

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : (-)-Glutathione, oxidized

Product Number : 150568  
Brand : Aldrich

Company : Sigma-Aldrich Canada, Ltd  
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OAKVILLE ON L6H 6J8  
CANADA

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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Synonyms : L-Glutathione oxidized  
GSSG  
Glutathiol

Formula : C<sub>20</sub>H<sub>32</sub>N<sub>6</sub>O<sub>12</sub>S<sub>2</sub>

CAS-No.	EC-No.	Index-No.	Concentration
<b>Bi(glutathion-S-yl)</b>			
27025-41-8	248-170-7	-	>= 99 %
<b>Ethanol</b>			
64-17-5	200-578-6	603-002-00-5	<= 5 %
<b>Water</b>			
7732-18-5	231-791-2	-	<= 4 %

**3. HAZARDS IDENTIFICATION****Emergency Overview****Target Organs**

Nerves., Liver, Heart

**WHMIS Classification**

D2B Toxic Material Causing Other Toxic Effects Moderate skin irritant

**HMIS Classification**

**Health Hazard:** 2  
**Chronic Health Hazard:** \*  
**Flammability:** 0  
**Physical hazards:** 1

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**Potential Health Effects**

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

**4. FIRST AID MEASURES****General advice**

Move out of dangerous area.

**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.

Keep in a dry place.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

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Components	CAS-No.	Value	Control parameters	Update	Basis
Ethanol	64-17-5	TWA	1,000 ppm	2006-11-29	Canada, British Columbia OEL
		TWAE V	1,000 ppm 1,900 mg/m3	2005-12-17	Canada, Ontario OELs
		TWA	1,000 ppm 1,880 mg/m3	2004-04-30	Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required				
		TWA	1,000 ppm 1,880 mg/m3	2007-01-01	Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)
	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required				
		TWAE V	1,000 ppm 1,880 mg/m3	2006-12-29	Canada, Quebec OELs

**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.

**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 178 °C (352 °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

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Water solubility no data available

**10. STABILITY AND REACTIVITY****Storage stability**

Store under recommended storage conditions.

**Conditions to avoid**

Avoid moisture.

**Materials to avoid**

Oxidizing agents, Peroxides

**Hazardous decomposition products**

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

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

LD50 Oral - rat - > 5,000 mg/kg

**Irritation and corrosion**

no data available

**Sensitisation**

no data available

**Chronic exposure**

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.

**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**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.

**Skin** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation.

**Ingestion** May be harmful if swallowed.

**Target Organs** Nerves., Liver, Heart,

**12. ECOLOGICAL INFORMATION****Elimination information (persistence and degradability)**

no data available

**Ecotoxicity effects**

no data available

**Further information on ecology**

no data available

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**13. DISPOSAL CONSIDERATIONS****Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**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****DSL Status**

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

**WHMIS Classification**

D2B Toxic Material Causing Other Toxic Effects Moderate skin irritant

**16. OTHER INFORMATION****Further information**

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