



Excellent wetting, hydrotroping and coupling, even in extreme pH systems with excellent hard water tolerance



Petro<sup>®</sup> Anionic Surfactants

**Nouryon**

# The Petro<sup>®</sup> series of alkyl naphthalene sulfonates are specifically designed to function in applications with extreme requirements.

All Petro products exhibit excellent wetting, detergency, hard water tolerance, hydrotroping, coupling, high and low temperature stability, water solubility and compatibility with acid, caustic as well as other electrolytes.

## Rinsability / friability

Petro products are easily removed from surfaces with rinsing. Petro formulations can dry to a hard brittle residue (solid, crystalline anionic powder), capturing the soil, which is easily removed for example during the drying stage of carpet cleaning, or by vacuuming. Standard high-foaming surfactants leave sticky, gummy residues which can promote redeposition of soil.

Petro products are used as processing aids for mineral coatings by uniforming the particle size which speeds up filtration. They can also be added to powders as dispersants to reduce/eliminate solidification and improve flow.

## Foaming

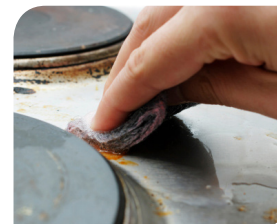
### Low foam (Petro<sup>®</sup> 22N)

Petro 22N is a low foaming surfactant with excellent hydrotropic, fast foam dissipation and wetting properties for applications such as steam cleaning or soak formulations. Petro 22N is used in high pressure spray cleaning applications and it will not clog spray nozzles.

This surfactant can be used in acid and alkaline systems, in de-scaling, automatic dish wash and other applications that include high temperature and/or vigorous agitation. Petro 22N can also act as anticaking agent (e.g. copper sulfate, sodium bicarbonate, etc) and it has excellent hard water tolerance.

### Medium foam (Petro<sup>®</sup> AG Special, Petro<sup>®</sup> BA, Petro<sup>®</sup> LBA)

- Efficient dispersants
- Effective anti-caking and hydrotropic properties, stable in phosphoric acid
- Immediate solubility in cold water



These products are used in many I&I type applications like floor cleaning, hard surface cleaning, metal cleaning, rust removers, carpet cleaning, vehicle cleaning and food processing (fruit & vegetable wash). The recommended use level is 1 to 10% by weight, as anticaking agent 0.4 to 4.5 lb/ton. Petro LBA is low color. The optimum medium foam product depends upon formulation specifics.

### High foam (Petro<sup>®</sup> LBAF)

Petro LBAF is well suited for rug and upholstery shampoos based on sodium lauryl sulfate. In this application Petro LBAF will improve freeze thaw stability on the formula, and gives a friable residue that is easily removed from the soft surface. Because of its stability in both high and low pH, Petro LBAF can be used in acid or alkaline cleaners. For example, toilet bowl cleaners (acidic), cement floor cleaners, industrial transportation cleaners, metal cleaners/degreasers and oven cleaners. The recommended use level is 1 to 15 % by weight. Petro LBAF is a low color product.

Properties	Petro 22N	Petro AG Special	Petro LBA	Petro BA	Petro LBAF
Ross-Miles foam height, mm @ 25°C, 0.25%	30	106	70	113	160
Color Klett, max. @ 5% aqueous	600	600	N/A	600	N/A
Color Gardner, max.	N/A	N/A	12	N/A	12
Draves wetting, sec @ 1% actives in water, 25°C	9	20-30	103	20-30	3
Surface tension, dynes/cm @ 25°C Du Noüy, 0,1%	51	34	59	43	37

Petro products are supplied as either 95% powder or 50% solution in water.



<b>Petro 22N</b>	Low foam rinse aids, carpet cleaning, high pressure spray cleaning, automatic dish wash
<b>Petro AG Special Petro BA Petro LBA</b>	Caustic & acid cleaners, floor cleaner, hard surface cleaner, metal cleaner, rust removers, carpet cleaner, vehicle cleaning and food processing (fruit & vegetable wash), spray cleaning, automatic dish wash
<b>Petro LBAF</b>	High foam, rug and upholstery shampoos, acid and alkaline cleaners, toilet bowl cleaner (acidic), cement floor cleaner, industrial transportation cleaner, metal cleaner/degreaser, oven cleaner

The unique functionalities of the Petro products provide cutting-edge solutions for a wide range of applications. All formulations are expressed in percent of product by weight as supplied.

### Representative formulations

#### Liquid spray alkaline cleaner (mild steel)

Petro BA liquid	5%
Dissolvine® 100-S	2%
Sodium nitrate	0.5%
Sodium gluconate	2%
Caustic soda, beads	10%
T-Mulz® 800	2%
Water	Balance

#### Upholstery shampoo

Petro LBAF liquid	2.5%
Sodium lauryl sulfate, 30%	17%
Dissolvine 100-S	1%
Water	Balance

#### Carpet cleaner & spotter

Petro LBAF liquid	1%
Sodium lauryl sulfate, 30%	3.3%
2-butoxyethanol	5.8%
Water	Balance

#### Car wash (moderate foam)

Petro LBA liquid	4%
Lauryl ether sulfate, 60%	10%
Monococoamide	4%
Preservative	q.s.
Sodium chloride	as needed to build viscosity
Water	Balance

#### Alkaline arch spray

Petro 22N liquid	2%
Dissolvine 100-S	13%
Tetrapotassium pyrophosphate, gran	4%
Sodium metasilicate pentahydrate	4%
T-DET® A-826 or 827	7%
Water	Balance

#### Extraction carpet cleaner (low foam, friability)

Petro 22N liquid	10%
Dissolvine 100-S	4%
Perfume	q.s.
Water, DI	Balance

#### Carpet shampoo (medium foam)

Petro AG Special liquid	6.7%
Sodium lauryl sulfate, 30%	22.2%
Water	Balance

#### Rinse aid (low foam)

Petro 22N liquid	10%
Berol® 840	35%
Preservative, dye	q.s.
Water, DI	Balance

#### Hard surface cleaner (moderate foam)

Berol 260	4%
Sodium metasilicate	8.3%
Dissolvine 100-S	7%
Petro BA liquid	7%
Water, DI	Balance

#### Carpet shampoo (high foam)

Petro LBAF liquid	3.8%
Water	77.5%
Sodium lauryl sulfate, 30%	22.2%
Preservative, etc	q.s.
Water, DI	Balance

#### Foamy brush car wash, liquid (high foam) not touchless

Petro LBAF liquid	3.0%
Linear DDBSA	5.0%
Lauryl ether sulfate, 60%	7.0%
NaOH, 50% liq.	1.4%
Preservative	q.s.
Sodium chloride	q.s.
Water, DI	Balance

Contact us directly for detailed product information and sample request  
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# Nouryon

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