

# Material Safety Data Sheet



LACTOSE (MONOHYDRATE)

VERSION : 05  
REVISION DATE : 14/06/2025  
EFFECTIVE DATE : 16/06/2025

Product Code : 15220

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## 1. Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Trade name : LACTOSE (MONOHYDRATE)  
Product code : 15220  
Identification of the product : LACTOSE (MONOHYDRATE)  
CAS No : 10039-26-6  
EC No. : 600-087-0

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

### 1.3. Details of the supplier of the safety data sheet

#### Company identification

MOLYCHEM INDIA LLP  
Office: Maker Tower 'E', 41-A2, 4th Floor, Above Maker Arcade, Cuffe Parade, Mumbai 400 005 (INDIA)  
Tel: +91 22 4066 8111, 2205 7772 .  
Email : [info@molychem.net](mailto:info@molychem.net)  
Works: Plot No. B/9, Badlapur M.I.D.C.,  
OPP.Shobhavat Textile Co., Kulgaon, Badlapur (E),  
Dist.-Thane-421 503.

### 1.4. Emergency telephone number

Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm)

## 2. Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]  
Not classified

Full text of H- and EUH-statements: see section 16

#### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]  
No labelling applicable

### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

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## 3. Composition/information on ingredients

### 3.1. Substances

Name : LACTOSE (MONOHYDRATE)  
CAS-No : 10039-26-6

### 3.2. Mixtures

Not applicable

## 4. First aid measures

### 4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.  
First-aid measures after skin contact : Wash skin with plenty of water  
First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.  
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure. Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.  
Symptoms/effects after skin contact : None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.  
Symptoms/effects after eye contact : None under normal conditions. Dust from this product may cause eye irritation.  
Symptoms/effects after ingestion : None under normal conditions.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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## 5. Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam  
Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.  
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## 6. Accidental release measures

General measures : Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Use personal protective equipment as required. For further information refer to section 8: "Exposure controls/ personal protection"  
Emergency procedures : Evacuate unnecessary personnel.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.  
Other information : Dispose of materials or solid residues at an authorized

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site.

## 6.4. Reference to other sections

For further information refer to section 13.

## 7. Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Protect from moisture  
Hygiene measures : Always wash hands after handling the product. Do not eat, drink or smoke when using this product.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.  
Storage conditions : Keep cool. Protect from sunlight.  
Storage away from : Direct sunlight.

### 7.3. Specific end use(s)

No additional information available

## 8. Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

Ensure good ventilation of the work station.

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## 8.2.2. Personal protection equipment

Eye protection : Chemical goggles or safety glasses  
Hand protection : Wear protective gloves  
Skin protection : Wear suitable protective clothing  
Respiratory protection : Wear appropriate mask. [In case of inadequate ventilation] wear respiratory protection.  
Thermal hazards : No additional information available

## 8.2.3 Environmental exposure controls

Avoid release to the environment

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state : Solid  
Appearance : powder or crystalline powder.  
Molecular mass : 360.31 g/mol  
Colour : White to almost white cream or yellowish white  
Odour : Odourless  
Odour threshold : Not available  
pH : 4 – 6 at 20 °C  
Melting point : 200 – 202 °C  
Freezing point : Not applicable  
Boiling point : Not available  
Flash point : 357.8 °C  
Auto-ignition temperature : 390 °C  
Decomposition temperature : Not available  
Flammability (solid, gas) : Not available  
Vapour pressure : Not available  
Relative vapour density at 20 °C : Not applicable  
Relative density : Not available  
Density : 1.525 g/cm<sup>3</sup> at 20 °C  
Solubility : Water: 161 g/l at 20 °C - soluble  
Viscosity, kinematic : Not applicable  
Explosive limits : Not applicable

### 9.2. Other information

No additional information available

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## 10. Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Direct sunlight.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
Additional information	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: 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

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the

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Hazardous to the aquatic environment, short-term (acute) : environment.  
: Not classified  
Hazardous to the aquatic environment, long-term (chronic) : Not classified

## 12.2. Persistence and degradability

No additional information available

## 12.3. Bioaccumulative potential

No additional information available

## 12.4. Mobility in soil

No additional information available

## 12.5 Results of PBT and vPvB assessment

No additional information available

## 12.6 Other adverse effects

No additional information available

## 13. Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions  
Sewage disposal recommendations : Disposal must be done according to official regulations  
Product/Packaging disposal recommendations : Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.  
Additional information : Do not re-use empty containers.

## 14. Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated  
Proper Shipping Name (IMDG) : Not regulated  
Proper Shipping Name (IATA) : Not regulated  
Proper Shipping Name (ADN) : Not regulated

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Proper Shipping Name (RID) : Not regulated

## 14.3. Transport hazard class(es)

### ADR

Transport hazard class(es) (ADR) : Not regulated

### IMDG

Transport hazard class(es) (IMDG) : Not regulated

### IATA

Transport hazard class(es) (IATA) : Not regulated

### ADN

Transport hazard class(es) (ADN) : Not regulated

### RID

Transport hazard class(es) (RID) : Not regulated

## 14.4. Packing group

Packing group (ADR) : Not regulated

Packing group (IMDG) : Not regulated

Packing group (IATA) : Not regulated

Packing group (ADN) : Not regulated

Packing group (RID) : Not regulated

## 14.5. Environmental hazards

Other information : No supplementary information available

## 14.6. Special precautions for user

### Overland transport

Not regulated

### Transport by sea

Not regulated

### Air transport

Not regulated

### Inland waterway transport

Not regulated

### Rail transport

Not regulated

## 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## 15. Regulatory information

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

#### 15.1.1 EU-Regulations

Not listed on REACH Annex XVII

Not listed on REACH Annex XIV (Authorisation List)

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Not listed on the REACH Candidate List

Not listed on the PIC list (Regulation EU 649/2012)

Not listed on the POP list (Regulation EU 2019/1021)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

## 15.1.2. National regulations

### Germany

Water hazard class (WGK)

: WGK 1, Slightly hazardous to water  
(Classification according to AwSV; ID No. 6)

Hazardous Incident Ordinance (12. BImSchV)

: Is not subject of the Hazardous Incident Ordinance  
(12. BImSchV)

### Netherlands

SZW-lijst van kankerverwekkende stoffen

: The substance is not listed

SZW-lijst van mutagene stoffen

: The substance is not listed

SZW-lijst van reprotoxische stoffen – Borstvoeding

: The substance is not listed

SZW-lijst van reprotoxische stoffen –

: The substance is not listed

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen –

: The substance is not listed

Ontwikkeling

## 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## 16. Other information

### Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor

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BLV	Biological limit value
BOD	Biochemical oxygen demand
COD	Chemical oxygen demand
COD	Chemical oxygen demand
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

## Full text of H- and EUH-statements

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

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EUH066

Repeated exposure may cause skin dryness or cracking.

Safety Data Sheet (SDS), EU This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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