SAFETY DATA SHEET

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

1.1 Product identifiers

Product name	Iron Powder 40 Mesh, Atomized
CAS number	7439-89-6
Synonyms	No information available

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

Identified uses	Laboratory Chemicals

1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Flammable solids Category 1

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	Flammable solid
Precautionary statements	Mechanical impact may cause eye injury. Dust or fine particles generated during blasting or handling may irritate the eyes and respiratory tract. Prolonged or repeated exposure to high concentrations of airborne metallic dust should be avoided. Hot particles generated during grinding or blasting operations may cause burns or fire hazards under certain conditions.

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

No information available.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Iron, atomized	-	7439-89-6	Balance
Carbon	-	7440-44-0	≤ 1.20%
Silicon	-	7440-21-3	≤ 1.50%
Manganese	-	7439-96-5	≤ 1.50%
Chromium	-	7440-47-3	-

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Move the affected person to fresh air. If breathing difficulties, coughing or irritation persists, seek medical attention.
In case of skin contact	Wash skin with soap and water. For cuts or abrasions caused by mechanical impact, seek medical attention if necessary.
In case of eye contact	Immediately flush eyes with plenty of clean water for at least 15 minutes. Remove contact lenses if easy to do. Seek medical attention if irritation or injury persists.

If swallowed Rinse mouth with water. Do not induce vomiting. Seek medical advice if large quantities are swallowed or symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

None reasonably foreseeable.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use extinguishing media appropriate for the surrounding fire. For finely divided metallic dust generated during processing, use an extinguishing agent suitable for metal fires (Class D powder or dry sand).

Unsuitable extinguishing media Do not use water jets directly on burning metallic powder.

5.2 Specific hazards arising from the substance or mixture

Bulk steel shot is not readily combustible. Fine metallic dust generated during processing, blasting, or grinding operations may present a fire or explosion hazard under airborne concentration conditions.

5.3 Special protective equipment and precautions for firefighters

Firefighters should wear appropriate protective clothing and self-contained breathing apparatus (SCBA) when necessary.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No data available.
Lower No data available.

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
0	3	1	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid creating airborne dust. Wear suitable eye and respiratory protection where dust may be generated. Spilled steel shot can create a serious slipping hazard; sweep up promptly.

6.2 Environmental precautions

Prevent large quantities from entering drains, waterways or soil.

6.3 Methods and materials for containment and cleaning up

Collect spilled steel shot mechanically or by vacuum equipment suitable for metallic particles. Reuse or dispose of collected material according to applicable regulations.

6.4 Reference to other sections

No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid unnecessary generation of airborne dust.
Avoid contact with eyes and skin.
Use appropriate lifting and handling equipment for heavy bags or containers.
Maintain good industrial hygiene practices.
Wash hands before breaks and after work.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in a dry, cool and well-ventilated area.
Keep containers tightly closed and protected from moisture to prevent oxidation and rust formation.

Incompatibilities

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation and local exhaust ventilation where blasting, grinding, or other operations generate airborne dust.

Personal protective equipment

Eye/face protection

Safety glasses with side shields or appropriate goggles. During blasting operations, use suitable blasting helmet and face shield protection.

Skin protection

Protective industrial work gloves are recommended during handling and equipment maintenance.

Body Protection

Wear appropriate protective gloves and clothing to prevent skin exposure, as well as safety footwear.

Respiratory protection

When airborne dust concentrations may exceed applicable occupational exposure limits, use an appropriate particulate respirator approved for the relevant jurisdiction (e.g. NIOSH N95 / EN149 FFP2 or equivalent).

Control of environmental exposure

Handle in accordance with good industrial hygiene and safety practic

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Metallic gray
Odor	Odorless
Odor Threshold	No data available
pH	Not applicable
Melting Point/Range	Approximately 1,400–1,500 °C
Boiling Point/Range	Not determined
Evaporation Rate	No data available
Flammability (solid)	No data available
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Density	Approximately 7.0–7.8 g/cm3
Solubility	Insoluble in water

Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	Fe
Molecular Weight	55.84
VOC Content(%)	No information available
Oxidizing properties	Non-oxidizing

9.2 Other safety information No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity
Yes.

10.2 Chemical stability
Stable under normal ambient and anticipated storage and handling conditions.

10.3 Possibility of hazardous reactions
None known under normal industrial processing conditions.

10.4 Conditions to avoid
Avoid excessive heat, moisture and generation/accumulation of fine metallic dust.

10.5 Incompatible materials
Strong acids, strong oxidizing agents and other materials known to react with iron or steel.

10.6 Hazardous decomposition products
Hydrogen.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Iron Powder	30 g/kg (Rat)	-	-

Skin corrosion/irritation
Repeated contact may mechanical irritation or minor abrasion.

Serious eye damage/eye irritation

Dust generated during processing may cause mechanical irritation or injury.

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Iron Powder	7439-89-6	Not lised	Not lised	Not lised	Not lised	Not lised

Specific target organ toxicity - single exposure

None known.

Specific target organ toxicity - repeated exposure

None known.

Reproductive toxicity

No information available.

Chronic effects

Health effects depend on the composition and concentration of airborne dust generated during processing. Appropriate exposure controls should be implemented.

11.2 Additional Information

No information available.

SECTION 12: Ecological information

12.1 Toxicity

No specific ecological toxicity data are available for the product as supplied. Metallic steel particles in bulk form are generally considered inert in the aquatic environment.

12.2 Persistence and degradability

The metallic components are not biodegradable in the conventional sense.

12.3 Bio accumulative potential

No specific data available. Not expected to bioaccumulate.

12.4 Mobility in soil

The product is a solid metallic material and has limited mobility under normal conditions.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Where possible, unused or uncontaminated steel shot should be recovered and reused.
Dispose of contaminated material in accordance with local, national and applicable environmental regulations.
Do not discharge large quantities into drains, waterways, or sewers.

SECTION 14: Transport information

DOT (US)

UN Number	UN3089
Proper Shipping name	Metal powders, flammable, n.o.s.
Hazard Class	4.1
Packaging Group	III

IMDG

UN Number	UN3089
Proper Shipping name	Metal powders, flammable, n.o.s.
Hazard Class	4.1
Packaging Group	III

IATA

UN Number	UN3089
Proper Shipping name	Metal powders, flammable, n.o.s.
Hazard Class	4.1
Packaging Group	III

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not applicable.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous
Acute Health Hazard; Yes
Chronic Health Hazard; No
Fire Hazard; Yes
Sudden Release of Pressure Hazard; No
Reactive Hazard; Yes

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act
Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
Not listed.

US state regulations

US. Massachusetts RTK - Substance List
Not listed.

US. New Jersey Worker and Community Right-to-Know Act
Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

California Proposition 65
This product does not contain any Proposition 65 chemicals.

SECTION 16: Other information

Date of Issue: 11/2/2026

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.