

## SIPERNAT® D 17 – Prevention of Caking in Vitamins, Minerals, and Premix Powders



Vitamins and minerals are hygroscopic, sticky, and generally not easy to handle. SIPERNAT® D 17 is perfectly suited to reduce particle adhesion. When coated with SIPERNAT® D 17, flowability is improved and caking is prevented. Low dosage levels are effective in keeping powders free flowing.

### SIPERNAT® D 17 the unique moisture protection agent

SIPERNAT® D 17 precipitated hydrophobic silica is a specialty free-flow & anti-caking aid. Due its hydrophobic surface, it prevents hygroscopic/sticky powders from adsorbing moisture. Low dosage levels are effective in keeping powders free flowing during the production process and storage over an extended period, even under challenging environmental conditions.

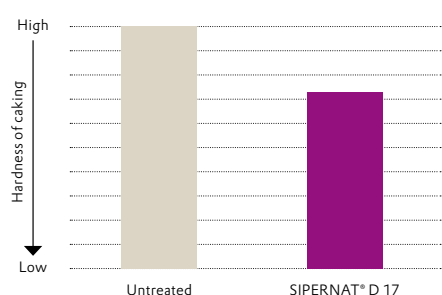


### Products which may benefit from SIPERNAT® D 17

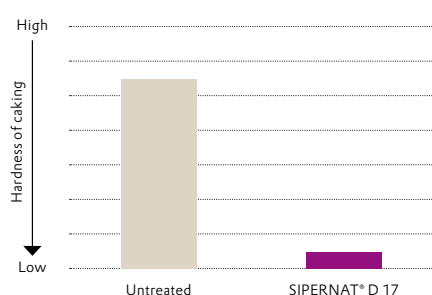
- Minerals, e.g. Copper Sulfate, Zinc Sulfate, Manganese Sulphate, Salts
- Vitamin A, Vitamin C, D3
- Choline Chloride
- All types of premixes

### Anticaking impact and flowability improvement of a Mineral & Vitamin Premix

Caking behaviour of a mineral premix



Caking behaviour of a vitamin premix



**Figure 1 and 2**  
At just 0.25 % dosage, SIPERNAT® D 17 reduced caking of a mineral premix by 30% and of a Vitamin premix by over 90%.

For a more sustainable and efficient production, transport and storage of various feed powders



- **Unique anticaking performance**

SIPERNAT® D 17 provides greater moisture uptake protection due to its hydrophobic characteristics. Porosity is not a limiting factor to performance.

- **Improved handling and product quality**

SIPERNAT® D 17 optimizes flowability for accurate and precise dosing enabling consistent quality with less rejected product resulting from caking and inconsistent dosing.

- **Promotes manufacturing efficiency and sustainable processes**

SIPERNAT® D 17 optimizes continuous production without shutdown to reduce energy usage and material waste to create safe and sustainable products.

- **Cost-in-use benefit**

Low dosage levels of SIPERNAT® D 17 leads to great anticaking and free-flow performance. Compared to hydrophilic silica, 3–4 times lower dosage can be utilized.

PRODUCT	MEDIAN PARTICLE SIZE (µm)	LOSS ON DRYING (%)	pH	WETTABILITY BY METHANOL (m <sup>2</sup> /g)	TAMPED DENSITY (kg/m <sup>3</sup> )	REGIONAL AVAILABILITY
SIPERNAT® D 17	10.0	6.0	8.0	≥ 52	150	EMEA/AMERICAS*/ASIA*

\*Regional restrictions

*The given data are typical values. Specifications on request. Evonik strives for quality, consistency and reliability. Evonik precipitated silica products comply with various global regulatory requirements, e.g., SIPERNAT® D 17 is registered in the European Union Register of Feed Additives (as E551 a silicic acid, precipitated and dried) and complies to Directive 2002/32/EC. Please contact Evonik for further information regarding regulatory approvals. SIPERNAT® D 17 is certified as Kosher and Halal (certificates upon request).*

**More information**  
evonik.click/smarteffects-feed



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