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ACCT: 742982001

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CAT NO: L5500

PO NBR: N/A

## \*\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*\*

a-D-(+)-Lactose Monohydrate  
45372

## \*\*\*\* SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION \*\*\*\*

MSDS Name: a-D-(+)-Lactose Monohydrate

Catalog Numbers:

S71955, S71956, L5 500, L5-500, L5500, L6212, L6500

Synonyms:

Milk Sugar; Lactin; Lactobiose; 4-(beta-d-Galactosido)-d-Glucose;

Saccharum Lactin

Company Identification: Fisher Scientific

1 Reagent Lane

Fairlawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For international CHEMTREC assistance, call: 703-527-3887

## \*\*\*\* SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS \*\*\*\*

CAS#	Chemical Name	%	EINECS#
5989-81-1	alpha-d-Lactose Monohydrate	100	unlisted

## \*\*\*\* SECTION 3 - HAZARDS IDENTIFICATION \*\*\*\*

## EMERGENCY OVERVIEW

Appearance: white.

Caution! May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

Target Organs: None.

Potential Health Effects

Eyes:

May cause mild eye irritation. Low hazard for normal industrial handling.

Skin:

May cause mild skin irritation. Low hazard for usual industrial handling.

Ingestion:

Ingestion of large amounts may cause gastrointestinal irritation. Low hazard for usual industrial handling.

Inhalation:

May cause respiratory tract irritation. Low hazard for usual industrial handling.

Chronic:

No information found.

## \*\*\*\* SECTION 4 - FIRST AID MEASURES \*\*\*\*

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid.

Skin:

Get medical aid if irritation develops or persists. Flush skin with plenty of soap and water.

Ingestion:

Get medical aid if irritation or symptoms occur.

Inhalation:

Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician:

Treat symptomatically and supportively.

## \*\*\*\* SECTION 5 - FIRE FIGHTING MEASURES \*\*\*\*

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dust can be an explosion hazard when exposed to heat or flame.

Extinguishing Media:

Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

NFPA Rating: Not published.

Explosion Limits: Lower: Not available.

Upper: Not available.

## \*\*\*\* SECTION 6 - ACCIDENTAL RELEASE MEASURES \*\*\*\*

General Information: Use proper personal protective equipment as indicated

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in Section 8.

Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal.

## \*\*\*\* SECTION 7 - HANDLING and STORAGE \*\*\*\*

Handling:

Use with adequate ventilation.

Storage:

Store in a cool, dry place. Keep containers tightly closed.

## \*\*\*\* SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION \*\*\*\*

Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

## Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
alpha-d-Lactose Monohydrate	none listed	none listed	none listed

OSHA Vacated PELs:

alpha-d-Lactose Monohydrate:

No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

## \*\*\*\* SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES \*\*\*\*

Physical State:	Solid
Appearance:	white
Odor:	odorless
pH:	Not available.
Vapor Pressure:	Negligible.
Vapor Density:	Not available.
Evaporation Rate:	Negligible.
Viscosity:	Not available.
Boiling Point:	Not applicable.
Freezing/Melting Point:	Decomposes.
Decomposition Temperature:	201-219 deg C
Solubility:	Soluble in water.
Specific Gravity/Density:	1.525
Molecular Formula:	C12H22O11.H2O
Molecular Weight:	342.1474

## \*\*\*\* SECTION 10 - STABILITY AND REACTIVITY \*\*\*\*

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials.

Incompatibilities with Other Materials:

May cause explosive reactions when mixed with strong oxidizers.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

## \*\*\*\* SECTION 11 - TOXICOLOGICAL INFORMATION \*\*\*\*

RTECS#:

CAS# 5989-81-1 unlisted.

LD50/LC50:

Not available.

Carcinogenicity:

alpha-d-Lactose Monohydrate -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology:

No data available.

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Other Studies:  
No data available.

\*\*\*\* SECTION 12 - ECOLOGICAL INFORMATION \*\*\*\*

Environmental Fate:  
Not available.

\*\*\*\* SECTION 13 - DISPOSAL CONSIDERATIONS \*\*\*\*

Dispose of in a manner consistent with federal, state, and local regulations.  
RCRA D-Series Maximum Concentration of Contaminants:  
None listed.  
RCRA D-Series Chronic Toxicity Reference Levels: None listed.  
RCRA F-Series: None listed.  
RCRA P-Series: None listed.  
RCRA U-Series: None listed.  
Not listed as a material banned from land disposal according to RCRA.

\*\*\*\* SECTION 14 - TRANSPORT INFORMATION \*\*\*\*

US DOT  
No information available  
IMO  
No information available.  
IATA  
No information available.  
RID/ADR  
No information available.  
Canadian TDG  
No information available.

\*\*\*\* SECTION 15 - REGULATORY INFORMATION \*\*\*\*

US FEDERAL

TSCA  
CAS# 5989-81-1 is not on the TSCA Inventory. It is a hydrate and exempt from TSCA Inventory requirements (40CFR270.3(u)(2)).  
Health & Safety Reporting List  
None of the chemicals are on the Health & Safety Reporting List.  
Chemical Test Rules  
None of the chemicals in this product are under a Chemical Test Rule.  
Section 12b  
None of the chemicals are listed under TSCA Section 12b.  
TSCA Significant New Use Rule  
None of the chemicals in this material have a SNUR under TSCA.  
SARA  
Section 302 (RQ)  
None of the chemicals in this material have an RQ.  
Section 302 (TPQ)  
None of the chemicals in this product have a TPQ.  
Section 313  
No chemicals are reportable under Section 313.  
Clean Air Act:  
This material does not contain any hazardous air pollutants.  
This material does not contain any Class 1 Ozone depleters.  
This material does not contain any Class 2 Ozone depleters.  
Clean Water Act:  
None of the chemicals in this product are listed as Hazardous Substances under the CWA.  
None of the chemicals in this product are listed as Priority Pollutants under the CWA.  
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.  
OSHA:  
None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

alpha-D-Lactose Monohydrate is not present on state lists from CA, PA, MN, MA, FL, or NJ.  
California No Significant Risk Level:  
None of the chemicals in this product are listed.  
European/International Regulations  
European Labeling in Accordance with EC Directives  
Hazard Symbols: Not available.  
Risk Phrases:  
Safety Phrases:  
WGK (Water Danger/Protection)  
CAS# 5989-81-1:  
Canada  
None of the chemicals in this product are listed on the DSL/NDL list.  
This product has a WHMIS classification of Not controlled.  
CAS# 5989-81-1 is not listed on Canada's Ingredient Disclosure List.  
Exposure Limits

\*\*\*\* SECTION 15 - ADDITIONAL INFORMATION \*\*\*\*

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MSDS Creation Date: 6/26/1995 Revision #2 Date: 9/02/1997

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