# SIGMA-ALDRICH

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# SAFETY DATA SHEET

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1. PRODUCT AND COMPANY IDENTIFICATION					
Product name	:	L-Cystine			
Product Number Brand Product Use	:	C8755 Sigma For laboratory research purposes.			
Supplier	:	Sigma-Aldrich Canada Co. 2149 Winston Park Drive OAKVILLE ON L6H 6J8 CANADA	Manufactur er	:	Sigma-Aldrich Corporation 3050 Spruce St. St. Louis, Missouri 63103 USA
Telephone	:	+1 9058299500			
Fax	:	+1 9058299292			
Emergency Phone # (For both supplier and manufacturer)	:	+1-703-527-3887 (CHEMTREC)			
Preparation Information	:	Sigma-Aldrich Corporation Product Safety - Americas Region 1-800-521-8956			
2. HAZARDS IDENTIFICATION					
Emergency Overview					
WHMIS Classification					

Not WHMIS controlled.

Not a dangerous substance according to GHS.

Health hazard:	0
Flammability:	0
Physical hazards:	0

# **Potential Health Effects**

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.
Ingestion	May be harmful if swallowed.

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

Synonyms	: (R,R)-3,3'-Dithiobi	s(2-aminopropionicacid)	
Formula Molecular Weight	: C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> O <sub>4</sub> S <sub>2</sub> : 240.30 g/mol		
CAS-No.	EC-No.	Index-No.	Concentration
Cystine			
56-89-3	200-296-3	-	<=100%

# 4. 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.

# **5. FIREFIGHTING MEASURES**

#### Conditions of flammability

Not flammable or combustible.

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

#### Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides

# Explosion data - sensitivity to mechanical impact no data available

Explosion data - sensitivity to static discharge no data available

# 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions

Avoid dust formation. Avoid breathing vapours, mist or gas.

#### **Environmental precautions**

Do not let product enter drains.

#### Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

# 7. HANDLING AND STORAGE

#### Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

### Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Personal protective equipment

#### **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).

#### Hand 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.

Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

# Eye protection

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

### Skin and 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.

#### Hygiene measures

General industrial hygiene practice.

#### Specific engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure. 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

Form	crystalline
Colour	white

#### Safety data

рН	no data available
Melting point/freezing point	Melting point/range: > 240 °C (> 464 °F)
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Auto-ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evapouration rate	no data available

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

#### **Chemical stability**

Stable under recommended storage conditions.

# Possibility of hazardous reactions no data available

Conditions to avoid

Materials to avoid

Strong oxidizing agents

#### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides Other decomposition products - no data available

# **11. TOXICOLOGICAL INFORMATION**

#### Acute toxicity

Oral LD50 no data available

Inhalation LC50 no data available

Dermal LD50 no data available

Other information on acute toxicity 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

#### 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.

#### Reproductive toxicity

no data available

#### Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System) no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System) no data available

Aspiration hazard no data available

#### **Potential health effects**

Inhalation Ingestion May be harmful if inhaled. May cause respiratory tract irritation. May be harmful if swallowed.

Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

#### Signs and Symptoms of Exposure

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

# Synergistic effects no data available

# Additional Information

RTECS: Not available

# **12. ECOLOGICAL INFORMATION**

#### Toxicity

no data available

# Persistence and degradability no data available

**Bioaccumulative potential** no data available

#### Mobility in soil no data available

no data available

**PBT and vPvB assessment** no data available

#### Other adverse effects

no data available

# **13. DISPOSAL CONSIDERATIONS**

#### Product

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

#### **Contaminated packaging**

Dispose of as unused product.

# **14. TRANSPORT INFORMATION**

DOT (US) Not dangerous goods

**IMDG** Not dangerous goods

IATA Not dangerous goods

# **15. REGULATORY INFORMATION**

#### **WHMIS Classification**

Not WHMIS controlled.

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

### **16. OTHER INFORMATION**

#### Text of H-code(s) and R-phrase(s) mentioned in Section 3

#### **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.