# SIGMA-ALDRICH

# **Material Safety Data Sheet**

Version 3.0 Revision Date 07/14/2007 Print Date 07/11/2010

# 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : L-Glutathione reduced

Product Number : G4251

Brand : Sigma-Aldrich

Company : Sigma-Aldrich

3050 Spruce Street SAINT LOUIS MO 63103

USA

Telephone : +18003255832 Fax : +18003255052 Emergency Phone # : (314) 776-6555

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : gamma -L-Glutamyl-L-cysteinyl-glycine

GSH

Formula : C10H17N3O6S Molecular Weight : 307.33 g/mol

CAS-No.	EC-No.	Index-No.	Concentration [%]
Glutathione			
70-18-8	200-725-4	-	-

# 3. HAZARDS IDENTIFICATION

Emergency Overview OSHA Hazards

No OSHA Hazards

HMIS Classification Health Hazard: 1 Flammability: 0 Physical hazards: 0

**NFPA Rating** 

Health Hazard: 0

Fire: 0

**Reactivity Hazard**: 0

**Potential Health Effects** 

InhalationSkinMay be harmful if inhaled. May cause respiratory tract irritation.May be harmful if absorbed through skin. May cause skin irritation.

Sigma-Aldrich Corporation www.sigma-aldrich.com **Eyes** May cause eye irritation. **Ingestion** May be harmful if swallowed.

# 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. FIRE-FIGHTING MEASURES

## Flammable properties

Flash point no data available Ignition temperature no data available

#### Suitable extinguishing media

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

# Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

#### 6. ACCIDENTAL RELEASE MEASURES

# Personal precautions

Avoid dust formation.

#### **Environmental precautions**

Do not let product enter drains.

#### Methods for cleaning up

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

#### 7. HANDLING AND STORAGE

#### Handling

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

#### Storage

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

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

#### 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**

For prolonged or repeated contact use protective gloves.

#### Eye protection

Safety glasses

## **Hygiene measures**

General industrial hygiene practice.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

# **Appearance**

Form powder Colour white

### Safety data

pH no data available

Melting point 192 - 195 °C (378 - 383 °F)

Boiling point no data available
Flash point no data available
Ignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Water solubility no data available

#### 10. STABILITY AND REACTIVITY

# Storage stability

Stable under recommended storage conditions.

# Materials to avoid

Strong oxidizing agents

# **Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions.

Carbon oxides, nitrogen oxides (NOx), Sulphur oxides

# 11. TOXICOLOGICAL INFORMATION

#### **Acute toxicity**

LD50 Oral - mouse - 5,000 mg/kg

#### Irritation and corrosion

no data available

# Sensitisation

no data available

#### Chronic exposure

no data available

# Signs and Symptoms of Exposure

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

# **Potential Health Effects**

InhalationSkinMay be harmful if inhaled. May cause respiratory tract irritation.May be harmful if absorbed through skin. May cause skin irritation.

**Eves** May cause eye irritation. Ingestion May be harmful if swallowed.

# 12. ECOLOGICAL INFORMATION

# Elimination information (persistence and degradability)

no data available

## **Ecotoxicity effects**

no data available

# Further information on ecology

no data available

# 13. DISPOSAL CONSIDERATIONS

#### **Product**

Observe all federal, state, and local environmental regulations.

# Contaminated packaging

Dispose of as unused product.

#### 14. TRANSPORT INFORMATION

#### DOT (US)

Not dangerous goods

#### **IMDG**

Not dangerous goods

Not dangerous goods

# 15. REGULATORY INFORMATION

# **OSHA Hazards**

No OSHA Hazards

## **TSCA Status**

On TSCA Inventory

#### **DSL Status**

All components of this product are on the Canadian DSL list.

#### **SARA 302 Components**

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

#### **SARA 313 Components**

SARA 313: 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.

#### SARA 311/312 Hazards

No SARA Hazards

# **Massachusetts Right To Know Components**

No Components Listed

Glutathione

# **Pennsylvania Right To Know Components**

CAS-No. 70-18-8

**Revision Date** 

Sigma-Aldrich - G4251 Page 4 of 5 www.sigma-aldrich.com

# **New Jersey Right To Know Components**

Glutathione

CAS-No. 70-18-8

**Revision Date** 

# California Prop. 65 Components

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

#### 16. OTHER INFORMATION

#### **Further information**

Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only., 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 Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.