

D-Mannitol

 CAS No 69-65-8
 EC No 200-711-8

Hazard rating of standard rating organizations (if applicable):

Health 1	Flammability 1	Instability 0	Physical hazards N/A
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SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Description: D-Mannitol

Cat No. : 125340000; 125340010; 125340025; 125340050; 125341000; 125345000
Synonyms D-Manninol; Isotol
CAS No 69-65-8
Molecular Formula C6 H14 O6

Supplier

UK entity/business name
 Fisher Scientific UK
 Bishop Meadow Road,
 Loughborough, Leicestershire LE11 5RG, United Kingdom

EU entity/business name
 Thermo Fisher Scientific
 Janssen Pharmaceuticaaan 3a, 2440 Geel, Belgium

Recommended Use Laboratory chemicals.
Uses advised against No Information available

Emergency Telephone Number For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

E-mail address begel.sdsdesk@thermofisher.com

SECTION 2. HAZARD IDENTIFICATION
Classification of the substance or mixture

Based on available data, the classification criteria are not met

Label Elements

None required

This product does not contain any known or suspected endocrine disruptors.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
D-Mannitol	69-65-8	>95

SECTION 4. FIRST AID MEASURES**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.

Skin Contact

Rinse skin with water. Get medical attention if symptoms occur.

Inhalation

Remove to fresh air. Get medical attention if symptoms occur. If not breathing, give artificial respiration.

Ingestion

Do NOT induce vomiting. Get medical attention if symptoms occur.

Most important symptoms and effects

No information available.

Self-Protection of the First Aider

No special precautions required.

Notes to Physician

Treat symptomatically.

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

Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons

No information available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

Environmental Precautions

Avoid release to the environment.

Methods for Containment and Clean Up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

Refer to protective measures listed in Sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

Specific Use(s)

Use in laboratories

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control Parameters****Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

Exposure Controls**Engineering Measures**

None under normal use conditions.

Personal protective equipment

Eye Protection Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	See manufacturers recommendations	-	EN 374	(minimum requirement)
Neoprene				
Natural rubber				
PVC				

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection No protective equipment is needed under normal use conditions.

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Recommended Filter type: Particle filter

Small scale/Laboratory use Maintain adequate ventilation

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White	
Physical State	Solid	
Odor	Odorless	
Odor Threshold	No data available	
pH	No information available	
Melting Point/Range	165 - 170 °C / 329 - 338 °F	
Softening Point	No data available	
Boiling Point/Range	No information available	
Flash Point	No information available	Method - No information available
Evaporation Rate	Not applicable	Solid
Flammability (solid,gas)	No information available	
Explosion Limits	No data available	
Vapor Pressure	No data available	
Vapor Density	Not applicable	Solid
Specific Gravity / Density	No data available	
Bulk Density	No data available	
Water Solubility	Soluble	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Viscosity	Not applicable	Solid
Explosive Properties	No information available	
Oxidizing Properties	No information available	
Molecular Formula	C6 H14 O6	
Molecular Weight	182.17	

SECTION 10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Hazardous Reactions	None under normal processing.
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to Avoid	Incompatible products. Excess heat. Avoid dust formation.
Materials to avoid	Strong oxidizing agents.

Hazardous Decomposition Products Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11. TOXICOLOGICAL INFORMATION

Product Information

Information on expected route of exposure

Inhalation	May cause irritation of respiratory tract.
Ingestion	May cause irritation.
Eyes	May cause irritation.
Skin	May cause irritation.

(a) acute toxicity;

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
D-Mannitol	LD50 = 13500 mg/kg (Rat)		

SAFETY DATA SHEET**D-Mannitol**

(b) skin corrosion/irritation;	No data available		
(c) serious eye damage/irritation;	No data available		
(d) respiratory or skin sensitization;			
Respiratory	No data available		
Skin	No data available		
(e) germ cell mutagenicity;	No data available		
(f) carcinogenicity;	No data available		
	There are no known carcinogenic chemicals in this product		
(g) reproductive toxicity;	No data available		
(h) STOT-single exposure;	No data available		
(i) STOT-repeated exposure;	No data available		
Target Organs	No information available.		
(j) aspiration hazard;	Not applicable		
	Solid		

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects	Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.
Persistence and Degradability	
Persistence	Soluble in water, Persistence is unlikely, based on information available.
Bioaccumulative Potential	Bioaccumulation is unlikely
Mobility in soil	The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility Highly mobile in soils
Endocrine Disruptor Information	This product does not contain any known or suspected endocrine disruptors
Persistent Organic Pollutant	This product does not contain any known or suspected substance
Ozone Depletion Potential	This product does not contain any known or suspected substance

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.
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Contaminated Packaging Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.

National Technical Regulation on Hazardous Waste Thresholds Not applicable.

Other Information Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14. TRANSPORT INFORMATION

Road and Rail Transport Not Regulated

IMDG/IMO Not regulated

IATA Not regulated

Special Precautions for User No special precautions required

SECTION 15. REGULATORY INFORMATION

National Regulations

International Inventories

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

Component	Vietnam - National Chemicals Inventory (NCI) (DRAFT)	The Inventory of Hazardous Chemicals (2015 Edition)	TCSI	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
D-Mannitol	X	-	X	X	200-711-8	X	X	X	X	X	X	KE-23061

Component	CAS No	Persistent Organic Pollutant	Ozone Depletion Potential	Rotterdam Convention (PIC)
D-Mannitol	69-65-8	Not applicable	Not applicable	Not applicable

Compliance with technical regulations

- Fully comply with the provisions of the law on safety, health and environment according to:
- Law on chemicals dated November 21, 2007
- Decree 113/2017/ND-CP dated October 9, 2017 of the Government detailing and guiding the implementation of a number of articles of the Law on Chemicals.
- Decree No. 82/2022/ND-CP dated October 18, 2022 of the Government Amending and supplementing a number of articles of Decree No. 113/2017/ND-CP dated October 9, 2017 of the Government detailing and guiding the implementation of a number of articles of the Law on Chemicals.
- Circular 32/2017/TT-BCT dated December 28, 2017 of the Ministry of Industry and Trade detailing and guiding the implementation of a number of articles of the Law on Chemicals and Decree 113/2017/ND-CP dated October 9, 2017 of the Government detailing and guiding the implementation of a number of articles of the Law on Chemicals.

- Circular No. 17/2022/TT-BCT dated October 27, 2022 of the Ministry of Industry and Trade Amending and supplementing a number of articles of Circular No. 32/2017/TT-BCT dated December 28, 2017 of the Minister of Industry and Trade detailing and guiding the implementation of a number of articles of the Law on Chemicals and Decree No. 113/2017/ND-CP dated October 9, 2017 of the Government detailing and guiding the implementation of a number of articles of the Law on Chemicals.
- Decree No. 34/2024/ND-CP dated March 31, 2024 of the Government stipulating the list of dangerous goods and transportation of dangerous goods by road motor vehicles and inland waterway vehicles.
- Decree No. 161/2024/ND-CP dated December 18, 2024 of the Government stipulates the list of dangerous goods, transportation of dangerous goods and procedures for granting licenses and certificates of completion of training programs for drivers or escorts transporting dangerous goods on roads.
- National technical regulation QCVN 05A:2020/BCT on Safety in production, trading, use, storage and transportation of hazardous chemicals.
- Circular promulgating Amendment 1: 2024 QCVN 05A:2020/BCT National technical regulation on safety in production, trading, use, storage and transportation of hazardous chemicals.
- Control Certificate for purchasing and selling toxic chemicals.
- And relevant legal provisions.

SECTION 16. OTHER INFORMATION

Creation Date 19-Nov-2009
Revision Date 21-Mar-2025
Revision Summary Not applicable.

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - (Volatile Organic Compound)

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

This safety data sheet was created pursuant to the requirements of: Decree No. 113/2017/ND - CP (2017-10-30), amended by Decree 82/2022 /ND-CP

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other

SAFETY DATA SHEET

D-Mannitol

materials or in any process, unless specified in the text

End of Safety Data Sheet