

SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-22

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

1.1 Product identifiers

Product name : Iron(II) chloride
Product Number : I433954
Brand : aladdin
CAS-No. : 7758-94-3

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)

Acute oral toxicity Category 4

Serious Eye Damage/Eye Irritation Category 1

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H290

May be corrosive to metals

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H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H412	Harmful to aquatic life with long lasting effects
Precautionary statement(s)	
P234	Keep only in original container.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and ...] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P321	Specific treatment (see ... on this label).
P330	Rinse mouth.
P390	Absorb spillage to prevent material damage.
P302+P352	IF ON SKIN: wash with plenty of water.
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P406	Store in corrosive resistant/... container with a resistant inner liner.
P501	Dispose of contents/container to an approved waste disposal plant.
P264+P265	Wash hands [and ...] thoroughly after handling. Do not touch eyes.
P301+P317	IF SWALLOWED: Get medical help.
P305+P354+P338	IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P317	Get emergency medical help.
P332+P317	If skin irritation occurs: Get medical help.

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 dichloride, Ferrous chloride
Formula	: FeCl ₂
Molecular weight	: 126.75
CAS No.	: 7758-94-3
EC-NO.	: 231-843-4

Component	Classification	Concentration
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Component	Classification	Concentration
Iron(II) chloride	no data available	≥98%

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. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

In case of skin contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.

If swallowed

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

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, Foam, Carbon dioxide (CO₂), Dry powder

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

no data available

5.3 Advice for firefighters

wear self-contained breathing and full protective gear.

5.4 Further information

Use water spray to cool unopened containers.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed Up containers for disposal.

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. Avoid dust formation. Avoid contact with skin, eyes or 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 humidity and air, store with argon filling

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

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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: Solid color: Beige to Tan
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	677°C
f) Initial boiling point and boiling range	1023°C
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	no data available
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

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10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Excess heat. Avoid dust formation. Exposure to moist air or water. Exposure to air.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors, Hydrogenchloride gas

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

LD50 Oral - Rat - Female -500 mg/kg

(OECD Testing Guideline 423)

LC50 inhalation - rat - male -5 minutes -8.3 mg/l - aerosol

remarks: (ECHA)

LD50 transdermal - rat - male and female ->2000 mg/kg

(OECD Testing Guideline 402)

Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation -4 hours (OECD Testing Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit Result: Irreversible impact on the eyes (OECD Testing Guideline 405)

Respiratory or skin sensitisation

Maximum Response Test - Guinea Pig Result: Negative (OECD Testing Guideline 406)

Germ cell mutagenicity

Test type: Ames test Testing system: Escherichia coli/Salmonella typhimurium Metabolic activation: with or without metabolic activation effect method: OECD Testing Guidelines 471 Result: Negative Test type: In vitro mammalian cell gene mutation assay Testing System: Mouse Lymphoma Cells Metabolic activation: with or without metabolic activation effect method: OECD Testing Guidelines 476 Result: Negative Test type: In vivo micronucleus test Species: Mouse Cell type: Bone marrow Route of infection: Intraperitoneal injection method: OECD Testing Guidelines 474 Result: Negative

Carcinogenicity

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no data available

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

Repeated toxicity - rat - male and female - oral - level with no observed harmful effects -125 mg/kg

Repeated toxicity - Rabbit - Male - Inhalation - February

remarks: (ECHA)

Registration of Toxic Effects of Chemical Substances: NO5400000

Cough, shortness of breath, headache, nausea, vomiting

To our knowledge, the chemical, physical, and toxic properties of this substance have not been fully studied.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to bacteria

Remarks: (Compared with similar products)

Corresponding values have been specified for the following substances: aluminum chloride (iii)
(Ferrous chloride)

Toxicity to fish (chronic toxicity) semi static test NOEC - *Salvelinus fontinalis* (American salmon) -0.024 mg/l -60 days

Remarks: (Compared with similar products)

(ECHA)

Corresponding values have been specified for the following substances: aluminum

12.2 Persistence and degradability

Cyprinus carpio -28 days (Ferrous chloride) Bioaccumulation Factor (BCF): 2-2.9 (OECD Testing Guidelines 305)

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

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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: UN3260

Packing group: II

Class: 8

Proper shipping name: Inorganic acidic
corrosive solid, unspecified (ferrous
chloride)

Reportable Quantity(RQ): no data
available

Poison Inhalation Hazard: no data
available

Environmental Hazards: no

IMDG

UN number: UN3260

Packing group: II

EMS-No: no data available

Proper shipping name: Inorganic acidic corrosive solid, unspecified (ferrous chloride)

IATA

UN number: UN3260

Packing group: II

Class: 8

Proper shipping name: Inorganic acidic corrosive solid, unspecified (ferrous chloride)

SECTION 15: Regulatory information

Applicable regulations

code of occupational disease prevention of prc

Regulations on the Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals: Listed

Other regulations

Please note that waste disposal should also comply with local regulations.

SECTION 16: Other information

Prepared By

Regulatory Affairs

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