

SAFETY DATA SHEET



Revision date: 05-Feb-2024

Revision Number 3

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product identifier

Product Name SODIUM GLUCONATE

Product Code(s) 000000009185

Other means of identification

CAS No. 527-07-1

Synonyms D-Gluconic acid, monosodium salt; Gluconic acid, sodium salt.

Recommended use of the chemical and restrictions on use

Recommended use Electroplating, metal surface washing, aluminium oxidation colouring, water treatment, food additive.

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier

Ixom Operations Pty Ltd (Incorporated in Australia)
NZBN: 9429041465226 Address: 166 Totara Street
Mt Maunganui South
New Zealand

Telephone Number: +64 9 368 2700

Facsimile: +64 9 368 2710

For further information, please contact

Contact Point Product Safety Department

Emergency telephone number

Emergency Telephone 0 800 734 607 (ALL HOURS)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Not classified as a Dangerous Good under NZS 5433 Transport of Dangerous Goods on Land; NON-DANGEROUS GOODS.

Based on available information, not classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

GHS Classification

Label elements

Hazard statements**Other hazards which do not result in classification**

May form combustible dust concentrations in air
Dust can form an explosive mixture with air

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical name | CAS No. | Weight-% |
|------------------|----------|----------|
| Sodium gluconate | 527-07-1 | 99 |

4. FIRST AID MEASURES**Description of first aid measures**

| | |
|-----------------------------------|--|
| General advice | For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor. |
| Emergency telephone number | Poisons Information Center, New Zealand: 0800 764 766 Poisons Information Center, Australia: 13 11 26 |
| Inhalation | Remove to fresh air. Call a physician if symptoms occur. |
| Eye contact | Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if symptoms occur. |
| Skin contact | Wash skin with soap and water. Call a physician if symptoms occur. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur. |

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE FIGHTING MEASURES**Suitable Extinguishing Media**

Suitable Extinguishing Media Dry chemical, CO₂, water spray or alcohol-resistant foam.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

Specific hazards arising from the chemical Combustible solid. On burning will emit toxic fumes, including those of oxides of carbon. Dust can form an explosive mixture with air. Avoid generation of dust. Most organic dusts are combustible and according to the circumstances under which the combustion process

occurs, such materials may cause fires and/or dust explosions. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). Dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL) are applicable to dust clouds but only the LEL is of practical use; - this is because of the inherent difficulty of achieving homogeneous dust clouds at high temperatures (for dusts the LEL is often called the "Minimum Explosible Concentration", MEC).

When processed with flammable liquids/vapors/mists, ignitable (hybrid) mixtures may be formed with combustible dusts. Ignitable mixtures will increase the rate of explosion pressure rise and the Minimum Ignition Energy (the minimum amount of energy required to ignite dust clouds - MIE) will be lower than the pure dust in air mixture. The Lower Explosive Limit (LEL) of the vapour/dust mixture will be lower than the individual LELs for the vapors/mists or dusts.

Usually the initial or primary explosion takes place in a confined space such as plant or machinery, and can be of sufficient force to damage or rupture the plant. If the shock wave from the primary explosion enters the surrounding area, it will disturb any settled dust layers, forming a second dust cloud, and often initiate a much larger secondary explosion. All large-scale explosions have resulted from chain reactions of this type. Dry dust can be charged electrostatically by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport. Build-up of electrostatic charge may be prevented by bonding and grounding. Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting. A sudden release of statically charged materials from storage or process equipment, particularly at elevated temperatures and/ or pressure, may result in ignition especially in the absence of an apparent ignition source. One important effect of the particulate nature of powders is that the surface area and surface structure (and often moisture content) can vary widely from sample to sample, depending on how the powder was manufactured and handled which means that it is virtually impossible to use flammability data published in the literature for dusts. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Hazardous combustion products Carbon oxides.

Special protective actions for fire-fighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes, and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Do not touch or walk through spilled material. Keep people away from and upwind of spill/leak. Avoid generation of dust. Evacuate personnel to safe areas. Wash thoroughly after handling. Use personal protective equipment as required.

Other information Ventilate the area.

For emergency responders Shut off ignition sources. Clear area of all unprotected personnel. Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

| | |
|--------------------------------|--|
| Methods for containment | Stop leak if you can do it without risk. Remove ignition sources. Provide adequate ventilation. Keep out of drains, sewers, ditches and waterways. |
| Methods for cleaning up | Cover with damp absorbent (inert material, sand or soil). Vacuum or sweep material and place in a disposal container. Use non-sparking tools. Avoid generation of dust. Use personal protective equipment as required. Pick up and transfer to properly labelled containers. |

Precautions to prevent secondary hazards

| | |
|--|--|
| Prevention of secondary hazards | Clean contaminated objects and areas thoroughly observing environmental regulations. |
|--|--|

7. HANDLING AND STORAGE**Precautions for safe handling**

| | |
|---------------------------------------|--|
| Advice on safe handling | Avoid contact with skin and eyes. Avoid breathing dust or spray mist. Avoid generation of dust. May form flammable dust clouds in air. Take precautionary measures against static discharges. Take off contaminated clothing and wash before reuse. Wash thoroughly after handling. Use personal protection equipment. Ground and bond all lines and equipment associated with product system. All equipment should be non-sparking. All equipment may need to be explosion-proof based on a risk assessment. Handle in accordance with good industrial hygiene and safety practice. |
| General hygiene considerations | Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes, and clothing. Wear suitable gloves and eye/face protection. |

Conditions for safe storage, including any incompatibilities

| | |
|-------------------------------|--|
| Storage Conditions | Keep containers tightly closed in a cool, well-ventilated place. Store away from sources of heat or ignition. Store away from incompatible materials described in Section 10. Keep container closed when not in use. |
| Incompatible materials | Strong oxidizing agents. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

| | |
|------------------------|--|
| Exposure Limits | No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority. However, Workplace Exposure Standard(s) for particulate(s): |
|------------------------|--|

Particulates not otherwise classified: 8hr WES-TWA 10 mg/m³ (inhalable dust) or 3 mg/m³ (respirable dust)

As published by the New Zealand Workplace Health & Safety Authority.

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls

Engineering controls

Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as personal protective equipment

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK.



Eye/face protection

Glasses.

Hand protection

Impervious gloves.

Skin and body protection

Wear suitable protective clothing. Overalls. Boots.

Respiratory protection

If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

Environmental exposure controls

No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | |
|-----------------------|--------------------------|
| Physical state | Solid |
| Appearance | Granules |
| Color | White or Yellow |
| Odor | Odourless |
| Odor threshold | No information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---------------------------------------|--------------------------------|-------------------------|
| pH | 6.2-7.8 (10% aqueous solution) | None known |
| Melting point / freezing point | 206°C | None known |

| | | |
|---|-------------------|------------|
| Boiling point / boiling range | No data available | None known |
| Flash point | No data available | None known |
| Evaporation rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Vapor pressure | No data available | None known |
| Vapor density | No data available | None known |
| Relative density | No data available | None known |
| Water solubility | No data available | None known |
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| Autoignition temperature | No data available | None known |
| Hyphen | No data available | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |

Other information**10. STABILITY AND REACTIVITY**Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Possibility of hazardous reactions

Hazardous polymerization Hazardous polymerization does not occur.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid Avoid exposure to heat, sources of ignition, and open flame. Avoid contact with combustible substances. Dust formation. Static discharge (electrostatic discharge).

Incompatible materials

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Information on likely routes of exposure

| | |
|----------------------------|---|
| Product Information | No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are: |
| Inhalation | May cause irritation. |
| Eye contact | May cause irritation. Dust contact with the eyes can lead to mechanical irritation. |
| Skin contact | May cause irritation. |
| Ingestion | May cause gastrointestinal discomfort if consumed in large amounts. |
| Symptoms | No information available. |

Acute toxicity

Numerical measures of toxicity

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|--|-----------------|
| Skin corrosion/irritation | Not classified. |
| Serious eye damage/eye irritation | Not classified. |
| Respiratory or skin sensitization | Not classified. |
| Germ cell mutagenicity | Not classified. |
| Carcinogenicity | Not classified. |
| Reproductive toxicity | Not classified. |
| STOT - single exposure | Not classified. |
| STOT - repeated exposure | Not classified. |
| Aspiration hazard | Not classified. |

12. ECOLOGICAL INFORMATION

Ecotoxicity

| | |
|--------------------|--------------------------------|
| Ecotoxicity | Avoid contaminating waterways. |
|--------------------|--------------------------------|

Terrestrial ecotoxicity There is no data for this product.

Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation No information available.

Mobility

Mobility in soil No information available.

Other adverse effects

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with federal, state and local regulations.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT Not classified as a Dangerous Good under NZS 5433 Transport of Dangerous Goods on Land; NON-DANGEROUS GOODS.

IATA Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

IMDG Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

New Zealand

National regulations See section 8 for national exposure control parameters

International Inventories

| | |
|----------------------|--|
| NZIoC | This material is listed on the New Zealand Inventory of Chemicals. |
| TSCA | Contact supplier for inventory compliance status. |
| DSL/NDSL | Contact supplier for inventory compliance status. |
| EINECS/ELINCS | Contact supplier for inventory compliance status. |
| ENCS | Contact supplier for inventory compliance status. |
| IECSC | Contact supplier for inventory compliance status. |
| KECL | Contact supplier for inventory compliance status. |
| PICCS | Contact supplier for inventory compliance status. |
| AIIC | This material is listed on the Australian Inventory of Industrial Chemicals. |

Legend:**NZIoC** - New Zealand Inventory of Chemicals**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AIIC**- Australian Inventory of Industrial Chemicals**International Regulations****The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable**The Stockholm Convention on Persistent Organic Pollutants** Not applicable**The Rotterdam Convention** Not applicable**16. OTHER INFORMATION**

Supplier Safety Data Sheet 03/ 2021

Prepared By This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).**Issuing Date:** 05-Feb-2024**Reason(s) For Issue:** 5 Yearly Revised Primary SDS**Revision Note:**

The symbol (*) in the margin of this SDS indicates that this line has been revised.

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

| | | | |
|---------|-----------------------------|------|----------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | * | Skin designation |
| C | Carcinogen | | |

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Disclaimer

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

End of Safety Data Sheet