

SAFETY DATA SHEET

Version 6.1 Revision Date 03/12/2019 Print Date 05/11/2019

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

1.1 Product identifiers

| Product name | : 1,1'-Dimethylferrocene |
|----------------|--------------------------|
| Product Number | : 109576 |
| Brand | : Aldrich |
| CAS-No. | : 1291-47-0 |

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

Identified uses : Laboratory chemicals, Synthesis of substances

: +1 800 325-5052

1.3 Details of the supplier of the safety data sheet

| Company | : Sigma-Aldrich Inc. 3050 Spruce Street ST. LOUIS MO 63103 UNITED STATES |
|-----------|---|
| Telephone | : +1 314 771-5765 |

1.4 Emergency telephone number

Emergency Phone # : (314) 776-6555

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: Composition/information on ingredients

| 3 | .1 | Substances |
|---|----|------------|
| 3 | | Substances |

Synonyms

Fax

: Bis(methylcyclopentadienyl)iron

| Formula | : | C ₁₂ H ₁₄ Fe |
|-----------------------------|---|------------------------------------|
| Molecular weight CAS-No. | | 214.08 g/mol 1291-47-0 |

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EC-No.

: 215-067-3

No components need to be disclosed according to the applicable regulations.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with 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 Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture Carbon oxides, Iron oxides

5.3 Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information No data available

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.
- **6.2 Environmental precautions** No special environmental precautions required.
- **6.3 Methods and materials for containment and cleaning up** Sweep up and shovel. Keep in suitable, closed containers for disposal.
- **6.4** Reference to other sections For disposal see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): 13: Non Combustible Solids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(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.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

No special environmental precautions required.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | P- | | |
|-----|--|--|--|
| a) | Appearance | Form: solid | |
| b) | Odour | No data available | |
| c) | Odour Threshold | No data available | |
| d) | рН | No data available | |
| e) | Melting point/freezing point | Melting point/range: 37 - 40 °C (99 - 104 °F) - lit. | |
| f) | Initial boiling point and boiling range | No data available | |
| g) | Flash point | 108.00 °C (226.40 °F) - closed cup | |
| 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 | |
| I) | Vapour density | No data available | |
| m) | Relative density | No data available | |
| n) | Water solubility | No data available | |
| 0) | 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 | No data available | |
| t) | Oxidizing properties | No data available | |
| Oth | Other safety information | | |

9.2 Other safety informa 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** No data available

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10.4 Conditions to avoid No data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Iron oxides

Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No data available Inhalation: No data available Dermal: No data available No data available

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

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available 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

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SECTION 12: Ecological information

12.1 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
- 12.5 Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
- 12.6 Other adverse effects No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

ΙΑΤΑ

Not dangerous goods

SECTION 15: Regulatory information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

| Pennsylvania Right To Know Components 1,1'-Dimethylferrocene | CAS-No. 1291-47-0 | Revision Date |
|--|----------------------|---------------|
| New Jersey Right To Know Components 1,1'-Dimethylferrocene | CAS-No. 1291-47-0 | Revision Date |

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

Further information

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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. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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