

## SAFETY DATA SHEET

Creation Date 17-July-1996

Revision Date 01-August-2018

Revision Number 4

### 1. Identification

**Product Name** meso-2,3-Dimercaptosuccinic acid

**Cat No. :** AC226670000; AC226670050; AC226670250; AC226671000

**CAS-No** 304-55-2  
**Synonyms** DMSA

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use

#### Details of the supplier of the safety data sheet

##### Company

##### **Importer/Distributor**

Fisher Scientific  
112 Colonnade Road,  
Ottawa, ON K2E 7L6,  
Canada  
Tel: 1-800-234-7437

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

##### **Manufacturer**

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

##### **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

**WHMIS 2015 Classification** Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

|   |            |
|---|------------|
| <b>Skin Corrosion/irritation</b>                        | Category 2 |
| <b>Serious Eye Damage/Eye Irritation</b>                | Category 2 |
| <b>Reproductive Toxicity</b>                            | Category 2 |
| <b>Specific target organ toxicity (single exposure)</b> | Category 3 |
| Target Organs - Respiratory system.                     |            |

#### Label Elements

##### **Signal Word**

Warning

##### **Hazard Statements**

Causes skin irritation  
Causes serious eye irritation  
May cause respiratory irritation

Suspected of damaging fertility or the unborn child



### Precautionary Statements

#### Prevention

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Wash face, hands and any exposed skin thoroughly after handling  
 Use only outdoors or in a well-ventilated area  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Wear eye/face protection

#### Response

IF ON SKIN: Wash with plenty of soap and water  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 IF exposed or concerned: Get medical advice/attention  
 If skin irritation occurs: Get medical advice/attention  
 Take off contaminated clothing

#### Storage

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed

#### Disposal

Dispose of contents/container to an approved waste disposal plant

## 3. Composition/Information on Ingredients

| Component                                   | CAS-No   | Weight % |
|---|----------|----------|
| Butanedioic acid, 2,3-dimercapto-, (R*,S*)- | 304-55-2 | > 95     |

## 4. First-aid measures

|  |   |
|--|---|
| <b>General Advice</b>                  | If symptoms persist, call a physician.  |
| <b>Eye Contact</b>                     | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.   |
| <b>Skin Contact</b>                    | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. |
| <b>Inhalation</b>                      | Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.        |
| <b>Ingestion</b>                       | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.             |
| <b>Most important symptoms/effects</b> | No information available.   |
| <b>Notes to Physician</b>              | 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>         | Not applicable   |
| <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**

Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**

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**

**Health**  
2

**Flammability**  
1

**Instability**  
0

**Physical hazards**  
N/A

## 6. Accidental release measures

|                                  |   |
|----------------------------------|---|
| <b>Personal Precautions</b>      | Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. |
| <b>Environmental Precautions</b> | Should not be released into the environment.  |

**Methods for Containment and Clean Up** Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep in suitable, closed containers for disposal.

## 7. Handling and storage

|                 |   |
|-----------------|---|
| <b>Handling</b> | Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation. |
| <b>Storage</b>  | Keep container tightly closed in a dry and well-ventilated place. To maintain product quality: Store in freezer.  |

## 8. Exposure controls / personal protection

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

**Engineering Measures**

None under normal use conditions. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protective equipment**

|                        |                   |
|------------------------|-------------------|
| <b>Eye Protection</b>  | Goggles           |
| <b>Hand Protection</b> | Protective gloves |

| Glove material | Breakthrough time | Glove thickness | Glove comments |
|----------------|-------------------|-----------------|----------------|
| Natural rubber | See manufacturers | -               |                |

|   |                 |                        |
|---|-----------------|------------------------|
| Butyl rubber<br>Nitrile rubber<br>Neoprene<br>PVC | recommendations | Splash protection only |
|---|-----------------|------------------------|

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

#### Respiratory Protection

No protective equipment is needed under normal use conditions.

**Recommended Filter type:** Particle filter

#### Environmental exposure controls

No information available.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

## 9. Physical and chemical properties

|   |                                 |
|---|---------------------------------|
| <b>Physical State</b>                         | Powder Solid                    |
| <b>Appearance</b>                             | Off-white                       |
| <b>Odor</b>                                   | Stench                          |
| <b>Odor Threshold</b>                         | No information available        |
| <b>pH</b>                                     | No information available        |
| <b>Melting Point/Range</b>                    | 196 - 198 °C / 384.8 - 388.4 °F |
| <b>Boiling Point/Range</b>                    | No information available        |
| <b>Flash Point</b>                            | No information available        |
| <b>Evaporation Rate</b>                       | Not applicable                  |
| <b>Flammability (solid,gas)</b>               | No information available        |
| <b>Flammability or explosive limits</b>       |                                 |
| <b>Upper</b>                                  | No data available               |
| <b>Lower</b>                                  | No data available               |
| <b>Vapor Pressure</b>                         | No information available        |
| <b>Vapor Density</b>                          | Not applicable                  |
| <b>Specific Gravity</b>                       | No information available        |
| <b>Solubility</b>                             | No information available        |
| <b>Partition coefficient; n-octanol/water</b> | No data available               |
| <b>Autoignition Temperature</b>               | Not applicable                  |
| <b>Decomposition Temperature</b>              | No information available        |
| <b>Viscosity</b>                              | Not applicable                  |
| <b>Molecular Formula</b>                      | C4 H6 O4 S2                     |
| <b>Molecular Weight</b>                       | 182.21                          |

## 10. Stability and reactivity

|                               |  |
|-------------------------------|--|
| <b>Reactive Hazard</b>        | None known, based on information available |
| <b>Stability</b>              | No information available.                  |
| <b>Conditions to Avoid</b>    | Incompatible products.                     |
| <b>Incompatible Materials</b> | Oxidizing agents                           |

**Hazardous Decomposition Products** Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Sulfur oxides

**Hazardous Polymerization** No information available.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

### Acute Toxicity

#### Product Information

#### Component Information

**Toxicologically Synergistic Products** No information available

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

**Irritation** Irritating to eyes, respiratory system and skin

**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     |
|---|----------|------------|------------|------------|------------|------------|
| Butanedioic acid, 2,3-dimercapto-, (R*,S*)- | 304-55-2 | 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** Respiratory system

**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

|                 |               |
|-----------------|---------------|
| <u>DOT</u>      | Not regulated |
| <u>TDG</u>      | Not regulated |
| <u>IATA</u>     | Not regulated |
| <u>IMDG/IMO</u> | Not regulated |

## 15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

### International Inventories

| Component                                      | DSL | NDSL | TSCA | EINECS    | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|--|-----|------|------|-----------|--------|-----|-------|------|------|-------|------|
| Butanedioic acid,<br>2,3-dimercapto-, (R*,S*)- | -   | X    | X    | 206-155-2 | -      |     | -     | -    | -    | -     | -    |

### Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

## 16. Other information

|                         |  |
|-------------------------|--|
| <b>Prepared By</b>      | Regulatory Affairs<br>Thermo Fisher Scientific<br>Email: EMSDS.RA@thermofisher.com   |
| <b>Creation Date</b>    | 17-July-1996   |
| <b>Revision Date</b>    | 01-August-2018   |
| <b>Print Date</b>       | 01-August-2018   |
| <b>Revision Summary</b> | This document has been updated to comply with the requirements of WHMIS 2015 to align with the Globally Harmonised System (GHS) for the Classification and Labelling of Chemicals. |

### Disclaimer

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

**End of SDS**