SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers
   
   Product name : L-Glutathione oxidized
   
   Product Number : G4376
   Brand : Sigma
   CAS-No. : 27025-41-8

1.2 Relevant identified uses of the substance or mixture and uses advised against
   
   Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet
   
   Company : Sigma-Aldrich Inc.
   3050 SPRUCE ST
   ST. LOUIS MO  63103
   UNITED STATES

   Telephone : +1 314 771-5765
   Fax : +1 800 325-5052

1.4 Emergency telephone
   
   Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   
   Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements
   
   Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: Composition/information on ingredients

3.1 Substances
   
   Synonyms : GSSG
               Glutathiol
   
   Formula : C₂₀H₃₂N₆O₁₂S₂

Sigma - G4376
Molecular weight : 612.63 g/mol  
CAS-No. : 27025-41-8  
EC-No. : 248-170-7  

No components need to be disclosed according to the applicable regulations.

SECTION 4: First aid measures

4.1 Description of first-aid measures  
No data available

4.2 Most important symptoms and effects, both acute and delayed  
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed  
No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media  
No data available

5.2 Special hazards arising from the substance or mixture  
Carbon oxides  
Nitrogen oxides (NOx)  
Sulfur oxides  
Combustible.

5.3 Advice for firefighters  
No data available

5.4 Further information  
No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures  
For personal protection see section 8.

6.2 Environmental precautions  
No data available

6.3 Methods and materials for containment and cleaning up  
No data available

6.4 Reference to other sections  
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling  
For precautions see section 2.2.
7.2 Conditions for safe storage, including any incompatibilities
No data available

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters
Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Skin protection
This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).
Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: KCL 741 Dermatril® L

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Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: KCL 741 Dermatril® L

Control of environmental exposure
Prevent product from entering drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance
   Form: powder
   Color: white
b) Odor
   No data available
c) Odor Threshold
   No data available
d) pH
   No data available
e) Melting point/freezing point
   No data available
f) Initial boiling point and boiling range  No data available

g) Flash point  No data available

h) Evaporation rate  No data available

i) Flammability (solid, gas)  No data available

j) Upper/lower flammability or explosive limits  No data available

k) Vapor pressure  No data available

l) Vapor density  No data available

m) Relative density  No data available

n) Water solubility  No data available

o) Partition coefficient: n-octanol/water  No data available

p) Autoignition temperature  No data available

q) Decomposition temperature  No data available

r) Viscosity  No data available

s) Explosive properties  No data available

t) Oxidizing properties  No data available

9.2 Other safety information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
No data available

10.3 Possibility of hazardous reactions
Violent reactions possible with:
Strong oxidizing agents

10.4 Conditions to avoid
Avoid moisture.

10.5 Incompatible materials
Oxidizing agents, Peroxides

10.6 Hazardous decomposition products
In the event of fire: see section 5
SECTION 11: Toxicological information

11.1 Information on toxicological effects

**Acute toxicity**
LD50 Oral - Rat - > 5,000 mg/kg
Inhalation: No data available
Dermal: No data available
No data available

**Skin corrosion/irritation**
No data available

**Serious eye damage/eye irritation**
No data available

**Respiratory or skin sensitization**
No data available

**Germ cell mutagenicity**
No data available

**Carcinogenicity**
IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No ingredient 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 on OSHA’s list of regulated carcinogens.

**Reproductive toxicity**
No data available
No data available

**Specific target organ toxicity - single exposure**
No data available

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available

11.2 Additional Information

Not available

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

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SECTION 12: Ecological information

12.1 Toxicity
No data available

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 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods
No data available

SECTION 14: Transport information

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

Further information
Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

SARA 302 Components
This material does not contain any components with a section 302 EHS TPQ.

SARA 313 Components
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 are subject to the Massachusetts Right to Know Act.

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components
Bi(glutathion-S-yl) CAS-No. 27025-41-8

New Jersey Right To Know Components
Bi(glutathion-S-yl) CAS-No. 27025-41-8

SECTION 16: Other information
The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact mlsbranding@sial.com.

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