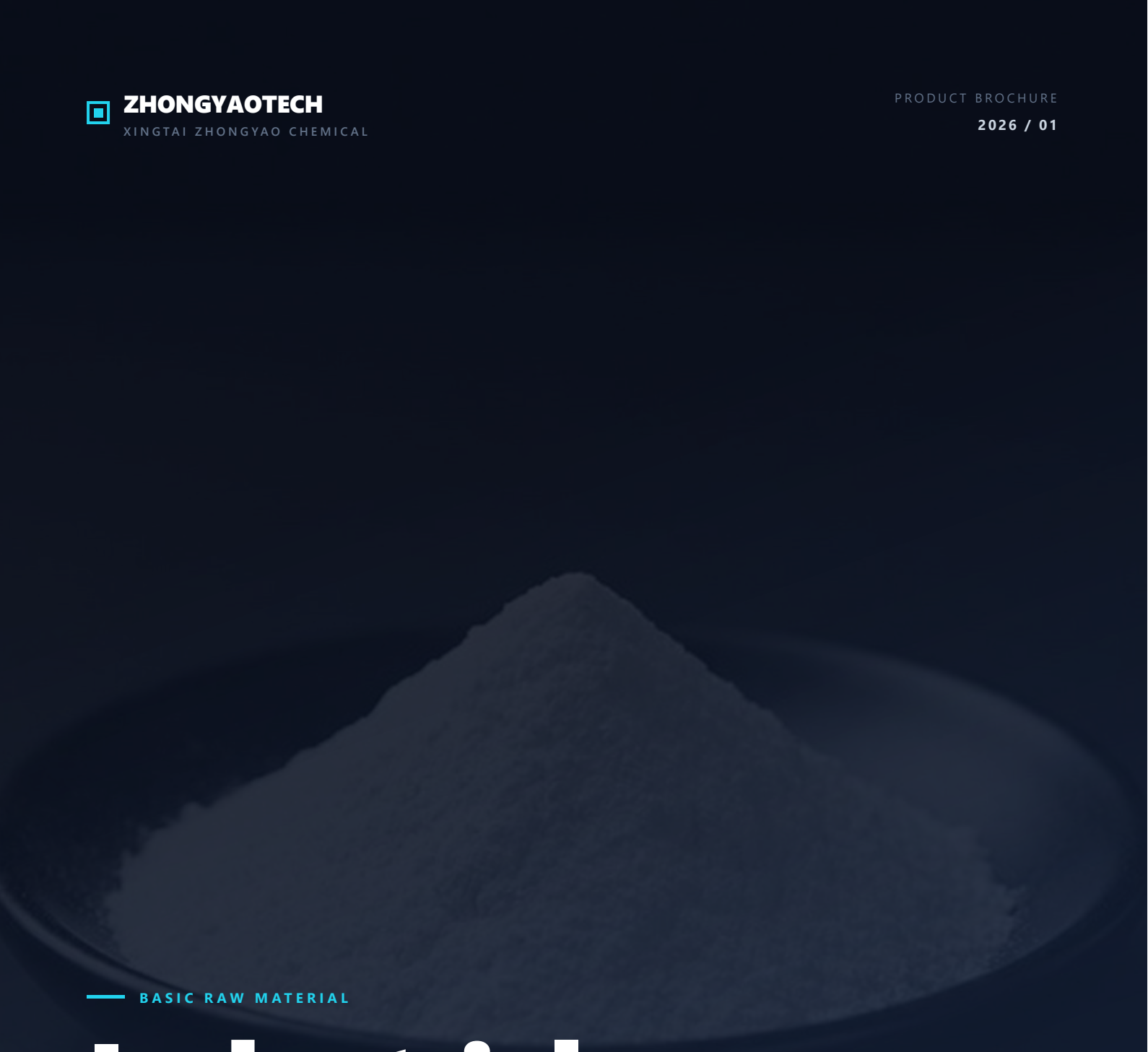
ZHONGYAOTECH
XINGTAI ZHONGYAO CHEMICAL

PRODUCT BROCHURE
2026 / 01



BASIC RAW MATERIAL

Industrial Magnesium Oxide.

The workhorse grade for flue gas desulfurization, magnesium salt synthesis and magnesia cement — 95–98 % SO_2 removal at a cost limestone cannot match.

MGO	ACTIVITY	MESH	CAS
≥ 90 %	120–160 s	200–325	1309-48-4

Limestone needs a slurry plant. MgO needs a **silo** — and removes **more SO_2** with **less sludge**.

95–98%

DESULFURIZATION

SO_2 removal efficiency against 90–95 % for limestone.

6.0–6.5

OPERATING PH

Below the scaling threshold, so no gypsum build-up on nozzles.

80%

CHINA RESERVES

Magnesite supply within one province of the plant.

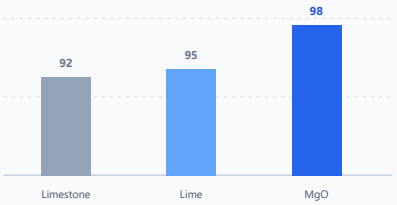
01 — MECHANISM

A base that behaves predictably in water.

Magnesium oxide hydrates in the slurry to $Mg(OH)_2$, which neutralises acidic gas far faster than limestone dissolution. The reaction product, magnesium sulfite, is soluble — it leaves the system instead of forming scale.

The same basicity drives magnesium salt synthesis: MgO is the precursor for magnesium sulfate, nitrate and chloride, and the binder in Sorel cement.

Compare. Compared with caustic soda, MgO is cheaper per neutralising equivalent and far safer to store and handle.



SO_2 REMOVAL BY REAGENT — INDICATIVE

PROCESS

Mixing → Cure → Service

Desulfurization efficiency — SO_2 removal by reagent — indicative

SO_2 REMOVAL
95–98 %
vs 90–95 %

SLUDGE PRODUCED
Low
vs High

SCALING RISK
Low at pH 6.0–6.5
vs High

02 — SPECIFICATION

Controlled batch to batch.

Parameter	Standard value	Method
MgO Content	**≥ 90.0%**	Batch COA
CaO Content	**≤ 1.5%**	Batch COA
LOI (Loss on Ignition)	**≤ 8.0%**	Batch COA
Activity (Citric Acid)	**120-160 sec**	Batch COA
Mesh Size	**200-325 mesh**	Batch COA

Handling

Supplied as a fine powder in 25 kg bags or 1 000 kg jumbo bags. Store dry; the material carbonates slowly in humid air, so reseal opened bags.

SUPPLY

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

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

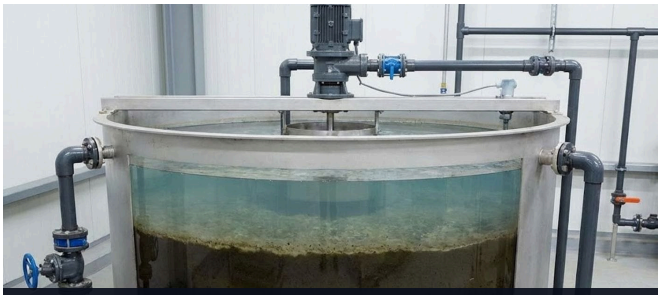
Where it is specified.



01

Flue gas desulfurization

Boiler and sinter plant SO_2 control



02

Wastewater neutralisation

pH correction and metal precipitation



03

Magnesium salt synthesis

Sulfate, nitrate, chloride



04

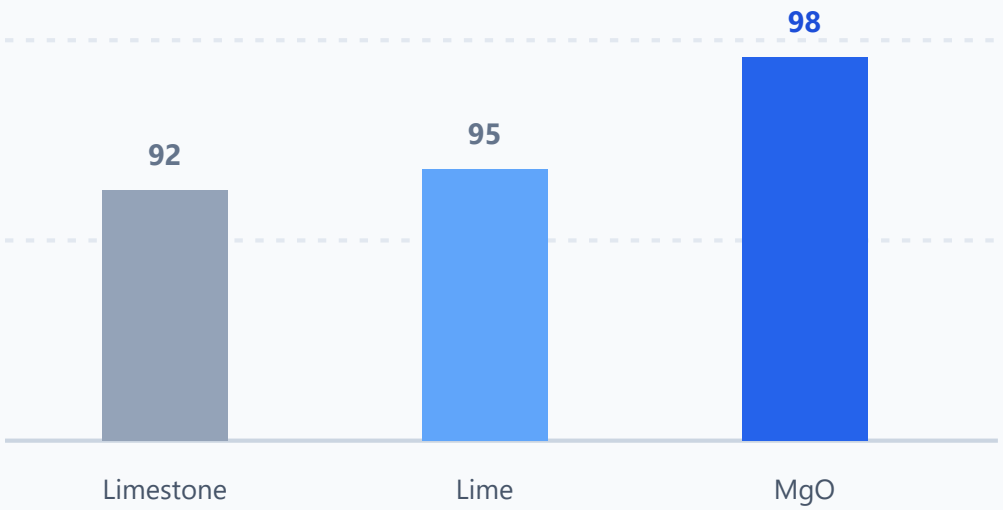
Magnesia cement

Sorel cement and floor compounds

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.



SO_2 REMOVAL BY REAGENT — INDICATIVE

Property	MgO	Limestone
SO_2 removal	**95–98 %**	90–95 %
Sludge produced	**Low**	High
Scaling risk	**Low at pH 6.0–6.5**	High
Storage	**Dry silo**	Slurry plant

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

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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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