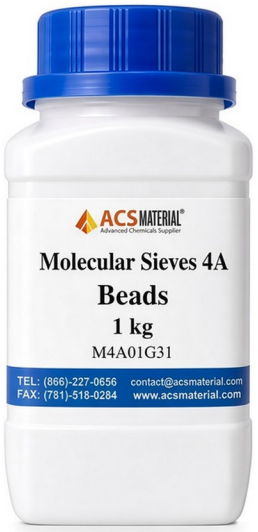
TECHNICAL DATA SHEET

Molecular Sieves 4A

Beads (spherical) · Type A: 4–8 mesh · Type B: 8–12 mesh · pore size ~4 Å · 1 kg



ACS Material Molecular Sieves 4A — Representative Packaging

ACS Material Molecular Sieves 4A, Beads, 1 kg (M4A01G31). Image shown for reference; label and packaging may vary.

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SECTION I

Product Overview

ACS Material Molecular Sieves 4A (Zeolite 4A) is a microporous sodium aluminosilicate molecular sieve with a pore size of ~4 Å and a SiO_2/Al_2O_3 ratio of ≈ 2. Its chemical formula is $Na_2O \bullet Al_2O_3 \bullet 2\ SiO_2 \bullet 9/2\ H_2O$.

It is supplied as spherical beads in two sizes: Type A, 4–8 mesh (3.0–5.0 mm), and Type B, 8–12 mesh (1.5–2.5 mm).

SECTION II

Core Advantages

- **Pore size** — ~4 Å.
- **Low loss on ignition** — ≤1.50 wt.% at 575 °C, 1 h.
- **Spherical beads** — 3.0–5.0 mm or 1.5–2.5 mm.
- **Static water adsorption** — ≥21 wt.% at RH 50%, 25 °C.
- **Low abrasion** — ≤0.1 wt.%.
- **Two sizes** — Type A 4–8 mesh; Type B 8–12 mesh.

SECTION III

Specifications

Technical data

Specifications	
Product name	Molecular Sieve 4A; 4A Molecular Sieve; Zeolite 4A
Brand	ACS Material
Chemical formula	$Na_2O \bullet Al_2O_3 \bullet 2\ SiO_2 \bullet 9/2\ H_2O$
Silica-alumina ratio	$SiO_2/Al_2O_3 \approx 2$
Pore size	~4 Å
CAS No.	70955-01-0

Characterizations by type

Characterizations	Type A	Type B
Appearance	Beads (spherical)	Beads (spherical)
Diameter (mesh / mm)	4–8 / 3.0–5.0	8–12 / 1.5–2.5
Static water adsorption (wt.%), RH 50%, 25 °C	≥21	≥21
Loss on ignition (wt.%), 575 °C, 1 h	≤1.50	≤1.50
Bulk density (g/mL)	≥0.66	≥0.66
Abrasion (wt.%)	≤0.1	≤0.1
Compressive strength (N)	≥65	≥40
Granularity (%)	≥97	≥97

Ordering information

Type	Package	Product No.
Type A: 4–8 mesh	1 kg	M4A01G31
Type B: 8–12 mesh	1 kg	M4A02G31

SECTION IV

Applications

1) Polyester additives.
2) Sewage treatment.
3) Metallurgical industry.
4) Agriculture: soil amendments.
5) Medicine: silver-loaded zeolite antibacterial agent.
6) Petrochemical industry: catalysts, desiccants and adsorbents.

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