



TOROWHITE

ENGINEERED FUNCTIONAL ADDITIVES

PRODUCT DATA SHEET

FOG 20

FOOD AND PET FOOD GRADE

CALCIUM SULFATE DIHYDRATE

HIGHLIGHTS

- 100% naturally sourced
- Fine, white powder with a neutral taste
- Made from rare, food- and pharma-grade natural calcium sulfate
- High purity (>99% CaSO₄)
- Bright white appearance
- Excellent sensory (organoleptic) properties
- Approved as EU food additive (E516)
- Supports salt reduction strategies
- Enhances texture
- Helps extend shelf life

TOROWHITE FOG 20 is a finely milled, bright white powder that is odorless and neutral in taste. It is produced from rare, high-quality natural calcium sulfate suitable for food and pet food applications. Sourced and manufactured in Spain, it is derived from exceptionally pure natural calcium sulfate deposits.

APPLICATIONS

The use of Calcium Sulfate Dihydrate is widely spread in the food industry across a large number of food processing applications and represents a valuable ingredient with a positive impact not only on taste and texture but also on health.

- Bakery and pastry
- Starter cultures, fermentation starter and yeast foods
- Brewing beer
- Sherry wine production
- Calcium supplement
- In canned peas, tomatoes, potatoes, green sweet peppers, red sweet peppers, lima beans and carrots
- Fish, meat and prepared foods
- Cereals, pasta, flours, corn meals
- Confections, frostings, gelatins, soft-serve ice-cream and other frozen desserts, artificially sweetened jellies
- Vegan and vegetarian products
- Cheese and tofu production

More precisely, the ingredient is used as:

- | | |
|--|----------------------------|
| • Dough strengthener | • Acidity regulator |
| • Drying, anticaking and firming agent | • Processing aid |
| • Flour treating and pH control agent | • Stabilizer and thickener |
| • Formulation aid | • Synergist |
| • Leavening agent | • Texturizer |



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TECHNICAL DATA

Physical properties

Tap Density (g/cm ³) ⁽¹⁾	0.9
Pycnometer Density (g/cm ³) ⁽²⁾	2.8 - 3.0
Mohs hardness ⁽³⁾	2.0
Refractive index ⁽³⁾	1.57 - 1.60
Whiteness (CIE L value) ⁽⁴⁾	L* > 95
Medium particle size D50 (microns) ⁽⁵⁾	18 - 22
Medium particle size D98 (microns)	40 - 45
Oil Absorption Rate (g/100g) ⁽⁶⁾	37
BET Surface Area (m ² /g) ⁽⁷⁾	N/N
pH (10% slurry)	7.0 – 8.0
Purity	> 99% CaSO ₄ (in dry product)
Crystal shape	monoclinic
Water content	20% (TGA method)

- (1) According to the standard ASTM B527
(2) Quantachrome Ultrapyc-1200e
(3) Literature data (R. Rother, Fillers for Polymer Applications, Springer 2017)
(4) Datacolor ELREPHO
(5) Malvern Mastersizer 3000
(6) ASTM D1483

Typical Chemical Analysis

Chemical name	Calcium Sulfate Dihydrate
Molecular formula	CaSO ₄ · 2H ₂ O
CAS number	10101-41-4

Food & Pharma Grade raw material with following results for FOG 20

Assay	>99%
Flame Test	Red Flame Calcium present
Sulphate Test	Present
Solubility in Water	Slightly soluble
Solubility in Ethanol	Insoluble
Fluoride (Anion IC)	< 30 mg/kg
Selenium (F5202)	< 10 mg/kg
Arsenic (F5202)	<1.0 mg/kg
Lead (F5202)	<1.0 mg/kg
Mercury (F5202)	<0.5 mg/kg

This information is given to the best of our knowledge. Although all statements and results shown in this document are believed to be accurate and reliable, they are presented for guidance and as information only. Because of the multitude of formulations and processing conditions, the above-mentioned statements must be adapted by user to the requirements of each application.