

Iron(III) Nitrate Nonahydrate

ferric nitrate nonahydrate | CAS 7782-61-8

Product identification

Product name	Iron(III) Nitrate Nonahydrate
Chemical name	Iron(III) nitrate nonahydrate / ferric nitrate nonahydrate
CAS number	7782-61-8
EC number	616-509-1
PubChem CID	16211566
Molecular formula	Fe(NO ₃) ₃ ·9H ₂ O
Molecular weight	404.00 g/mol
InChIKey	SZQUEWJRBJDHSM-UHFFFAOYSA-N
SMILES	[N+](=O)([O-])[O-].[N+](=O)([O-])[O-].[N+](=O)([O-])[O-].O.O.O.O.O.O.O.O.O.[Fe+3]
Material type	Analytical chemical / laboratory reagent

Material description

Iron(III) Nitrate Nonahydrate is a hydrated inorganic iron(III) nitrate salt supplied by Rexar as an analytical chemical for laboratory and technical applications. The nonahydrate is typically encountered as pale violet to colourless crystalline material and is readily soluble 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	Hydrated inorganic iron(III) nitrate
Typical physical form	Pale violet / colourless crystalline solid
Water solubility	Highly soluble in water
Thermal behaviour	Melts/decomposes on heating; hydrate loses water
Storage guidance	Keep tightly closed, cool and dry. Keep away from combustible/reducing materials and other incompatible substances.

Analytical use and traceability

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

Safety note

Iron(III) nitrate nonahydrate is an oxidising nitrate salt. Public supplier SDSs commonly classify it as Oxidising Solid Category 3 (H272) and as causing serious eye damage (H318), with additional classifications varying by supplier/grade. The exact supplier SDS for the supplied material should control handling and transport.

Identity verification note

Identity verified against PubChem CID 16211566: CAS 7782-61-8, EC 616-509-1, Fe(NO₃)₃·9H₂O, 404.00 g/mol and InChIKey SZQUEWJRBJDHSM-UHFFFAOYSA-N.

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.