

Infosafe No™ 1CH3J Issue Date : September 2022 RE-ISSUED by CHEMSUPP

Product Name **LACTOSE Monohydrate**

Not classified as hazardous

Section 1 - Identification

Product Identifier	LACTOSE Monohydrate	
Company Name	CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)	
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia	
Telephone/Fax Number	Tel: (08) 8440-2000	
Emergency Phone Number	CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)	
E-mail Address	www.chemsupply.com.au	
Recommended use of the chemical and restrictions on use	Pharmacy, infant foods, bacteriology, baking and confectionery, margarine and butter manufacture, manufacturing of penicillin, yeast, edible protein and riboflavin, culture media, adsorbant in chromatography and laboratory reagent.	
Other Names	<u>Name</u>	<u>Product Code</u>
	LACTOSE Edible White FG	LP031
	Sugar of milk	
	LACTOSE Monohydrate LR	LL031
	Lactobiose	
	Milk sugar	
	D(+)-Lactose	
	LACTOSE Monohydrate AR	LA031

Other Information

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

Section 2 - Hazard(s) Identification

GHS Classification of the Substance/Mixture	Not classified as hazardous according to the Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004) 3rd Edition, Safe Work Australia.
	Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Section 3 - Composition and Information on Ingredients

Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Lactose monohydrate	64044-51-5	100 %

Section 4 - First Aid Measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
Ingestion	Rinse mouth with water. Seek medical attention if symptoms occur, or if large amounts ingested.
Skin	Wash affected area thoroughly with copious amounts of running water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
First Aid Facilities	Eye wash and normal washroom facilities.

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Advice to Doctor Treat symptomatically based on judgement of doctor and individual reactions of the patient.

Other Information For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

Section 5 - Firefighting Measures

Hazards from Combustion Irritating and highly toxic fumes and gases, including carbon monoxide and carbon dioxide (CO, CO2).

Products

Specific Methods Small fire: Use dry chemical, CO2, water spray or foam.
Large fire: Use water spray, fog or foam.
If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out.

Specific Hazards Arising from the Chemical May burn but do not ignite readily. Runoff may pollute waterways. Fire may produce irritating, poisonous and/or corrosive fumes. As with most organic solids, the substance is slightly flammable to flammable at elevated temperatures or by contact with an ignition source.

Decomposition Temperature Becomes anhydrous at 120 °C.
Decomposes at 203.5 °C; > 219 °C.

Section 6 - Accidental Release Measures

Personal Precautions Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.

Personal Protection Use personal protective equipment listed in Section 8.

Clean-up Methods - Small Spillages Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.

Section 7 - Handling and Storage

Precautions for Safe Handling Avoid ingestion and inhalation of dust. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities Store in tightly closed containers, in a cool, dry, well-ventilated area away from incompatible substances. Store away from strong odours. Keep away from foodstuffs, beverages and feed.

Section 8 - Exposure Controls and Personal Protection

Other Exposure Information A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by Safe Work Australia for this product. There is a blanket limit of 10 mg/m³ for dusts when limits have not otherwise been established.

Engineering Controls In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.

Respiratory Protection Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

Eye and Face Protection The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Hand Protection Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Personal Protective Equipment Final choice of personal protective equipment will depend on individual circumstances and/or according to risk assessments undertaken.

Body Protection Clean clothing or protective clothing should be worn. Clothing for protection

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Hygiene Measures against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Section 9 - Physical and Chemical Properties

Form Solid

Appearance Colourless, white, off-white, or cream crystalline powder.

Odour Odourless.

Melting Point 203.5°C (decomposition); 219 °C (decomposition).

Boiling Point Decomposes.

Decomposition Temperature Becomes anhydrous at 120 °C.
Decomposes at 203.5 °C; > 219 °C.

Solubility in Water Very soluble (161 g/l (20 °C)).

Solubility in Organic Solvents Insoluble in ether and chloroform. Very slightly soluble in alcohol.

Specific Gravity 1.525

pH 4.0-6.5 (100 g/l, H₂O, 20 °C).

Vapour Pressure Negligible.

Evaporation Rate Negligible.

Volatile Component 0 %vol @ 21 °C

Partition Coefficient: n-octanol/water (log value) log Pow: -5.03 (anhydrous substance) (calculated).

Flammability Combustible.

Auto-ignition Temperature 390 °C; 470 °C.

Explosion Properties Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Lower explosive limit: 0.125 g/l in air.

Molecular Weight 360.32

Particle Size 15 - 300 microns.

Other Information Taste: slightly sweet taste.
Bulk density: 500 kg/m³.

Section 10 - Stability and Reactivity

Chemical Stability Stable under normal temperatures, pressures and ordinary conditions of use and storage. Readily absorbs odours.

Possibility of Hazardous Reactions Reactive with oxidizing agents.

Conditions to Avoid Avoid contact with moisture. Keep away from heat and sources of ignition.

Incompatible Materials Oxidizing agents.

Hazardous Decomposition Products Irritating and highly toxic fumes and gases, including carbon monoxide and carbon dioxide (CO, CO₂).

Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

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Ingestion	Ingestion of large amounts may cause gastrointestinal irritation, causing nausea and vomiting. The toxicological properties of this substance have not been fully investigated.
Inhalation	Inhalation of high concentrations of dusts may irritate the respiratory system. The toxicological properties of this substance have not been fully investigated.
Skin	Skin contact may cause mechanical irritation or skin irritation to some super-sensitive persons, resulting in redness and itching. The toxicological properties of this material have not been fully investigated.
Eye	Not expected to be a health hazard. May cause mechanical or slight eye irritation. The toxicological properties of this material have not been fully investigated.
Carcinogenicity	Not listed in the IARC Monographs.
Chronic Effects	Prolonged inhalation of dust can cause asthmatic symptoms. Repeated or prolonged exposure to the substance can produce lung damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation.

Section 12 - Ecological Information

Ecological Information	No ecological problems are to be expected when the product is handled and used with due care and attention.
Ecotoxicity	Quantitative data on the ecological effect of this product are not available.
Persistence and Degradability	Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. Products of degradation: These products are carbon oxides (CO, CO ₂) and water. Toxicity of the products of biodegradation: The product itself and its products of degradation are not toxic.
Mobility	Distribution: log Pow: -5.03 (anhydrous substance) (calculated).
Bioaccumulative Potential	No bioaccumulation is to be expected (log Pow <1).
Environmental Protection	Prevent this material entering waterways, drains and sewers.

Section 13 - Disposal Considerations

Disposal Considerations	Dispose of according to relevant local, state and federal government regulations.
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Section 14 - Transport Information

Transport Information	Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
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Section 15 - Regulatory Information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS).
Poisons Schedule	Not Scheduled

Section 16 - Any Other Relevant Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'. Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.
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Contact Person/Point Paul McCarthy Ph. (08) 8440 2000 **DISCLAIMER STATEMENT:**
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Empirical Formula & Structural Formula C₁₂H₂₂O₁₁ · H₂O

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