



## SAFETY DATA SHEET

Creation Date 08-Sep-2014

Revision Date 08-Jan-2015

Revision Number 1

### 1. Identification

**Product Name** DL-Methionine

**Cat No. :** AC125650000; AC125650010; AC125650025; AC125651000; AC125652500

**Synonyms** DL-2-Amino-4-(methylthio)butyric acid

**Recommended Use** Laboratory chemicals.

**Uses advised against** No Information available

**Details of the supplier of the safety data sheet**

**Company**  
Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

**Entity / Business Name**  
Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

**Emergency Telephone Number**  
For information **US** call: 001-800-ACROS-01  
/ **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 /  
**Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 /  
**Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Based on available data, the classification criteria are not met

#### Label Elements

None required

#### Hazards not otherwise classified (HNOC)

May form combustible dust concentrations in air

### 3. Composition / information on ingredients

| Component     | CAS-No  | Weight % |
|---------------|---------|----------|
| DL-Methionine | 59-51-8 | 99       |

### 4. First-aid measures

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

|                                                               |                                                                                                                                                 |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Skin Contact</b>                                           | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.                         |
| <b>Inhalation</b>                                             | Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur. |
| <b>Ingestion</b>                                              | Never give anything by mouth to an unconscious person. Do not induce vomiting. Obtain medical attention.                                        |
| <b>Most important symptoms/effects<br/>Notes to Physician</b> | No information available.<br>Treat symptomatically                                                                                              |

## 5. Fire-fighting measures

|                                         |                                                                              |
|-----------------------------------------|------------------------------------------------------------------------------|
| <b>Suitable Extinguishing Media</b>     | Water spray. Carbon dioxide (CO <sub>2</sub> ). Dry chemical. chemical foam. |
| <b>Unsuitable Extinguishing Media</b>   | No information available                                                     |
| <b>Flash Point</b>                      | No information available                                                     |
| <b>Method -</b>                         | No information available                                                     |
| <b>Autoignition Temperature</b>         | No information available                                                     |
| <b>Explosion Limits</b>                 |                                                                              |
| <b>Upper</b>                            | No data available                                                            |
| <b>Lower</b>                            | No data available                                                            |
| <b>Sensitivity to Mechanical Impact</b> | No information available                                                     |
| <b>Sensitivity to Static Discharge</b>  | No information available                                                     |

### Specific Hazards Arising from the Chemical

Dust can form an explosive mixture in air.

### Hazardous Combustion Products

Nitrogen oxides (NO<sub>x</sub>) Carbon monoxide (CO) Carbon dioxide (CO<sub>2</sub>) Sulfur oxides

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### NFPA

|               |                     |                    |                         |
|---------------|---------------------|--------------------|-------------------------|
| <b>Health</b> | <b>Flammability</b> | <b>Instability</b> | <b>Physical hazards</b> |
| 1             | 1                   | 0                  | N/A                     |

## 6. Accidental release measures

|                                             |                                                                                                                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal Precautions</b>                 | Ensure adequate ventilation. Use personal protective equipment.                                                                                           |
| <b>Environmental Precautions</b>            | See Section 12 for additional ecological information.                                                                                                     |
| <b>Methods for Containment and Clean Up</b> | Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Use spark-proof tools and explosion-proof equipment. |

## 7. Handling and storage

|                 |                                                                                                                                                                                                         |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b> | Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breathe dust. Do not breathe vapors or spray mist. Minimize dust generation and accumulation. |
| <b>Storage</b>  | Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep refrigerated.                                                                                                        |

## 8. Exposure controls / personal protection

|                            |                                                                                                                                               |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Exposure Guidelines</b> | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|

|                                      |                                                                                                                                                                                                                                                   |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Engineering Measures</b>          | Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.                                                                                                 |
| <b>Personal Protective Equipment</b> |                                                                                                                                                                                                                                                   |
| <b>Eye/face Protection</b>           | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.                                                                       |
| <b>Skin and body protection</b>      | Wear appropriate protective gloves and clothing to prevent skin exposure.                                                                                                                                                                         |
| <b>Respiratory Protection</b>        | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |
| <b>Hygiene Measures</b>              | Handle in accordance with good industrial hygiene and safety practice.                                                                                                                                                                            |

## 9. Physical and chemical properties

|                                               |                               |
|-----------------------------------------------|-------------------------------|
| <b>Physical State</b>                         | Powder Solid                  |
| <b>Appearance</b>                             | White                         |
| <b>Odor</b>                                   | Slight                        |
| <b>Odor Threshold</b>                         | No information available      |
| <b>pH</b>                                     | 5.6-6.1 1% aq.sol. (25 °C)    |
| <b>Melting Point/Range</b>                    | 270 - 273 °C / 518 - 523.4 °F |
| <b>Boiling Point/Range</b>                    | No information available      |
| <b>Flash Point</b>                            | No information available      |
| <b>Evaporation Rate</b>                       | No information available      |
| <b>Flammability (solid,gas)</b>               | No information available      |
| <b>Flammability or explosive limits</b>       |                               |
| Upper                                         | No data available             |
| Lower                                         | No data available             |
| <b>Vapor Pressure</b>                         | No information available      |
| <b>Vapor Density</b>                          | No information available      |
| <b>Relative Density</b>                       | 1.340                         |
| <b>Solubility</b>                             | 33.81 g/L @ 25 °C             |
| <b>Partition coefficient; n-octanol/water</b> | No data available             |
| <b>Autoignition Temperature</b>               | No information available      |
| <b>Decomposition Temperature</b>              | No information available      |
| <b>Viscosity</b>                              | No information available      |
| <b>Molecular Formula</b>                      | C5 H11 N O2 S                 |
| <b>Molecular Weight</b>                       | 149.21                        |

## 10. Stability and reactivity

|                                         |                                                                                               |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Reactive Hazard</b>                  | None known, based on information available                                                    |
| <b>Stability</b>                        | Stable under normal conditions.                                                               |
| <b>Conditions to Avoid</b>              | Temperatures above 4°C. Incompatible products.                                                |
| <b>Incompatible Materials</b>           | Strong oxidizing agents                                                                       |
| <b>Hazardous Decomposition Products</b> | Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Sulfur oxides |
| <b>Hazardous Polymerization</b>         | No information available.                                                                     |
| <b>Hazardous Reactions</b>              | None under normal processing.                                                                 |

## 11. Toxicological information

### Acute Toxicity

**Product Information** No acute toxicity information is available for this product

**Component Information**

**Toxicologically Synergistic Products** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation** No information available

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component     | CAS-No  | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|---------------|---------|------------|------------|------------|------------|------------|
| DL-Methionine | 59-51-8 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**

Do not empty into drains.

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available.

**Mobility** No information available.

## 13. Disposal considerations

**Waste Disposal Methods** 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.

## 14. Transport information

**DOT** Not regulated

**TDG** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

## 15. Regulatory information

**International Inventories**

| Component     | TSCA | DSL | NDSL | EINECS    | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|---------------|------|-----|------|-----------|--------|-----|-------|------|------|-------|------|
| DL-Methionine | X    | X   | -    | 200-432-1 | -      |     | X     | X    | X    | X     | -    |

**Legend:**

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

**U.S. Federal Regulations**

TSCA 12(b) Not applicable

SARA 313 Not applicable

**SARA 311/312 Hazardous Categorization**

|                                   |     |
|-----------------------------------|-----|
| Acute Health Hazard               | No  |
| Chronic Health Hazard             | No  |
| Fire Hazard                       | Yes |
| Sudden Release of Pressure Hazard | No  |
| Reactive Hazard                   | No  |

Clean Water Act Not applicable

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration  
Not applicableCERCLA  
Not applicable

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

State Right-to-Know Not applicable

**U.S. Department of Transportation**

|                             |   |
|-----------------------------|---|
| Reportable Quantity (RQ):   | N |
| DOT Marine Pollutant        | N |
| DOT Severe Marine Pollutant | N |

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations**

Mexico - Grade No information available

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class D2A Very toxic materials



## 16. Other information

|                  |                                                                                                                                                                                                                                        |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prepared By      | Regulatory Affairs<br>Thermo Fisher Scientific<br>Email: EMSDS.RA@thermofisher.com                                                                                                                                                     |
| Creation Date    | 08-Sep-2014                                                                                                                                                                                                                            |
| Revision Date    | 08-Jan-2015                                                                                                                                                                                                                            |
| Print Date       | 08-Jan-2015                                                                                                                                                                                                                            |
| Revision Summary | This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) |

### 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.

**End of SDS**