

Safety Data Sheet

Iron(III) Nitrate Nonahydrate

Analytical chemical / laboratory reagent

SECTION 1: Identification of the substance and of the company

Product identifier	Iron(III) Nitrate Nonahydrate
Chemical name	Iron(III) nitrate nonahydrate / ferric nitrate nonahydrate
CAS number	7782-61-8
EC number	616-509-1
Relevant identified uses	Laboratory reagent; analytical and technical applications
Uses advised against	Human/animal consumption; food, supplement, cosmetic, medical, diagnostic or therapeutic use
Supplier	Rexar, Genestetstraat 3, 2394 XK Hazerswoude-Rijndijk, Netherlands
Contact	info@rexar.nl www.rexar.nl

SECTION 2: Hazards identification

Reference classification: Oxidising Solid Category 3 and Serious Eye Damage Category 1 are commonly reported in current supplier SDSs for iron(III) nitrate nonahydrate; additional classifications can vary by grade/supplier.

Signal word: Danger.

Key hazard statements: H272 May intensify fire; oxidiser. H318 Causes serious eye damage.

Precautions: Keep away from heat and combustible/reducing materials. Wear suitable gloves and eye/face protection. Confirm the exact supplier/grade SDS before handling.

SECTION 3: Composition / information on ingredients

Substance	Iron(III) nitrate nonahydrate
CAS number	7782-61-8
EC number	616-509-1
PubChem CID	16211566
Molecular formula	Fe(NO3)3·9H2O
Molecular weight	404.00 g/mol
Purity	Lot-specific; refer to supplier documentation / COA

SECTION 4: First-aid measures

Inhalation: Move to fresh air and seek medical advice if symptoms occur.

Skin: Remove contaminated clothing and rinse skin thoroughly with water.

Eyes: Rinse cautiously with water for several minutes; remove contact lenses if easy to do. Continue rinsing and obtain prompt medical attention.

Ingestion: Rinse mouth and seek medical advice.

SECTION 5: Fire-fighting measures

Oxidising material; may intensify fire involving combustible substances. Use extinguishing media appropriate to the surrounding fire. Heating/decomposition may generate nitrogen oxides. Fire-fighters should use suitable protective equipment and self-contained breathing apparatus where appropriate.

SECTION 6: Accidental release measures

Keep combustible materials away. Avoid dust and contact. Wear suitable gloves and eye/face protection. Collect mechanically into a compatible labelled container and prevent uncontrolled environmental release.

SECTION 7: Handling and storage

Handle using good laboratory practice. Avoid breathing dust and eye contact. Keep away from heat, combustible substances, reducing agents and incompatible materials. Keep container tightly closed, cool and dry.

SECTION 8: Exposure controls / personal protection

Use adequate ventilation. Wear suitable laboratory gloves, protective clothing and chemical splash goggles/face protection. Where dust cannot otherwise be controlled, use appropriate particulate respiratory protection.

SECTION 9: Physical and chemical properties

Appearance	Pale violet / colourless crystalline solid
Molecular formula	$\text{Fe}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$
Molecular weight	404.00 g/mol
Water solubility	Highly soluble
Oxidising properties	Oxidising nitrate salt
Thermal behaviour	Hydrate loses water and decomposes on heating

SECTION 10: Stability and reactivity

Stable under recommended storage conditions but is an oxidising material. Avoid combustible and reducing substances, excessive heat and other incompatible materials. Thermal decomposition may release nitrogen oxides.

SECTION 11: Toxicological information

Can cause serious eye damage. Dust or solutions may irritate the respiratory tract and skin. Additional toxicological classifications vary among supplier SDSs; consult the exact grade-specific SDS.

SECTION 12: Ecological information

Avoid uncontrolled environmental release. Refer to current supplier and regulatory documentation for grade-specific ecotoxicological information.

SECTION 13: Disposal considerations

Dispose through an authorised chemical-waste route. Keep waste separate from combustible/reducing materials and follow applicable oxidiser-waste procedures. Do not discharge to drains.

SECTION 14: Transport information

Oxidising-solid dangerous-goods transport provisions may apply. Verify UN number, packing group and mode-specific classification against the exact supplier SDS, concentration, package and current carrier rules before shipment.

SECTION 15: Regulatory information

CAS 7782-61-8 is present in the ECHA C&L; Inventory as the nonahydrate form associated with iron trinitrate. Product-specific obligations depend on grade, quantity, jurisdiction and use.

SECTION 16: Other information

Revision date: 10 September 2026.

Identity reference: PubChem CID 16211566; CAS 7782-61-8.

Safety basis: ECHA substance information and current public supplier SDS information.

This SDS is a general laboratory safety reference and is not a certificate of analysis.