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Quality Systems: ISO 9001 | ISO 10002 | HACCP

TECHNICAL DATA SHEET (TDS) – FOOD & ANIMAL FEED GRADE (E170)

High-Purity Natural Calcium Carbonate ($CaCO_3$) – Granular & Micronized

Product / E-Code	Calcium Carbonate (E170)	**CAS / EINECS**	471-34-1 / 207-439-9
Regulatory Compliance	HACCP, EU Regulation 231/2012, Turkish Food Codex (TGK), ISO 9001, ISO 10002		

1. PRODUCT DESCRIPTION & PHYSICAL FORMS

Produced from selected ultra-pure natural calcite reserves under strict hygienic controls and high-intensity magnetic separation:

- **Granular Grade:** Dust-free, free-flowing granules produced in custom particle size ranges tailored to customer specifications for seamless dosing in dietary supplements, food fortification, and animal feed premixes.
- **Micronized Grade:** Ultra-fine, high-bioavailability powder available in a wide range of particle sizes for bakery, dairy alternatives, confectionery, and nutritional formulations.

2. CHEMICAL & OPTICAL SPECIFICATIONS (LAB VERIFIED)

Parameter	Typical Range / Value	Unit
Calcium Carbonate ($CaCO_3$)	**99.14 – 99.33**	%
Whiteness	**91.87 – 93.76**	%
Brightness	**92.58 – 94.40**	%
Moisture Content	**0.10 – 0.13**	%
HCl Insoluble Matter	**0.019 – 0.024**	%
pH Value	**7.52 – 7.60**	—
Particle Size Distribution	Custom Range (Upon Request)	—

3. HEAVY METALS & CONTAMINANTS (ACCREDITED LAB VERIFIED)

Parameter	Actual Test Result	Unit
Arsenic (As)	**0.005 – 0.006**	mg/kg
Lead (Pb)	**< 0.001**	mg/kg
Cadmium (Cd)	**< 0.001**	mg/kg
Mercury (Hg)	**< 0.005**	mg/kg
Fluorine (F)	**< 0.001**	mg/kg
Dioxins & Dioxin-like PCBs / Non-Dioxin-like PCBs	**Not Detected**	—

4. MICROBIOLOGICAL SPECIFICATIONS (TÜRKAK ACCREDITED LAB VERIFIED)

Parameter	Unit	Specification Limit	Actual Result	Test Method
Escherichia coli (E. coli)	CFU/g	Max. 10	**< 10**	ISO 16649-2:2001
Salmonella spp.	/ 25 g	Absent (0 / 25g)	**Not Detected**	BIO-RAD RAPID' Salmonella
Yeasts & Molds	CFU/g	Max. 100	**< 10**	ISO 21527-1:2008

5. DIETARY STATUS, PACKAGING & STORAGE

- **Dietary & Religious Compliance:** 100% Non-GMO, Allergen-Free (EU 1169/2011), Vegan, Vegetarian, Halal Compliant.
- **Packaging & Export Logistics:** Food-grade 25 kg multi-wall Kraft bags (with PE inner liner) or 1,250 kg BigBags. Export shipments are palletized on **certified fumigated wooden pallets**.
- **Storage & Shelf Life:** Store in a cool, dry, odor-free indoor area. Shelf life: 24 months from production date.

Disclaimer: The technical data and analytical values presented in this document are typical average production values verified by accredited laboratory testing and are provided for informational purposes only. Because raw materials are of natural mineral origin and processing conditions vary across applications, users are advised to conduct their own trials to verify suitability for their specific processes. GACH GROUP AMT M.P.D.T. reserves the right to update technical specifications without prior notice.