

SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-10

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Iron(III) nitrate nonahydrate
Product Number : I434042
Brand : aladdin
CAS-No. : 7782-61-8

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION
Address : 14078 Meridian Parkway,
Riverside, CA. 92518
Telephone : +1 (833) 552-7181
Fax : no data available

1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300
CHEMTREC®, Outside the USA :

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Oxidizing solids Category 3

Skin Corrosion/Irritation Category 2

Serious Eye Damage/Eye Irritation Category 2

Specific target organ toxicity (single exposure) Category 3

Target Organs - Respiratory system.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H272	May intensify fire; oxidizer
H303	May be harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

Precautionary statement(s)

P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P220	Keep away from clothing and other combustible materials.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and ...] thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use ... to extinguish.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Iron(III) nitrate nonahydrate
Formula	: FeN3O9·9H2O
Molecular weight	: 404.00
CAS No.	: 7782-61-8
EC-NO.	: 233-899-5

Component	Classification	Concentration
Iron(III) nitrate nonahydrate		

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Component	Classification	Concentration
	no data available	Ph.Eur., Suitable for Analysis, ACS, Premium pure

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

Remove to fresh air. Get medical attention. If not breathing, give artificial respiration.

In case of skin contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

If swallowed

Do NOT induce vomiting. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

nitrogen oxide iron oxide Non combustible. Surrounding fire sources may cause the release of hazardous vapors

5.3 Advice for firefighters

wear self-contained breathing and full protective gear.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

Phone: +1 (833) 552-7181 Email: QualityAssurance@aladdinsci.com Website: <https://www.aladdinsci.com/>

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6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes or clothing.

6.2 Environmental precautions

Avoid release to the environment. See Section 12 for additional Ecological Information.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Do not let this chemical enter the environment. Avoid dust formation.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

7.2 Conditions for safe storage, including any incompatibilities

Seal the container in a dry, cool, and well ventilated place. Sensitive to air, easy to absorb moisture, and stored with argon

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use

in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU)2016/425 and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN(EU).

Control of environmental exposure

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	form: Powder or Crystal or Chunks color: Grey to Purple
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	47.2°C
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	1.68g/cm ³ at 20°C
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

9.2 Other safety information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Risk of explosion with: dimethyl sulfoxide Reducing agents increased reactivity with: organic combustible substances
Powdered metals

10.4 Conditions to avoid

Avoid dust formation. Incompatible products. Excess heat. Combustible material. Exposure to moisture.

10.5 Incompatible materials

Strong oxidizing agents, Combustible material, Organic materials, Strong reducing agents

10.6 Hazardous decomposition products

Nitrogen oxides (NO_x)

SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Acute toxicity

Skin corrosion/irritation

Remarks: Causes skin burns. (ECHA) (anhydrous substance)

Serious eye damage/eye irritation

Remarks: Causes serious eye damage.(ECHA) (anhydrous substance)

Respiratory or skin sensitisation

Local lymph node assay (LLNA) - Mouse Result: negative (OECD Test Guideline 429) Remarks: (anhydrous substance)
The value is given in analogy to the following substances: iron(III) nitrate

Germ cell mutagenicity

Test Type: Micronucleus test Species: Mouse Cell type: Intraduodenal Application Route: Oral Result: negative
Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Ferrous sulfate heptahydrate

Carcinogenicity

no data available

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

Respiratory system

Specific target organ toxicity - repeated exposure

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no data available

Aspiration hazard

no data available

Additional Information

SECTION 12: Ecological information

12.1 Toxicity

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 1466

Packing group: III

Class: 5.1

Proper shipping name: Ferric nitrate

Reportable Quantity(RQ): no data
availablePoison Inhalation Hazard: no data
available

Environmental Hazards: no data available

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IMDG

UN number: 1466

Packing group: III

EMS-No: no data available

Proper shipping name: Ferric nitrate

IATA

UN number: 1466

Packing group: III

Class: 5.1

Proper shipping name: Ferric nitrate

SECTION 15: Regulatory information

Please note that waste disposal should also meet local regulations. If applicable, the chemical meets the requirements of the Regulations on the Safety Management of Hazardous Chemicals (adopted by the State Council on December 4, 2013).

SECTION 16: Other information**Prepared By**

Regulatory Affairs

ALADDIN SCIENTIFIC CORPORATION

Email: QualityAssurance@aladdinsci.com

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Revision Summary

SDS sections updated v1

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