SPECIALTY CHEMICALS & FOOD/FEED · TECHNICAL DATA SHEET

Sodium Bicarbonate ($NaHCO_3$) — Food, Feed & Technical

Food Grade (EU E500(ii) · USP · FCC) · Animal Feed Rumen Buffer Grade · Industrial DSI Grade

BEG-TDS-NAHCO3

HS Code: 2836.30 · **CAS:** 144-55-8
Inspection: SGS / Intertek Port COA
beroilenergy.com/sodium-bicarbonate-supplier

$NaHCO_3$ ASSAY	HEAVY METALS LIMIT	SUPPLY CAPACITY	INCOTERMS & MIN ORDER
99.0% – 100.5%	≤ 5 ppm (Pb ≤ 2 ppm)	7,000 MT / Month	25–100+ MT · FOB/CFR

Product Overview & Compliance Scope

E500(ii) · USP · FCC

Beroil Energy Group supplies refined Sodium Bicarbonate ($NaHCO_3$) certified for Food & Pharmaceutical manufacturing (FCC / USP / EU E500(ii)), Livestock Rumen Buffering (Animal Feed Grade, ≥ 27.0% active Na), and Technical Dry Sorbent Injection (DSI). Multi-stage carbonation and drying yield free-flowing white crystals with heavy metals strictly ≤ 5 ppm and 12-month stability.

Assay 99.0% – 100.5% | Arsenic ≤ 1–2 ppm · Lead ≤ 2 ppm | pH (1%) 8.0 – 8.6 | 25 kg in 1 MT Jumbo / 50 kg / FIBC



01 · Food Grade Sodium Bicarbonate (EU E500(ii) · USP · FCC Standard)

PACKAGING	MIN. ORDER	DELIVERY	SHELF LIFE
25 kg Bags (or in 1 MT Jumbo)	25 – 100 MT (FCL)	FOB, CPT, CFR ASWP	12 Months (Cool & Dry)

PARAMETER	UNIT	STANDARD REFERENCE	SPECIFICATION LIMIT
Assay ($NaHCO_3$, Dry Basis)	% wt	FCC / USP / EU 231/2012	**99.0 – 100.5**
Loss on Drying (Desiccant)	% wt	USP <731> / FCC	**0.25 Max**
Aqueous pH (1% / 52 g/L @ 25 °C)	pH	USP / Potentiometric	**8.0 – 8.6 (FCC ≤ 8.5)**
Chloride (as Cl)	ppm / %	E500(ii) / ASTM / AOAC	≤ 150 ppm (strict E500) / ≤ 0.04%
Heavy Metals (as Pb)	ppm	USP <231> / ICP-MS	**5 Max**
Lead (Pb) / Arsenic (As)	ppm	EU E500(ii) / FCC	**Pb ≤ 2.0 · As ≤ 1.0 – 2.0**
Iron (Fe) / Water Insolubles	ppm / %	Colorimetric / Gravimetric	Fe ≤ 20 ppm · Insolubles ≤ 0.05%
Appearance & Odor	—	Visual / Sensory	White crystalline powder, odorless

02 · Animal Feed Grade (Rumen Buffer) & Technical Industrial Grade

PARAMETER	UNIT	ANIMAL FEED GRADE SPEC	TECHNICAL / DSI GRADE NOTES
Sodium Bicarbonate ($NaHCO_3$)	% wt	**99.0 Min**	**99.0 Min (Flue-gas & industrial synthesis)**
Active Sodium (Na) Content	% wt	**27.0 Min (27.1–27.3% typ.)**	27.0 Min
Moisture / Loss on Drying	% wt	0.25 Max	0.25 Max
Water Insoluble Matter	% wt	0.05 Max	0.05 Max
Trace Safety Limits	ppm	Cl ≤ 0.04% · Pb ≤ 5 · As ≤ 2	Custom mesh sizing for SO_2/HCl dry scrubbing

Physical Reference, Sector Matrix, Export Packing & Trade Execution

03 · Chemical & Physical Reference

NaHCO₃

Chemical Formula / CAS	**$NaHCO_3$ · CAS 144-55-8**
Molar Mass	84.007 g/mol
Thermal Decomposition	Starts > 50 °C (releases CO_2 & H_2O)
Aqueous Solubility (20 °C)	96 g/L (165 g/L @ 60 °C)
True Density / Bulk Density	2.20 g/cm³ / ~900–1,100 kg/m³
Monthly Supply Capacity	**7,000 MT / Month**
Shelf Life	12 Months sealed < 30 °C

04 · Industrial & Commercial Applications

Multi-Grade

END-USE INDUSTRY	TARGET GRADE & FUNCTION
Bakery, Food & Beverages	**Food E500(ii) / FCC** — leavening & effervescence
Dairy & Poultry Nutrition	**Feed Grade** — rumen pH stabilization (≥ 27% Na)
Pharmaceutical & Dialysis	**USP Grade** — high-purity antacid & buffer formulations
Flue Gas Scrubbing (DSI)	**Technical** — dry SO_2 / HCl acid-gas neutralization
Leather, Textile & Fire Ext.	**Technical** — tanning neutralization & BC dry powder

05 · Food-Safe & Industrial Export Packaging Options

PACKING FORMAT	NET UNIT WEIGHT	CONTAINER FIT (20FT FCL)	COMPLIANCE & DISPATCH FEATURES
25 kg PE-Lined PP / Kraft Bags	**25 kg Net**	20 – 25 MT (Loose or Palletized)	Food-contact PE inner liner; ideal for bakery, food & pharma intake
25 kg Master-Packed in 1 MT Jumbo	**40 × 25 kg / FIBC**	20 – 24 MT	Dual protection: 25 kg bags pre-unitized inside 1 MT sling jumbo bags
50 kg Moisture-Barrier Bags	**50 kg Net**	22 – 25 MT	Cost-effective regional & livestock feedmill handling
1,000 kg FIBC Big Bags	**1,000 kg Net**	20 – 24 MT	Dust-free discharge spout for automated DSI & industrial silos

Thermal & Warehouse Precaution: Keep sealed bags below 30 °C in dry, odor-free storage. Exposure above 50 °C slowly liberates CO_2 and moisture, reducing active bicarbonate assay over time.

06 · Standard Export Procurement & QA Flow

Trade Execution

STEP 01 · GRADE SELECTION

Food E500(ii)/FCC vs. Feed vs. Tech

Specify regulatory standard, granulometry/mesh requirements, packaging (25 kg, 25-in-jumbo, 50 kg, or 1 MT FIBC), and port.

STEP 02 · QUOTATION & COA

Firm FOB / CFR Offer & Batch Specs

Receive allocation pricing backed by typical lab COA covering $NaHCO_3$ assay, heavy metals, chloride, and microbial/food checks.

STEP 03 · CLEAN STUFFING

Food-Grade Container Inspection

Dry, odor-free container verification with SGS/Intertek pre-shipment inspection prior to dispatch under T/T or L/C at Sight.

STEP 04 · CUSTOMS PACK

Certificate of Origin, Health & B/L

Full commercial and food/feed import clearance pack issued promptly upon vessel departure.

Need Food E500(ii) or Feed Sodium Bicarbonate Pricing?

Specify grade (Food E500(ii)/FCC, Feed, or Technical), bag format (25 kg, 25 kg in 1 MT jumbo, 50 kg, or FIBC), tonnage, and destination port.

Request Quote / Lot COA →

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