ALADDIN SCIENTIFIC CORPORATION
14078 Meridian Parkway, Riverside, CA. 92518

SAFETY DATA SHEET

Version: v1
Revision Date: 2024-01-19
Print Date: 2024-01-25

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

1.1 Product identifiers

Product name	: Iron
Product Number	: I434713
Brand	: aladdin
CAS-No.	: 7439-89-6

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)
Flammable solid (Class 2), H228
Autothermic substances and mixtures (Class 2), H252

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word Warning

Hazard statement(s)

H228	Flammable solid
H252	Self-heating in large quantities; may catch fire

Precautionary statement(s)

P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/.../] equipment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P235+P410	Keep cool. Protect from sunlight.
P370+P378	In case of fire: Use ... to extinguish.
P407	Maintain air gap between stacks or pallets.
P420	Store separately.
P403+P235	Store in a well-ventilated place. Keep cool.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Iron
Formula	: Fe
Molecular weight	: 55.85
CAS No.	: 7439-89-6
EC-NO.	: 231-096-4

Component	Classification	Concentration
Iron		
	no data available	for analysis reduced, particle size 10 µm , Premium-Grade Reagents

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 breathing is difficult, give oxygen. Get medical attention.
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
RinseImmediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

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

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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours.Avoid contacting with skin and eye. Use personal protective equipment.Wear chemical impermeable gloves. Ensure adequate ventilation.Remove all sources of ignition. Evacuate personnel to safe areas.Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Operators should be specially trained and strictly abide by the operating procedures. Operation and disposal should be carried out in a place with local ventilation or general ventilation facilities. Avoid eye and skin contact and avoid breathing vapor. See Section 8 for personal protective measures. Keep away from fire and heat sources, and smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. If canning is required, the flow rate should be controlled, and there should be a grounding device to prevent the accumulation of static electricity. Avoid contact with incompatible substances such as oxidizing agents (see section 10 for incompatible substances). When handling, it should be lightly loaded and unloaded to prevent damage to packaging and containers. Empty containers may be harmful residues. Wash hands after use and prohibit eating or drinking in the workplace. Equipped with the corresponding variety and quantity of fire fighting equipment and leakage emer

7.2 Conditions for safe storage, including any incompatibilities

Room temperature storage

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	no data available
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	1535°C
f) Initial boiling point and boiling range	2750 °C
g) Flash point	21 °C
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	7.87g/cm3at 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

Intense reactions may occur with it: Amine compounds Oxidant Halogen halogen compounds Nitroyl compounds Nitrate fluorine oil hydrogen peroxide hydrogen sulfide acetaldehyde Hazardous gas generation or contact with the right item can produce harmful smoke: water acid There is an explosion risk associated with it: ammonium nitrate Ammonium persulfate potassium dichromate Perchlorate air Nitrate Peroxyformic acid Chloroacetic acid oil and water There may be a risk of fire or the generation of flammable gases or vapors in conjunction with it: peroxide Nitroyl compounds hydrogen sulfide Nitrogen dioxide hydrogen peroxide halogen oil and air

10.4 Conditions to avoid

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

10.5 Incompatible materials

strong acid

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral Rat 30000 mg/kg
Remarks: (RTECS)

Skin corrosion/irritation
no data available
Serious eye damage/eye irritation
no data available
Respiratory or skin sensitisation
no data available
Germ cell mutagenicity
no data available
Carcinogenicity
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

Excessive doses of iron compounds may have corrosive effects on the gastrointestinal mucosa, leading to gangrene, perforation, and ulcers. Symptoms may include upper abdominal pain, diarrhea, vomiting, nausea, and hemoptysis in the first few hours. After the symptoms disappear, the patient may experience metabolic acidosis, convulsions, and coma for a few hours or days. Further complications can develop into acute liver necrosis, leading to liver coma and death., Long term inhalation of iron (oxide smoke or dust) can cause pulmonary iron deposition. Pulmonary iron deposition can be considered as an early symptom of pneumoconiosis and generally does not cause typical physiological damage. It is under X-ray examination
Presents patchy pulmonary imaging.
To our knowledge, this chemical, physical, and toxic property has not been fully studied.

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
Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance.
Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

ALADDIN SCIENTIFIC CORPORATION
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DOT (US)

UN number: 3089	Packing group: III	Class: 4.1
Proper shipping name: METAL POWDER, FLAMMABLE, N.O.S.	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: no		

IMDG

UN number: 3089	Packing group: III	EMS-No: no data available
Proper shipping name: METAL POWDER, FLAMMABLE, N.O.S.		

IATA

UN number: 3089	Packing group: III	Class: 4.1
Proper shipping name: METAL POWDER, FLAMMABLE, N.O.S.		

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 16: Other information

Prepared By	Regulatory Affairs ALADDIN SCIENTIFIC CORPORATION Email: QualityAssurance@aladdinsci.com
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Disclaimer

 The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Aladdin Co. Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.