ZHONGYAOTECH
XINGTAI ZHONGYAO CHEMICAL

PRODUCT BROCHURE
2026 / 01

REACTION GRADE

MgO for Magnesium Stearate.

Reactive magnesia for the direct neutralisation route — 99 % conversion in 2–3 hours with free MgO held below the pharmacopoeial limit.

MGO	FE	CL^-	YIELD
≥ 98 %	≤ 0.01 %	≤ 0.05 %	≥ 99 %

The reaction is simple.
The control is not —
activity and iron decide
whether it passes USP.

20–60 s

CITRIC ACID ACTIVITY

The window that keeps the batch controllable.

≥99%

CONVERSION

On stearic acid, at 110–130 °C.

≤0.01%

IRON

Controls colour and EP compliance.

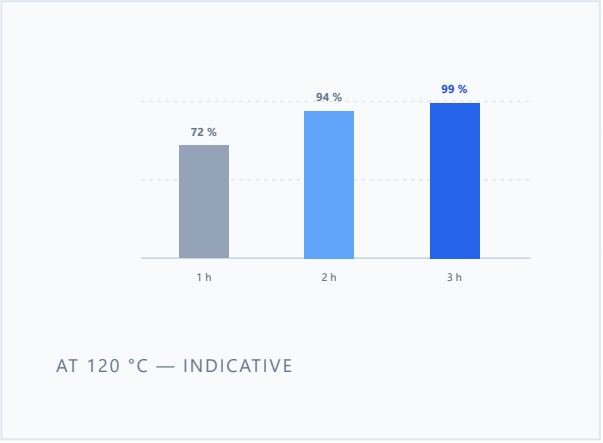
01 — MECHANISM

A heterogeneous reaction you can steer.

Stearic acid melts first; the oxide is consumed from the particle surface inward. Activity and particle size therefore control the rate as much as temperature does.

Too fast and the batch lumps; too slow and the cycle doubles. The window is narrow, which is why the grade is specified rather than bought generically.

Compare. We can supply against a target acid value and free MgO limit rather than a generic powder specification.



AT 120 °C — INDICATIVE

PROCESS

Mixing → Cure → Service

Conversion vs time — At 120 °C — indicative

ACTIVITY	FE	CL⁻
20–60 s	**≤ 0.01 %**	**≤ 0.05 %**
vs 120–160 s	vs ≤ 0.1 %	vs ≤ 0.2 %

02 — SPECIFICATION

Controlled batch to batch.

Parameter	Standard value	Method
MgO Content	**≥ 98.0%**	Batch COA
Fe	**≤ 0.01%**	Batch COA
Reaction Efficiency	**High**	Batch COA
Cl Content	**≤ 0.05%**	Batch COA

Process support

A one-page process note covering charge order, endpoint determination and vacuum stripping is supplied with trial batches.

SUPPLY

Packaging	**25 / 1 000 kg**
Minimum order	**1 t**
Lead time	**3–7 days**
Grade code	**MgO-Stearate**

CAS 1309-48-4 · Batch COA with every shipment. TDS and SDS on request.

INCOMING

Ore assay

Every lot screened for Fe, Ca, Si before calcination.

IN PROCESS

Activity + LOI

Sampled during production against the batch target.

BEFORE SHIPMENT

Full COA

Complete release testing, third-party reports on request.

03 — APPLICATIONS

Where it is specified.



01

Excipient synthesis

USP / EP grade



02

Technical stearate

Lubricant and mould release



03

Pharmaceutical

Tablet lubricant



04

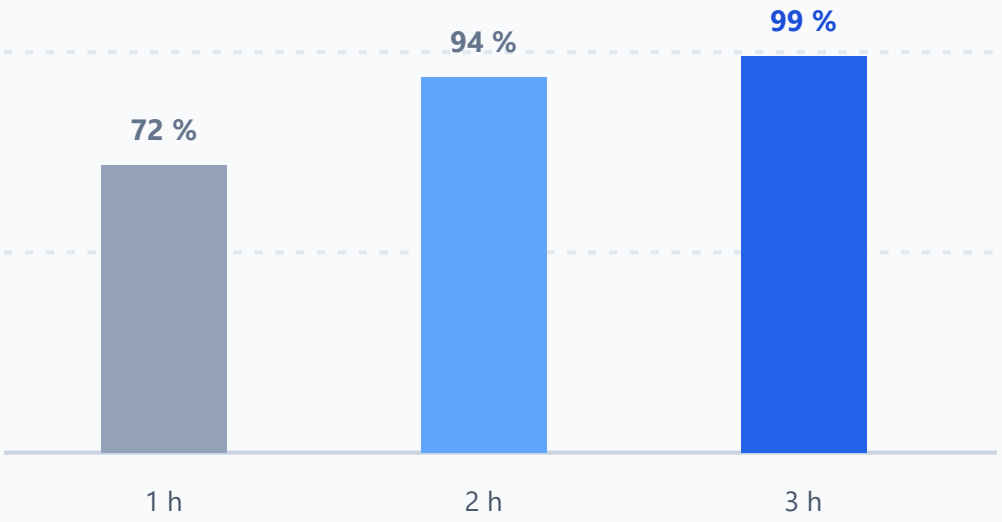
Reaction support

Batch troubleshooting

Dosage and loading figures are starting points for formulation trials. Final performance depends on the complete compound and test conditions.

04 — PERFORMANCE

Loading against performance.



AT 120 °C — INDICATIVE

Property	This grade	Standard MgO
Activity	**20–60 s**	120–160 s
Fe	**≤ 0.01 %**	≤ 0.1 %
Cl^-	**≤ 0.05 %**	≤ 0.2 %
Use	**Stearate synthesis**	General

PACKAGING

25 kg PE-lined PP woven bag, palletised on request.

1 000 kg jumbo bag for bulk compounding lines.

LOGISTICS

20' FCL load	**20–24 t**
Port of loading	**Tianjin / Qingdao**
Incoterms	**FOB / CIF / CFR**
HS code	**2519.90**

05 — SUPPLY

Batch traceable. Documented every time.

Every shipment carries a batch-specific COA. TDS, SDS and REACH statements are issued on request. Production is ISO 9001:2015 certified.

50,000 t
ANNUAL CAPACITY

50+
EXPORT COUNTRIES

1 t
MINIMUM ORDER

EMAIL
info@zhongyaochemical.com

TEL / WHATSAPP
+86 133 6372 1293

FACTORY
Luoluo Town, Xingtai, Hebei, China

WEBSITE
www.zhongyaochemical.com

Specifications are typical values and do not constitute a batch release certificate. Confirm acceptance criteria against the batch COA and the TDS in force at the time of order.

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