

# Cyclic siloxanes in silicone-based surface additives

# Purified alternatives to additives with a higher cyclic siloxanes content

As of June 2018, silicone-based products containing 0.1% or more D4, D5, or D6 cyclic siloxanes must be labeled as SVHC (Substance of Very High Concern) on the EU Safety Data Sheet.

BYK offers purified alternatives with a residual D4, D5, and D6 content of less than 0.1% each to ensure safe use in any formulation.

#### What does "purified" mean?

By adding an additional production step after manufacturing, the D4, D5, and D6 cyclic siloxanes content is reduced to less than 0.1% each.

#### BYK silicone additives with a cyclic siloxanes content of 0.1% or higher and their low cyclic alternatives:

Standard additives with a cyclic siloxanes content of ≥ 0.1 %	Alternatives with a cyclic siloxanes content of < 0.1 %
BYK-300*1	BYK-3750*1/BYK-3755*1
BYK-301	BYK-3751
BYK-302	BYK-3752
BYK-306*1	BYK-3761*1/BYK-3765
BYK-307	BYK-3762
BYK-323	BYK-3780
BYK-330	BYK-3763
BYK-331	BYK-3753
BYK-342	BYK-3754/BYK-3756
BYK-370*1,2	BYK-3772
BYK-375*2	-
BYK-377	BYK-3771
BYK-378	BYK-3764
BYK-SILCLEAN 3701	-
BYK-SILCLEAN 3710	-
BYK-UV 3500	Technical alternative: BYK-UV 3505*2
BYK-UV 3510	BYK-UV 3511
BYK-UV 3575*2	-

## Cyclic siloxanes D4/D5/D6

D4 = CMR substance + SVHC

D5 = SVHC

D6 = SVHC

\*2 Contains organotin

<sup>\*1</sup> Aromatic solvent (BTX) G.01

T. 01

## Surface additives – Overview of non-reactive silicones



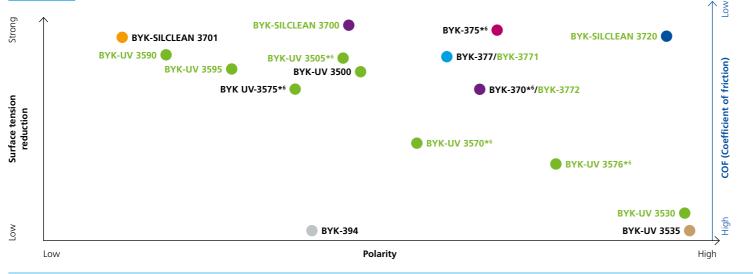
- Solvent-borne
- Universal (solvent-borne and aqueous)
- Solvent-borne and defoaming properties
- Solvent-borne and heat-stable
- Solvent-borne, heat-stable, and defoaming properties

Cyclic siloxanes content D4/D5/D6 < 0.1% each Cyclic siloxanes content D4/D5/D6 < 0.1% each and aromatic-free\*4

- \*3 Contains organotin
- \*4 Contains no intentionally added benzene, toluene, or xylene solvents
- \*5 Extended food contact compliance.
  For detailed information please check
  https://www.byk.com/en/service/regulatory-affairs/
  food-contact or contact our BRIEF Team.

G. 02

### Surface additives – Overview of reactive additives



#### Silicone-based

- Solvent-borne, OH-functional
- Agueous, OH-functional
- Solvent-borne, heat-stable, OH-functional
- Universal (solvent-borne and aqueous), heat-stable,
   OH-functional
- Acrylic-functional
- Solvent-borne, epoxy-functional

#### Silicone-free

- Solvent-borne, OH-functional
- Acrylic-functional

Cyclic siloxanes content D4/D5/D6 < 0.1% each Cyclic siloxanes content D4/D5/D6 < 0.1% each and aromatic-free\*<sup>7</sup>

- \*6 Contains organotin
- \*7 Contains no intentionally added benzene, toluene, or xylene solvents



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This issue replaces all previous versions.





