regulator, foam booster and moisturizing agent for manually applied cleaners.
<b>TENSAN N-423</b>	Non-ionic emulsifier and good solubiliser for fragrances such as perfumes and essential oils.	Can be used as a dissolving agent for most cleaning agents and also for room fragrances and air fresheners.



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## TENSAN N-711

Wetting agent, emulsifier, defoamer for acidic, neutral and alkaline aqueous cleaners (above cloud-point).

Very good fat emulsifier in alkaline cleaners. Easily combinable with nonionics (particularly APGs), quats and anionic surfactants.

## Alkyl polyglucosides

### TENSAN G-B

Als TENSAN G-B MB in RSPO-Quality

Multifunctional APG as main and cosurfactant for I-I and household cleaners. Particularly suitable for metal degreasing, tarpaulins, blinds, garden furniture, ultrasonic bath cleaners, pressure cleaners.

Good stability and solubilising properties. Good compatability with any kind of surfactants. May reduce viscosity of highly concentrated surfactants. Biodegradable.

### TENSAN G-CA

Als TENSAN G-CA MB in RSPO-Quality

Multifunktionales, schaumreduziertes APG als wesentliches und unterstützendes Tensid für I&-I- und Haushaltsreiniger. Besonders geeignet als CIP-Reiniger für die Entfettung von Metall, als Bodenreiniger und Reiniger für Kunststoffoberflächen.

Particularly friendly to skin and mucous membranes. Good stability and alkali resistance. Good solubiliser and wetting agent. Good compatibility with any kind of surfactants. Biodegradable.

### TENSAN G-CC

Als TENSAN G-CC MB in RSPO-Quality

Foam-active. Particularly friendly to skin and mucous membranes. Surface-active, affinity to hydrophobic and hydrophilic surfaces. Stable to alkali and acids. High electrolyte resistance. Good compatibility with any kind of surfactants. Easily biodegradable.

### TENSAN G-CD15

Als TENSAN G-CD15 MB in RSPO-Quality

Multifunctional, foam-active APG as an essential and supportive surfactant for I&I and household cleaners. Particularly suitable for degreasing metal, cleaning plastic surfaces, floors, tarpaulins, blinds, garden furniture, as well as for ultrasonic bathroom cleaners or pressure cleaners.

Particularly friendly to skin and mucous membranes. Surface-active, affinity to hydrophobic and hydrophilic surfaces. High cleaning and emulsifying power. Very high compatibility with amphoteric and anionic surfactants. Shows thickening properties especially in combination with anionic surfactants. Easily biodegradable.

### TENSAN G-CD25

Als TENSAN G-CD25 MB in RSPO-Quality

Especially friendly to the skin and mucous membranes. Surface active. Affinity with respect to hydrophobic and hydrophilic surfaces. High level of cleaning and emulsifying power. Very good compatibility with amphoteric and anionic surfactants. Easily biodegradable.

PRODUCTNAME	APPLICATION AREA	DESCRIPTION
<b>TENSAN G-CO</b> Als TENSAN G-CO MB in RSPO-Quality		Particularly friendly to skin and mucous membranes. Surface-active, affinity to hydrophobic and hydrophilic surfaces. High cleaning and emulsifying power. Very high compatibility with amphoteric and anionic surfactants. Shows thickening properties especially in combination with anionic surfactants. Easily biodegradable.
<b>TENSAN G-CG-LV</b> Als TENSAN G-CG-LV MB in RSPO-Qualität	Multifunctional, foam-active APG as main and co-surfactant for I&I and household cleaners. Particularly suitable for degreasing metal, cleaning plastic surfaces, floors, tarpaulins, blinds, garden furniture as well as for ultrasonic bath cleaners or high-pressure cleaners.	Particularly skin-friendly. Surface-active, affinity to hydrophobic and hydrophilic surfaces. High cleaning and emulsifying capacity. Very good compatibility with amphoteric and anionic surfactants. Shows thickening properties, especially in combination with anionic surfactants. Easily biodegradable.
<b>TENSAN G-D</b> Als TENSAN G-D MB in RSPO-Quality	Multifunctional APG as main and cosurfactant for I+I and household cleaners. Particularly suitable for metal degreasing, cleaning plastic surfaces, floor, tarpaulins, blinds, garden furniture, ultrasonic bath cleaners, pressure cleaners.	Particularly friendly to skin and mucous membranes. Surface-active, affinity to hydrophobic and hydrophilic surfaces. Stable to alkali and acids. High electrolyte resistance. Good compatibility with any kind of surfactants. Easily biodegradable.
<b>TENSAN G-DCC</b> <b>NEW</b>	Multifunctional, foam-active APG as the main and co-surfactant for I&I and household cleaners. Particularly suitable for degreasing metal, cleaning plastic surfaces, floors, tarpaulins, blinds, garden furniture and for ultrasonic bathroom cleaners or high-pressure cleaners.	Particularly skin-friendly. Surface active, affinity for hydrophobic and hydrophilic surfaces. Stable to alkalis and acids. High resistance to electrolytes. Good compatibility with all types of surfactants. Easily biodegradable. Darker color, cheaper.
<b>TENSAN G-DK</b> Als TENSAN G-DK MB in RSPO-Qualität	Multifunctional, foam-active APG as main and co-surfactant for I&I and household cleaners. Particularly suitable for degreasing metal, cleaning plastic surfaces, floors, tarpaulins, blinds, garden furniture as well as for ultrasonic bath cleaners or high-pressure cleaners.	Particularly skin-friendly. Surface-active, affinity to hydrophobic and hydrophilic surfaces. Stable to alkalis and acids. High resistance to electrolytes. Good compatibility with any kind of surface-active substances. Easily biodegradable.
<b>TENSAN G-H</b> Als TENSAN G-H MB in RSPO-Quality	Multifunctional APG as main and cosurfactant for I+I and household cleaners. Particularly suitable as CIP cleaner in metal degreasing, cleaning of floors and plastic surfaces.	Especially friendly to the skin and mucous membranes. Good stability and alkali resistance. Good solubilising agent and wetting agent. Good compatibility with any kind of surfactant. Biodegradable.

PRODUCTNAME	APPLICATION AREA	DESCRIPTION
<b>TENSAN G-L</b> Als TENSAN G-L MB in RSPO-Qualität	Multifunctional, foam-active APG as main and co-surfactant for I&I and household cleaners. Particularly suitable for degreasing metal, cleaning plastic surfaces, floors, tarpaulins, blinds, garden furniture as well as for ultrasonic bath cleaners or high-pressure cleaners.	Particularly skin-friendly. Surface-active, affinity to hydrophobic and hydrophilic surfaces. High cleaning and emulsifying capacity. Very good compatibility with amphoteric and anionic surfactants. Shows thickening properties, especially in combination with anionic surfactants. Easily biodegradable.
<b>TENSAN A-352</b> <b>NEW</b>	Highly foaming, anionic surfactant. Has a foam-enhancing and stabilizing effect. It has good wetting properties and is hydrotropic.	Very good skin tolerance, therefore well suited for household cleaners such as hand dish-washing liquid.
<b>TENSAN A-419</b> <b>NEW</b>	Fast-wetting surfactant with extremely good wetting properties for a wide range of applications. Effective wetting, even on very hydrophobic surfaces.	Can be used as a wetting agent in many cleaning or washing agents, especially then when the contact time with the surface to be cleaned is very short (e.g. window or glass cleaner) or the wetting should be increased. Ethanol free.
<b>TENSAN A-602</b> <b>NEW</b>	Highly foaming, anionic surfactant. It has good wetting properties, is antistatic and anti-corrosive. Good electrolyte tolerance. Also suitable for highly alkaline systems.	Very good skin tolerance, therefore well suited for household cleaners such as hand dish-washing liquid.
<b>TENSAN BHS</b>	A multi-functional anionic surfactant with good stability and hydro-tropic properties in a wide pH range, in both hard and soft water. It can also be used with extreme pH values. Can also be used to increase viscosity, as a foam booster. Low irritation potential.	For cleaning especially hard surfaces and transport equipment. Synergistic effects with respect to non-ionic and anionic surfactants, thereby improving the removal of dirt in other cleaners.

# Special Surfactants



PRODUCTNAME	APPLICATION AREA	DESCRIPTION
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## Fluorosurfactants

PRODUCTNAME	IONIC TYPE	FORM	% SOLIDS	DILUENT	PROPERTIES
THETAWET FS-8050	nonionic	Liquid	50	Water	Short-chain fluorosurfactants with exceptionally efficient wetting properties at very low concentrations (0.01-0.1%). Stable at extreme pH values and oxidizing conditions.
THETAWET FS-8020EB	anionic	Liquid	30	Water / Butyldiglykol	
THETAWET FS-8250	anionic	Cloudy liquid	28	Water	