

Barium Sulfate

barium sulphate | CAS 7727-43-7

Product identification

Product name	Barium Sulfate
Chemical name	Barium sulfate / barium sulphate
CAS number	7727-43-7
EC number	231-784-4
PubChem CID	24414
Molecular formula	BaSO ₄
Molecular weight	233.39 g/mol
InChIKey	TZCXTZWJZNENPQ-UHFFFAOYSA-L
SMILES	[O-]S(=O)(=O)[O-].[Ba+2]
Material type	Analytical chemical / laboratory reagent

Material description

Barium Sulfate is an inorganic barium salt supplied by Rexar as an analytical chemical for laboratory and technical applications. It is typically a white to yellowish, odourless powder or crystalline solid and is practically insoluble in water.

Intended use

For laboratory, analytical, chemical, reagent-preparation, quality-control and research applications. Not for human or animal consumption. Not intended for food, supplement, cosmetic, medical, diagnostic or therapeutic use.

Reference characteristics

Structural class	Inorganic metal sulfate
Typical physical form	White to yellowish powder or small crystals
Density	Approximately 4.25-4.5 g/cm ³
Water solubility	Practically insoluble
Melting / decomposition	Approximately 1580 °C, with decomposition
Storage guidance	Keep tightly closed and dry. Avoid unnecessary dust generation.

Analytical use and traceability

Lot-specific purity, assay, impurities and analytical acceptance criteria must be taken from the applicable supplier documentation or certificate of analysis.

Safety note

ECHA reports no hazards classified from REACH registration data for barium sulfate, and PubChem lists the substance as not classified in its laboratory chemical safety summary. Normal laboratory dust-control and hygiene measures remain appropriate.

Identity verification note

Identity verified against ECHA and PubChem CID 24414: CAS 7727-43-7, EC 231-784-4, BaSO₄, 233.39 g/mol and InChIKey TZCXTZWJZNENPQ-UHFFFAOYSA-L.

Document control

Document	Rexar Technical Compound Datasheet
Revision	10 September 2026
Status	Reference information; not a certificate of analysis

Disclaimer

This document is provided for chemical identification and laboratory reference purposes. It does not certify batch purity or replace lot-specific analytical or safety documentation.