

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : D-(+)-Gluconic acid δ -lactone
 Product Number : 49120
 Brand : Fluka
 Company : Sigma-Aldrich Canada, Ltd
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 CANADA
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : δ -Gluconolactone
 1,2,3,4,5-Pentahydroxycaproic acid δ -lactone
 D-(+)-Dextronic acid δ -lactone

Formula : $C_6H_{10}O_6$
 Molecular Weight : 178.14 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
D-Glucono-1,5-lactone			
90-80-2	202-016-5	-	-

3. HAZARDS IDENTIFICATION**WHMIS Classification**

Not WHMIS controlled.

Not WHMIS controlled.

HMIS Classification

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.

4. FIRST AID MEASURES

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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 special 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. Moisture sensitive.

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

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Hygiene measures

General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form : crystalline, powder

Colour : white

Safety data

pH : no data available

Melting point : 160 °C (320 °F)

154 - 162 °C (309 - 324 °F)

Boiling point : no data available

Flash point : no data available

Ignition temperature : no data available

Lower explosion limit : 2 %(V)

Upper explosion limit : 27.5 %(V)

Water solubility : no data available

10. STABILITY AND REACTIVITY**Storage stability**

Stable under recommended storage conditions.

Conditions to avoid

Avoid moisture. Light.

Materials to avoid

Strong oxidizing agents, Strong bases

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

no data available

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

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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. 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.**Additional Information**

RTECS: LZ5184000

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

IATA

Not dangerous goods

15. REGULATORY INFORMATION**DSL Status**

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

WHMIS Classification

Not WHMIS controlled.

Not WHMIS controlled.

16. OTHER INFORMATION**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 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.

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