Creatine Monohydrate

$C_4H_9N_3O_2 \cdot H_2O$ · CAS 6020-87-7 · Creatine monohydrate, crystalline

INDICATIVE SPECIFICATION — CONFIRMED IN WRITING AT QUOTATION

CHEMICAL FORM	FORMULA	CAS	PRIMARY ASSAY
Creatine monohydrate, crystalline	$C_4H_9N_3O_2 \cdot H_2O$	6020-87-7	99.0–101.0% (HPLC)
METHOD	**MINIMUM ORDER**	**LEAD TIME**	**STANDARD PACK**
HPLC	1 kg	1–7 days	1 kg foil pouch

SPECIFICATION

PARAMETER	SPECIFICATION	METHOD / NOTE
Assay	99.0–101.0% (HPLC)	Analytical
Appearance	White crystalline powder	Specification
Identification	IR conforms	Specification
Creatinine	≤100 ppm	Specification
Dicyandiamide	≤50 ppm	Specification
Loss on drying	≤12.0%	Specification
Residue on ignition	≤0.1%	Specification
Heavy metals	Pb ≤3 · As ≤2 · Cd ≤1 · Hg ≤0.1 mg/kg	Specification
Microbiology	APC ≤1,000 cfu/g · yeast and mould ≤100 cfu/g · E. coli and Salmonella absent	Specification
Mesh	80 or 200 mesh	Specification
Marker set	Creatine (99.0–101.0%), creatinine ≤100 ppm	Identity / ratio
Appearance	White crystalline powder	Visual
Solubility	Soluble in water; the monohydrate is the stable crystalline form.	Matrix dependent
Standard packaging	1 kg foil pouch · 25 kg fiber drum	Food-grade liner

APPLICATIONS

- Sports powders
- Capsules and tablets
- Powder sticks and drink mixes
- Functional beverages

AVAILABLE FORMS

- 80 mesh
- 200 mesh
- Micronized on request

WHAT TO CONFIRM BEFORE ORDERING

- Confirm the mesh and the flow; 80 mesh and 200 mesh behave differently in a stick pack and in a capsule.
- Ask for creatinine and dicyandiamide on the lot, not only the assay.
- Loss on drying for the monohydrate is high by design; a low LOD may mean a different hydrate or an over-dried lot.
- Micronized creatine is a physical form, not a higher grade; specify the particle size you need.

> **Indicative document.** This sheet describes the grade we can quote; it is not a batch COA and does not confirm a result for a specific lot. Final specification, contaminant limits and documentation are agreed in writing before the order. The form, hydrate state, ligand ratio and method are release parameters, not marketing descriptions.

DOCUMENTATION RELEASED WITH EACH LOT

DOCUMENT	CONTENT	SCOPE
Certificate of analysis	Assay, identity, physical parameters, contaminant panel and the release decision for the lot.	Batch-specific
Technical data sheet	Form, hydrate state, CAS, specification ranges, solubility, bulk density, storage and packing.	Product-level
Safety data sheet	Sixteen sections covering hazards, handling, storage, transport and emergency response.	Grade-specific
Allergen and GMO statements	Major allergens, gluten, animal-derived inputs and GMO status.	Batch-specific
Origin and traceability record	Manufacturing site and the link between the lot and the retained sample.	Batch-specific
Residual-solvent statement	The crystallisation system and the solvent class, where applicable.	Batch-specific

HOW TO REQUEST THIS GRADE

01 · BRIEF

Send the target specification, quantity, dosage form and destination market.

02 · COUNTER-SPEC

We confirm what can be matched and the documents available for the grade.

03 · SAMPLE & QUOTE

A sample with its own COA, followed by packing, lead time and terms in writing.

No claim is made here. This sheet does not claim a therapeutic effect, a product certification or a regulatory approval. Health claims belong to the brand that makes them and to the market that authorises them.

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