

Safety Data Sheet

Dihydrolipoic acid
EFFECTIVE DATE: 2016-05-18

1 Product and Company Identification

- | | |
|---------------------------------------|--|
| 1.1 Product Name: | Dihydrolipoic acid |
| 1.2 Product Identifier: | 6,8-disulfanyloctanoic acid |
| 1.3 Catalog Number: | 73622 |
| 1.4 Product Use: | Laboratory Chemical |
| 1.5 Manufacturer/Supplier: | STEMCELL Technologies
Suite 500-1618 Station Street
Vancouver, British Columbia V6A 1B6 Canada |
| 1.6 In Case of Emergency Call: | 1-800-667-0322 |

2 Hazards Identification

2.1 Classification of the substance or mixture

Skin Corrosion/Irritation, Category 2
 Serious Eye Damage/Irritation, Category 2
 Specific Target Organ Toxicity (Single Exposure), Category 3

2.2 Label elements

Pictogram



Signal word Warning

Hazard statement(s)

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary statement(s)

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash {hands} thoroughly after handling.
P280	Wear {protective gloves/protective clothing/eye protection/face protection}.
P302+352	IF ON SKIN Wash with plenty of soap and water.
P304+340	IF INHALED Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P332+313	If skin irritation occurs Get medical advice/attention.
P337+313	If eye irritation persists, get medical advice/attention.
P362+364	Take off contaminated clothing and wash it before reuse.

Safety Data Sheet**Dihydrolipoic acid****EFFECTIVE DATE: 2016-05-18****2.3 Other hazards** No data available**3 Composition / Information on Ingredients****3.1 Substances**

Synonyms 6,8-disulfanyloctanoic acid
Molecular formula C₈H₁₆O₂S
Molecular weight 208.3

Hazardous Components (Chemical Name)	CAS #	Concentration	EC #
6,8-disulfanyloctanoic acid	462-20-4	100%	610-288-5

4 First Aid Measures**4.1 Description of first aid measures****4.1.1 If inhaled**

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

4.1.2 In case of skin contact

Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

4.1.3 In case of eye contact

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

4.1.4 If swallowed

Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed

The toxicological properties of this product have not been fully evaluated.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5 Fire Fighting Measures**5.1 Extinguishing Media****5.1.1 Suitable Extinguishing Media**

Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.
Use water spray to cool fire-exposed containers.

5.1.2 Unsuitable Extinguishing Media

A solid water stream may be inefficient.

5.2 Special hazards arising from the substance or mixture

Safety Data Sheet**Dihydrolipoic acid****EFFECTIVE DATE: 2016-05-18****5.2.1 Flammable Properties and Hazards**

No data available

5.2.2 Flash Pt

No data available

5.2.3 Autoignition Pt

No data available

5.2.4 Explosive Limits

LEL: No data available

UEL: No data available

5.2.5 Hazardous Combustion Products

No data available

5.3 Fire Fighting Instructions

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures**6.1 Personal precautions, protective equipment and emergency procedures**

Avoid raising and breathing dust, and provide adequate ventilation.

As conditions warrant, wear a NIOSH approved (or equivalent) self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

6.2 Environmental precautions

Take steps to avoid release into the environment, if safe to do so.

6.3 Methods and materials for containment and cleaning up

Contain spill and collect, as appropriate.

Transfer to a chemical waste container for disposal in accordance with local regulations.

7 Handling and Storage**7.1 Precautions for safe handling**

Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

7.2 Conditions for safe storage

Keep container tightly closed.

Store in accordance with information listed on the product insert.

8 Exposure Controls/Personal Protection**8.1 Exposure limits**

Component	CAS #	Value	Control parameters
6,8-disulfanyloctanoic acid	462-20-4	No data available	No data available

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8.2 Engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

8.3 Personal protective equipment

8.3.1 Eye/face protection

Safety glasses

8.3.2 Skin protection

Compatible chemical-resistant gloves

Lab coat

8.3.3 Respiratory protection

NIOSH (US) or CEN (EU) approved respirator, as conditions warrant.

8.3.4 General hygiene considerations

Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Wash thoroughly after handling.

8.3.5 Environmental exposure controls

No data available

9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Neat oil
Odour	No data available
Odour threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Boiling point/boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Solubility	~0.25 mg/mL in 1:8 EtOH:PBS (pH 7.2); ~30 mg/mL in EtOH, DMSO, & DMF
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

Safety Data Sheet**Dihydrolipoic acid****EFFECTIVE DATE: 2016-05-18****10 Stability and Reactivity**

10.1 Reactivity	No data available
10.2 Chemical stability	Stable
10.3 Possibility of hazardous reactions	No data available
10.4 Conditions to avoid	No data available
10.5 Incompatible materials	No data available
10.6 Hazardous decomposition products	No data available

11 Toxicological Information**11.1 Acute toxicity**

Oral:	No data available
Inhalation:	No data available
Dermal:	TDLO (mouse): 100 mg/kg/30 weeks (intermittent)
Other:	Intraperitoneal LD50 (mouse): 100 mg/kg

11.2 Skin corrosion/irritation

No data available

11.3 Serious eye damage/eye irritation

No data available

11.4 Respiratory and/or skin sensitization

No data available

11.5 Germ cell mutagenicity

No data available

11.6 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 identified as a carcinogen or potential carcinogen by OSHA.

11.7 Reproductive toxicity

No data available

11.8 Specific target organ toxicity - single exposure

No data available

11.9 Specific target organ toxicity - repeated exposure

No data available

11.10 Aspiration hazard

No data available

11.11 Potential health effects

Inhalation:	May be harmful if inhaled. Material may be irritating to the mucous membranes or upper respiratory tract.
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Ingestion: May be harmful if swallowed.
 Skin: May be harmful if absorbed through skin. Causes skin irritation.
 Eyes: Causes serious eye irritation.

11.12 Signs and symptoms of exposure

Investigated as a tumorigen.
 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

11.13 RTECS # RH0525000

12 Ecological Information

12.1 Toxicity	Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.
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 Other adverse effects	No data available

13 Disposal Considerations

13.1 Waste disposal method
 Dispose in accordance with local, provincial/state, and federal regulations.

13.2 Contaminated packaging
 Dispose of as unused product.

14 Transport Information

14.1 UN number	No data available
14.2 UN proper shipping name	DOT Not dangerous goods ADR/RID Not dangerous goods IMDG Not dangerous goods IATA Not dangerous goods
14.3 Transport hazard class(es)	No data available
14.4 Packing group	No data available
14.5 Environmental hazards	No data available
14.6 Special precautions	No data available

15 Regulatory Information

15.1 US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)
6,8-disulfanyloctanoic acid	462-20-4	No	No	No

Safety Data Sheet**Dihydrolipoic acid****EFFECTIVE DATE: 2016-05-18****15.2 Other US EPA or State Lists**

Hazardous Components (Chemical Name)	CAS #	CAA HAP, ODC	CWA NPDES	TSCA	CA PROP.65
6,8-disulfanyloctanoic acid	462-20-4	No	No	No	No

15.3 EU

This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

15.4 Canada

WHMIS Classification:

D2B Toxic material causing other toxic effects. Moderate eye irritant.

Moderate skin irritant.

This SDS was prepared in accordance with Hazardous Products Regulations (HPR) and WHMIS 2015.

16 Other Information

16.1 Prepared by: Quality Control, STEMCELL Technologies Inc.

16.2 Revision: N/A

16.3 Notice: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. STEMCELL Technologies Inc. shall not be held liable for any damage resulting from handling or from contact with the product. The information contained in this Safety Data Sheet (SDS) is current as of the Effective Date shown in this document and may be subject to amendment by STEMCELL Technologies Inc.

16.4 Disclaimer: **THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.**