



<a href="#">Ferrosilicon</a>	<a href="#">Pricing &gt;</a>
<a href="#">Iron Silicon Alloy Nanoparticles</a>	<a href="#">Pricing &gt;</a>
<a href="#">Iron Silicon Alloy Particles</a>	<a href="#">Pricing &gt;</a>
<a href="#">Iron Silicon Alloy Powder</a>	<a href="#">Pricing &gt;</a>

<b>Linear Formula</b>	Fe-Si
<b>Pubchem CID</b>	92027036
<b>MDL Number</b>	MFCD00016086
<b>EC No.</b>	617-088-7
<b>IUPAC Name</b>	silanidyldyneiron(1+)
<b>SMILES</b>	[Si-]#[Fe+]
<b>Inchl Identifier</b>	8049-17-0
<b>Inchl Key</b>	YSWDZWXHBYTMBR-UHFFFAOYSA-N
<b>Signal Word</b>	Warning
<b>Hazard Statements</b>	H228-H319-H335
<b>Hazard Codes</b>	Xi, F
<b>Precautionary Statements</b>	P210-P261-P280-P305+P351+P338-P405-P501
<b>Risk Codes</b>	R11 R36/37/38
<b>Safety Statements</b>	N/A
<b>Transport Information</b>	UN3089 4.1/PG III
<b>GHS Pictograms</b>	<a href="#">GHS02 Flame</a>  <a href="#">GHS07 Exclamation Point</a> 

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## SAFETY DATA SHEET

Date Accessed: 03/28/2024

Date Revised: 01/15/2022

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## SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #8049-17-0

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:  
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

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## SECTION 2. HAZARDS IDENTIFICATION

### 2.1 Classification Of The Substance Or Mixture

#### 2.1.1 Classification according to Regulation (EC) No. 1272/2008 (CLP)

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

The substance is not classified as hazardous according to the CLP regulation.

#### 2.1.2 Classification according to Directive 67/548/EEC & Directive 1999/45/EC – N/A

Information concerning particular hazards for human and environment:

The product does not have to be labelled due to the calculation procedure of the “General Classification guideline for preparations of the EU” in the latest valid version.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

### 2.2 Label Elements

#### 2.2.1 Label Elements According to Regulation (EC) No. 1272/2008 (CLP)

This product does not have a classification according to the CLP regulation.

The product is not classified as hazardous according to OSHA GHS regulations within the United States.

Hazard

Pictogram(s)  
Not regulated  
Signal  
Word(s)  
Not regulated  
Hazard-determining components of labelling: None  
Hazard  
Statement(s)  
Not regulated  
Hazard description:  
WHMISsymbols:  
None  
NFPA ratings  
(scale 0 - 4)  
Health = 0  
Fire = 0  
Reactivity = 0  
HMIS-ratings  
(scale 0 - 4)  
Health = 0  
Fire = 0  
Reactivity = 0  
HMIS Long  
Term Health  
Hazard  
Substances  
Substance is not listed  
2.3 Other Hazards  
Results of PBT  
and vPvB  
assessment  
PBT: N/A  
vPvB: N/A

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

3.1 Substances  
CAS # / Substance Name  
8049-17-0 Ferrosilicon  
Identification number(s)  
EC number: 617-088-7

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### **SECTION 4. FIRST AID MEASURES**

4.1 Description of First Aid Measures  
General Information: No special measures required.  
If inhaled: Supply fresh air; consult doctor in case of complaints.  
In case of skin contact: Brush off loose particles from skin. Wash with soap and water. If skin irritation is experienced, consult a doctor.

In case of eye contact: Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. If swallowed: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

#### 4.2 Most Important

Symptoms And Effects, Both Acute And Delayed

Slight irritant effect on eyes. Gastric or intestinal disorders when ingested. Nausea in case of ingestion.

Hazards No data available

#### 4.3 Indication Of The Immediate Medical Attention And Special Treatment Needed

No data available

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## SECTION 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing Media

Suitable Extinguishing Media

Use fire extinguishing methods suitable to surrounding conditions.

Unsuitable Extinguishing Media

None.

### 5.2 Special Hazards Arising From The Substance Or Mixture

No data available

### 5.3 Advice for Fire-Fighters Wear self-contained respiratory protective device. Wear fully protective suit.

Additional Information No data available

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions, Protective Equipment And Emergency Procedures

Avoid formation of dust. For large spills, use respiratory protective device against the effects of fumes/dust/aerosol. For large spills, wear protective clothing. Ensure adequate ventilation.

### 6.2 Environmental Precautions Do not allow to enter

sewers/ surface or groundwater.

#### 6.3 Methods And Material For Containment And Cleaning Up

Pick up mechanically. Dispose contaminated material as waste

according to item 13.

6.4 Reference To Other Sections See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## SECTION 7. HANDLING AND STORAGE

### 7.1

Precautions For Safe

Handling

Use only in well ventilated areas. Prevent formation of dust. Do not dry clean dust

covered objects and floors. Wash thoroughly with

plenty of water. Any unavoidable

deposit of dust must be regularly removed.

Information About

Fire – and explosion

protection

No special measures required.

### 7.2 Conditions For Safe Storage, Including Any

Incompatibilities:

Requirements to be

Met by Storerooms

and Receptacles:

Store in a cool location. Protect from humidity and water.

Information About

Storage in One

Common Storage

Facility:

Store away from oxidizing agents. Store away from foodstuffs. Do not store together

with acids.

Further information

about storage

conditions:

Store in cool, dry conditions in well sealed receptacles.

### 7.3 Specific End Use(s) No data available

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical

facilities: No further data; see item 7.

#### 8.1 Control Parameters

Ingredients with limit values that require monitoring at the workplace:

Ferrosilicon 8049-17-0 PEL (USA) Long-term value:

15 (total), 5 (resp.) mg/m<sup>3</sup>

DNELs No data available

PNECs No data available

Additional information: The lists valid during the making were used as basis.

#### 8.2 Exposure Controls

##### 8.2.2 Personal Protective Equipment:

General protective and hygienic measures:

General

protective and

hygienic

measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at

the end of work. Immediately remove all soiled and contaminated clothing. Do not

inhale dust / smoke / mist. Avoid contact with the eyes. Avoid close or long term

contact with the skin.

Respiratory

Protection

Not required under normal conditions of use. For spills, respiratory protection may be advisable. Use suitable respiratory protective device when high concentrations are present.

Eye Protection Wear safety glasses

Protection of

Hands

Wear protective gloves.

Body Protection Not required under normal conditions of use.

Protection may be required for spills.

Risk Management

Measures

No special requirements.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information On Basic Physical And Chemical Properties

Appearance Granulate Color Grey

Odor Odorless Odor Threshold (ppm) Not available

Melting Point (°C) /

Freezing Point (°C)

4892 °F/ 2700 °C Boiling Point/Boiling Range (°C) Not available  
Flash Point (°C) No Data Explosive Limit Ranges Not available  
Auto Ignition  
Temperature (°C)  
Not available Decomposition Temperature (°C) Not available  
Explosive Properties None Oxidizing Properties Not available  
Flammability (Solid, Gas) Not available Ph (Value)  
Not available  
Evaporation Rate N/A Vapor Pressure (mm Hg) Not available  
Vapor Density (Air=1) N/A Density (g/ml) 6,7 g/cm<sup>3</sup>  
Solubility (Water) Insoluble Solubility (Other) Not available  
Partition Coefficient (NOctanol/  
Water)  
Not available Viscosity (mPa.s) Not available  
9.2 Other Information Volatile Organic Chemical (VOC) Content – Not Available.

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## **SECTION 10. STABILITY AND REACTIVITY**

10.1 Reactivity  
10.2 Chemical Stability  
Thermal Decomposition / conditions  
to be avoided:  
No decomposition if used according to specifications.  
10.3 Possibility of Hazardous Reactions Reacts with strong acids and alkali. Reacts with strong oxidising agents.  
10.4 Conditions To Avoid Store away from oxidising agents. Moisture.  
10.5 Incompatible Materials No data available  
10.6 Hazardous Decomposition Product(s) Possible in traces.

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

11.1 Information on Toxicological Effects  
Primary Irritant Effect:  
On the skin: Slight irritant effect on skin and mucous membranes.  
On the eye: Slight irritant effect on eyes.  
Sensitisation: No sensitizing effects known.  
Additional toxicological  
information:  
When used and handled according to specifications,

the  
product does not have any harmful effects to our  
experience  
and the information provided to us. The substance is  
not  
subject to classification according to the latest version  
of the  
EU lists.  
Acute effects (acute toxicity,  
irritation and corrosivity):  
Inhalation may cause irritation to the respiratory  
system.  
Repeated dose toxicity: Repeated exposure may  
result in skin sensitivity.

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## **SECTION 12. ECOLOGICAL INFORMATION**

### 12.1 Toxicity

Aquatic toxicity: No data available

12.2 Persistence and Degradability No data available

12.3 Bioaccumulative Potential No data available

12.4 Mobility in Soil No data available

Additional ecological information: Not known to be  
hazardous to water.

12.5 Results of PBT and vPvB

Assessment

PBT: N/A

vPvB: N/A

12.6 Other Adverse Effects No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

### 13.1 Waste Treatment Methods

Recommendation Smaller quantities can be disposed  
of with household waste. Contact waste  
processors for recycling information. The user of this  
material has the  
responsibility to dispose of unused material, residues  
and containers in  
compliance with all relevant local, state and federal  
laws and regulations  
regarding treatment, storage and disposal for  
hazardous and nonhazardous  
wastes. Residual materials should be treated as  
hazardous.

Uncleaned Packaging:

Recommendation: Disposal must be made according  
to official regulations.



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## SECTION 14. TRANSPORT INFORMATION

Land Transport (ADR/RID) (c)(d) Land Transport  
(Within USA) (b)(d)  
UN Number None UN Number None  
Proper Shipping Name  
Not classified as  
dangerous for transport.  
Proper Shipping Name  
Not classified as dangerous for  
transport.  
Transport Hazard Class(es) None Transport Hazard  
Class(es) None  
Packing Group None Packing Group None  
Hazard Label(s) None Hazard Label(s) None  
Environmental Hazards None Environmental Hazards  
None  
Special Precautions For User None Special  
Precautions For User None  
Sea Transport (IMDG) (c) Air Transport (ICAO/IATA)  
(c) (d)  
UN Number None UN Number None  
Proper Shipping Name  
Not classified as  
dangerous for transport.  
Proper Shipping Name  
Not classified as dangerous for  
transport.  
Transport Hazard Class(es) None Transport Hazard  
Class(es) None  
Packing Group None Packing Group None  
Marine Pollutant None Marine Pollutant None  
Special Precautions For User None Special  
Precautions For User None  
(b)- ORM-D may be applicable within the USA for  
package sizes less than 30kg.  
(c)– Consult with transport provider.  
(d)– Check relevant regulations for Special  
Provisions.  
Transport in bulk according to Annex II of  
MARPOL73/78 and the IBC Code

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## SECTION 15. REGULATORY INFORMATION

15.1 Safety, Health And Environmental  
Regulations/Legislation Specific For The Substance  
Or Mixture  
USA  
SARA  
Section 355 (extremely hazardous)

substances)  
Substance is not listed.  
Section 313 (Specific toxic chemical listings)  
Substance is not listed.  
TSCA (Toxic Substance Control Act) Not all ingredients listed.  
Proposition 65 (California):  
Chemicals known to cause cancer: Substance is not listed.  
Chemicals known to cause reproductive toxicity for females:  
Substance is not listed.  
Chemicals known to cause reproductive toxicity for males:  
Substance is not listed.  
Chemicals known to cause developmental toxicity:  
Substance is not listed.  
Carcinogenic Categories  
EPA (Environmental Protection Agency) Substance is not listed.  
IARC (International Agency for Research on Cancer)  
Substance is not listed.  
TLV (Threshold Limit Value established by ACGIH)  
Substance is not listed.  
MAK (German Maximum Workplace Concentration)  
Substance is not listed.  
NIOSH-Ca (National Institute for Occupational Safety and Health)  
Substance is not listed.  
Canada  
Canadian Domestic Substances List (DSL) Substance is listed.  
Canadian Ingredient Disclosure list (limit 0.1%)  
Substance is not listed.  
Canada Ingredient Disclosure list (limit 1%)  
Substance is listed.  
Other regulations, limitations and prohibitive regulations  
Substances of very high concern (SVHC) according to REACH, Article 57  
Substance is not listed.  
15.2 Chemical Safety Assessment A Chemical Safety Assessment has not been carried out.

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## **16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No.

1907/2006 (REACH). 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. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.

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