

SAFETY DATA SHEET CALCIUM LACTATE REVISION 4, DATE 10 JUN 2022

1. IDENTIFICATION

Product Name	Calcium Lactate
Other Names	2-Hydroxypropanoic acid calcium salt, pentahydrate; Calcium lactate, anhydrous [CAS#814-80-2]; Lactic acid calcium salt (2:1), pentahydrate; Propanoic acid, 2-hydroxy-, calcium salt (2:1), pentahydrate [CAS#5743-47-5]
Uses	Mineral supplement, speciality chemical.
Chemical Family	No Data Available
Chemical Formula	C ₆ H ₁₀ CaO ₆ .5H ₂ O
Chemical Name	Calcium lactate, pentahydrate
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Jiangsu Khonor Chemicals Co., Limited	Rm 1902 Easey Comm Bldg, 253-261, Hennessy RD Wanchai HK	+86 19851820538

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Jiangsu Khonor Chemicals Co., Limited	Rm 1902 Easey Comm Bldg, 253-261, Hennessy RD Wanchai HK	+86 19851820538

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

Not Scheduled

Redox Ltd
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Locked Bag 15 Minto NSW 2566 Australia
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All Deliveries: 4 Holmes Road Minto NSW 2566 Australia

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Australia	New Zealand	Malaysia
Adelaide	Auckland	Kuala Lumpur
Brisbane	Christchurch	USA
Melbourne	Hawke's Bay	Los Angeles
Perth	UK	Oakland
Sydney	London	Mexico
		Saltillo



Globally Harmonised System

Hazard Classification	NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Signal Word	None

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Calcium lactate, pentahydrate	C6H10CaO6.5H2O	63690-56-2	>=98 %
Water	H2O	7732-18-5	Balance %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then give a glass of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, give further water. Get medical advice/attention if you feel unwell.
Eye	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower eyelids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.
Skin	IF ON SKIN: Remove and isolate contaminated clothing and shoes. Flush skin with running water/shower. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention.
Advice to Doctor	Treat symptomatically. Show this safety data sheet (SDS) to the doctor in attendance.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.
Flammability Conditions	Combustible solid; may burn but does not ignite readily.
Extinguishing Media	Use dry chemical, Carbon dioxide, foam or water spray for extinction.
Fire and Explosion Hazard	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Fire may produce irritating and/or toxic gases, including Carbon oxides.

Hazardous Products of Combustion

Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may cause pollution.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. ELIMINATE all ignition sources (if dust clouds can occur). Do not touch or walk through spilled material. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
Clean Up Procedures	Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal (see SECTION 13).
Containment	Stop leak if safe to do so. Prevent dust cloud.
Decontamination	After cleaning, flush away traces with water.
Environmental Precautionary Measures	Prevent entry into drains and waterways. If contamination of sewers or waterways has occurred, advise local emergency services.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
Personal Precautionary Measures	Use personal protective equipment (see SECTION 8).

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Minimise dust generation and accumulation. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment (see SECTION 8). Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Storage	Keep in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed when not in use - check regularly for spills. Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (see SECTION 10).
Container	Plastic, paper, fibre drums or boxes.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No specific exposure standards are available for this product. For dusts from solid substances without specific occupational exposure standards: - Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m ³ (measured as inhalable dust). - New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m ³ ; TWA = 3 mg/m ³ (respirable dust).
Exposure Limits	No Data Available
Biological Limits	No information available.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing

dispersion of it into the general work area.

Personal Protection Equipment

- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Dust mask/particulate respirator (refer to AS/NZS 1715 & 1716).
- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses.
- Hand protection: Handle with gloves. Recommended: Impervious gloves.
- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Overalls, safety shoes.

Special Hazards Precautions

No information available.

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Powder/agglomerate/granular
Odour	Slight/none
Colour	White
pH	6.0 - 8.0 (10% aqueous solution)
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	>200 °C
Freezing Point	No Data Available
Solubility	Soluble in water (6 - 9 g/100 g water) 25°C
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	300 - 500 kg/m ³
Corrosion Rate	No Data Available
Decomposition Temperature	>200 °C
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available

Additional Characteristics	Explosion limits: - Min. ignition energy: >8,700 mJ - Min. ignition temperature: 610 °C - Max. explosion over-pressure: 5.1 bar - Max. pressure increase rate: 105 bar/s - Dust explosion constant: 29 bar m/s - Dust explosion class: ST 1
Potential for Dust Explosion	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	Combustible solid; may burn but does not ignite readily.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating and/or toxic gases, including Carbon oxides.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	No information available.
Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Avoid generating dust. Keep away from heat and sources of ignition.
Materials to Avoid	Incompatible/reactive with strong oxidising agents.
Hazardous Decomposition Products	Fire/decomposition may produce irritating and/or toxic gases, including Carbon oxides.
Hazardous Polymerisation	Hazardous polymerisation does not occur.

11. TOXICOLOGICAL INFORMATION

General Information	Information on possible routes of exposure: - Ingestion: No adverse effects expected; however, large amounts may cause nausea and vomiting. - Eye contact: May cause eye irritation with susceptible persons. May cause physical irritation to the eyes. - Skin contact: Repeated or prolonged skin contact may lead to irritation. - Inhalation: Breathing in dust may cause irritation of respiratory tract. Long-term effects: Did not show carcinogenic effects in animal experiments. Based on tests with L-lactic acid and its salts, there is no evidence to suggest carcinogenic nor mutagenic properties from lactic acid itself nor from the lactate portion of its salts. *Health injuries are not known or expected under normal use.
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecological injuries are not known or expected under normal use.

Ecotoxicity**Persistence/Degradability**

Product is a salt of lactic acid which is readily biodegradable.

Mobility

Completely soluble.

Environmental Fate

Slightly hazardous to water - Prevent entry into drains and waterways.

Bioaccumulation Potential

No information available.

Environmental Impact

No Data Available

13. DISPOSAL CONSIDERATIONS**General Information**

Dispose of contents/container in accordance with local/regional/national regulations.

*Can be landfilled or incinerated, or can be disposed as waste water, when in compliance with local regulations.

Special Precautions for Land Fill

After cleaning, empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION**Land Transport (Australia)**

ADG Code

Proper Shipping Name

Calcium Lactate

Class

No Data Available

Subsidiary Risk(s)

No Data Available

No Data Available

UN Number

No Data Available

Hazchem

No Data Available

Pack Group

No Data Available

Special Provision

No Data Available

Comments

NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (Malaysia)

ADR Code

Proper Shipping Name

Calcium Lactate

Class

No Data Available

Subsidiary Risk(s)

No Data Available

No Data Available

UN Number

No Data Available

Hazchem

No Data Available

Pack Group

No Data Available

Special Provision

No Data Available

Comments

NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (New Zealand)

NZS5433

Proper Shipping Name

Calcium Lactate

Class

No Data Available

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Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (United States of America)

US DOT

Proper Shipping Name	Calcium Lactate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Sea Transport

IMDG Code

Proper Shipping Name	Calcium Lactate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No
Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.

Air Transport

IATA DGR

Proper Shipping Name	Calcium Lactate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for AIR transport.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification

NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

15. REGULATORY INFORMATION**General Information**

No Data Available

Poisons Schedule (Aust)

Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code

Not Hazardous

National/Regional Inventories**Australia (AIC)**

Listed

Canada (DSL)

Listed

Canada (NDSL)

Not Listed

China (IECSC)

Listed

Europe (EINECS)

212-406-7

Europe (REACH)

Listed

Japan (ENCS/METI)

Listed

Korea (KECI)

Listed

Malaysia (List of Classified Substances)

Not Listed

New Zealand (NZIoC)

Listed

Philippines (PICCS)

Listed

Taiwan (TCSI)

Listed

USA (TSCA)

Listed

Mexico (INSQ)

Not Determined

16. OTHER INFORMATION**Related Product Codes**

CALACT1000, CALACT1001, CALACT1002, CALACT1003, CALACT1004, CALACT2000, CALACT2100, CALACT3000, CALACT3001, CALACT3002, CALACT3100, CALACT3101, CALACT3150, CALACT4000, CALACT4001, CALACT4100, CALACT5000, CALACT9000

Revision

4

Revision Date

10 Jun 2022

Key/Legend

< Less Than

> Greater Than

AICS Australian Inventory of Chemical Substances
atm Atmosphere
CAS Chemical Abstracts Service (Registry Number)
cm² Square Centimetres
CO₂ Carbon Dioxide
COD Chemical Oxygen Demand
deg C (°C) Degrees Celcius
EPA (New Zealand) Environmental Protection Authority of New Zealand
deg F (°F) Degrees Farenheit
g Grams
g/cm³ Grams per Cubic Centimetre
g/l Grams per Litre
HSNO Hazardous Substance and New Organism
IDLH Immediately Dangerous to Life and Health
immiscible Liquids are insoluable in each other.
inHg Inch of Mercury
inH₂O Inch of Water
K Kelvin
kg Kilogram
kg/m³ Kilograms per Cubic Metre
lb Pound
LC₅₀ LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD₅₀ LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.
ltr or L Litre
m³ Cubic Metre
mbar Millibar
mg Milligram
mg/24H Milligrams per 24 Hours
mg/kg Milligrams per Kilogram
mg/m³ Milligrams per Cubic Metre
Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.
mm Millimetre
mmH₂O Millimetres of Water
mPa.s Millipascals per Second
N/A Not Applicable
NIOSH National Institute for Occupational Safety and Health
NOHSC National Occupational Heath and Safety Commission
OECD Organisation for Economic Co-operation and Development
Oz Ounce
PEL Permissible Exposure Limit
Pa Pascal
ppb Parts per Billion
ppm Parts per Million
ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours
psi Pounds per Square Inch
R Rankine
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value
tne Tonne
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight