

## FORMULATIONS FOR CLEANERS AND DETERGENTS

### Alkaline cleaner for aluminium with corrosion inhibition

POLYGON PCG 1946	5.0%
TENSAN KS	6.0%
OPTIGONAL K-N	3.0%
POLYGON PCG 1419	2.0%
Na-metasilicate x 5 H <sub>2</sub> O	2.0%
Propylene glycol-n-butylether	3.0%
KOH (45%)	2-15%
balance to 100% water	

Applied concentration: 2-10%

### Cleaner for vehicle grills

POLYGON PCG 1821	5.0%
POLYGON PC 1390	2.0%
Na-metasilicate x 5 H <sub>2</sub> O	3.0%
POLYGON PCG 1831	2.0%
triethanolamine (TEA)	5.0%
balance to 100% water	

Applied concentration: diluted with water in a ration of 1:10, wait, rinse off

### Cleaner for façades, low foam

POLYGON PCG 1935	7.5%
POLYGON PC 1630	2.0%
monoethanolamine (85%)	4.0%
propylene glycol-n-butylether or butyl glycol	3.0%
KOH (45%)	2.0%
balance to 100% water	

Applied concentration: 5-10%

PCG 1935 contains low foam surfactants and corrosion inhibitors. If higher viscosity is desired, add 0.5 to 1.0% of POLYGON PC 2020

**Degreaser, free of phosphates and NTA**

POLYGON PCG 1946	10.0%
TENSAN KS	8.0%
OPTIGONAL K-N	3.0%
Na-metasilicate x 5 H <sub>2</sub> O	3.0%
NaOH (50%)	2.0%
balance to 100% water	

This formulation is free of phosphates, NTA or any other classic chelating agent.

**Clear for automated dish washing, liquid, without chlorine, no corrosive**

POLYGON PCG 1406	8.0%
POLYGON PC 1199	1.0%
OPTIGONAL K-N	6.0%
K-metasilicate x 5 H <sub>2</sub> O (40%)	1.0%
NaOH (45%)	1.0%
balance to 100% water	

Applied concentration: ca. 2-4 g/l

**Descalant for coffee machines in powder/granules**

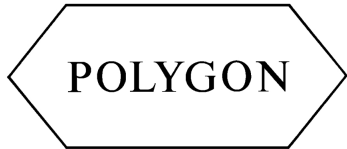
amidosulfuric acid	88.0%
POLYGON PC 1234	10.0%
POLYGON PC 1729	2.0%

**Powr cleaner, descalant, and acidic sanitary cleaner**

C10-fatty alcohol with ~8EO	0.3%
phosphoric acid (75%)	2.0%
citric acid x H <sub>2</sub> O (pdr)	4.0%
amidosulfuric acid (pdr)	8.0%
POLYGON PCG 1923	0.5%
POLYGON PCG 1206	1.0%
perfume	0.2%
blue colorant	0.001%
balance to 100% water	

pH: < 1 (in the concentrate)

Applied concentration: undiluted or diluted with water up to 1:20..



**Cleaner for plastics**

POLYGON PCG 2029	5.0%
propylene glycol-n-butylether	10.0%
TKPP (tetrapotassium pyrophosphate)	5.0%
monoethanolamine (MEA)	2.0%
OPTIGONAL DX-O	2.0%
balance to 100% water	

Applied concentration: diluted with water 1:10 to 1:30

**Cleaner for light alloy rims, neutral, as gel**

water	50.0%
POLYGON PC 2008	0.4%
POLYGON PCG 2029	10.0%
POLYGON PC 1873	1.5%
propylene glycol-n-butylether	3.0%
thioglycolic acid (70%)	10.0%
NaOH (50%)	ca. 6%
colorant	0.0003%
balance to 100% water, preservative	

Production: let POLYGON PC 2008 swell in 50% of the water. Add NaOH to reach pH=7.

Application: Before washing the car spray on the rims, leave it on for a short time, wash it down. When rims are very dirty, product can be left on the rims up to 30 min.

**Pre-cleaners/insect removers for cars**

POLYGON PCG 2029	10.0%
1,2-propylene glycol	10.0%
methylglycinediacetic acid (trisodium salt, 40%, liq.)	10.0%
OPTIGONAL K-N	2.0%
perfume	0.1%
balance to 100% water	

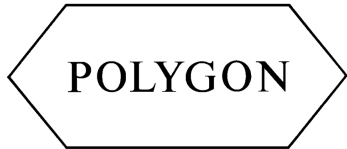
pH: approx. 11.3

Applied concentration: 1-2%, residence time: approx. 2-10 min.

**highly alkaline fine stone cleaner**

POLYGON PCG 1439	5.0%
POLYGON PCG 1930	5.0%
KOH (45%)	20.0%
balance to 100% water	

Application: as is or 10% in water.



**Cleaner with sodium hypochlorite**  
**Mould remover with sodium hypochlorite**

sec. alkane sulfonate (Na salt, 30%)	5.0%
C <sub>12</sub> -C <sub>14</sub> -lauryldimethylamine oxide (31%)	3.0%
NaOH (50%)	2.0%
POLYGON PC 1393	2.0%
Na hypochlorite (15% solution)	25.0%
balance to 100% demin water, colorant, perfume	

Applied concentration: as is or diluted with water up to 1:5. Let product reside for time enough. Process ev. to be repeated several times.

**Sanitary base cleaner with corrosion inhibition**

POLYGON PCG 2029	5.0%
phosphoric acid (75%)	20.0%
citric acid x H <sub>2</sub> O (pdr)	3.0%
POLYGON PCG 1661	2.0%
perfume	0.2%
blue colorant	0.001%
balance to 100% water	

Applied concentration: 1:10 to 1:30 diluted with water.

**Acidic metal degreaser with protection against rust (foaming)**

POLYGON PCG 2029	5.0%
TENSAN TEM	5.0%
POLYGON PCG 1661	3.0%
butyldiglycol	5.0%
phosphoric acid (85%)	20.0%
balance to 100% water	

Applied concentration: 5-10%

**Intense foam cleaner/degreaser for industrial purposes**

POLYGON PCG 1444	6.0%
TENSAN PCG 1439	4.0%
monoethanolamine	9.9%
1,2 propylene glycol	5.0%
KOH (45%)	5.0%
water	70.1%

**Soap cleaner for stone floors**

POLYGON PC 1721	3.0%
soya fatty acid	10.0%
KOH (45%)	ca. 4.5%
POLYGON PCG 1930	3.0%
balance to 100% water	

Aspect: clear; Applied concentration: 2-5%. Low foam. Leaves a nice shine on the stone.

**Cleaner for the washing machine**

POLYGON PC 1199	10.0%
Didecyldimethylammonium chloride	5.0%
lactic acid (80%)	10.0%
TENSAN TEM	5.0%
POLYGON PCG 1923	1.0%
balance to 100% water	

Applied concentration: 50g / washing programme

Remark: If used without didecyldimethylammonium chloride, the quantity of lactic acid has to be increased or other acids have to be added and the quantity of PCG 1923 has to be increased to 2-2.5%.

**Shop floor and factory floor cleaners**

POLYGON PCG 2029	7.5%
OPTIGONAL DX-O	2.0%
TKPP (tetrapotassium pyrophosphate)	5.0%
triethanolamine (technical quality)	15.0%
Na-metasilicate x 5 H <sub>2</sub> O	3.0%
KOH (45%)	2.0%
balance to 100% water, colorant, perfume	

Production: add the components to water in the above order.

Application: 1:2 to 1:20; let it reside 15 minutes, rinse off with water.