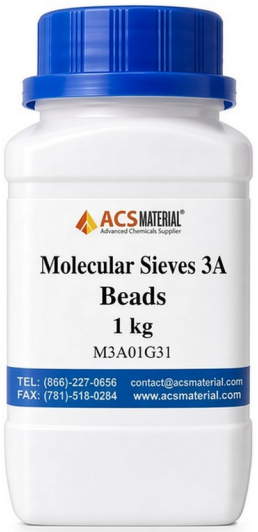
TECHNICAL DATA SHEET

Molecular Sieves 3A

Beads (spherical) · Type A: 4–8 mesh · Type B: 8–12 mesh · pore size ~3 Å · 1 kg



ACS Material Molecular Sieves 3A — Representative Packaging

ACS Material Molecular Sieves 3A, Beads, 1 kg (M3A01G31). Image shown for reference; label and packaging may vary.

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SECTION I

Product Overview

ACS Material Molecular Sieves 3A (Zeolite 3A) is a microporous potassium sodium aluminosilicate molecular sieve with a pore size of ~3 Å and a SiO_2/Al_2O_3 ratio of ≈ 2. The representative formula of the hydrated zeolite phase is 2/3 K_2O • 1/3 Na_2O • Al_2O_3 • 2 SiO_2 • 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** — ~3 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** — ≥19 wt.% at RH 50%, 25 °C.
- **Low abrasion** — ≤0.30 wt.%.
- **Two sizes** — Type A 4–8 mesh; Type B 8–12 mesh.

SECTION III

Specifications

Technical data

Specifications	
Product name	3A Molecular Sieve; Zeolite 3A
Brand	ACS Material
Chemical formula	2/3 K_2O • 1/3 Na_2O • Al_2O_3 • 2 SiO_2 • 9/2 H_2O
Silica-alumina ratio	SiO_2/Al_2O_3 ≈ 2
Pore size	~3 Å
CAS No. (zeolite component)	308080-99-1

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	≥19	≥19
Loss on ignition (wt.%), 575 °C, 1 h	≤1.50	≤1.50
Bulk density (g/mL)	≥0.65	≥0.65
Abrasion (wt.%)	≤0.30	≤0.30
Compressive strength (N)	≥70	≥30
Granularity (%)	≥97	≥97

Ordering information

Type	Package	Product No.
Type A: 4–8 mesh	1 kg	M3A01G31
Type B: 8–12 mesh	1 kg	M3A02G31

SECTION IV

Applications

1) Air drying.
2) Drying of various liquids, such as ethanol.
3) Drying of refrigerant.
4) Drying of natural gas and methane gas.
5) Drying of unsaturated hydrocarbons and cracking gas, such as ethylene, acetylene, propylene and butadiene.

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