

SAFETY DATA SHEET

LALSTIM OSMO^{SP}

Version: 2
Version date: 2/9/2026
Language: EN
According to Regulation [EC] No. 1907/2006
[amended by Regulation [EU] No. 2020/878]

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. PRODUCT IDENTIFIER

Trade name/designation: LALSTIM® OSMO SP

1.2. RELEVANT IDENTIFIED USES of the substance or mixture and uses advised against

Uses advised against: No data available.
Relevant identified uses: [BIO] FERTILIZER

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Supplier:

Name:	Danstar Ferment AG/LALLEMAND PLANT CARE
Street:	Poststrasse 30
Postal code/City:	6300 / Zug
Country:	Switzerland
Telephone:	+41 41 727 20 30
Website:	www.lallemandplantcare.com
E-mail:	plantcare@lallemand.com

1.4. EMERGENCY TELEPHONE NUMBER

Australia: Call 000
New Zealand: Call 111

SECTION 2: Hazards identification

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification according to the regulation [EC] n°1272/2008
[CLP] and its amendments

Hazards identification: This mixture is not classified as hazardous.

2.2. LABEL ELEMENTS

Label elements according to the regulation [EC] n°1272/2008 [CLP] and its amendments

Labelling

Hazard pictograms:	None
Signal word:	None
Hazard statements:	None

SAFETY DATA SHEET

SECTION 2: Hazards Identification

2.3. OTHER HAZARDS

Information on PBT and vPvB:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic [PBT], or very persistent and very bioaccumulative [vPvB] and does not fall under Annex XIII of Regulation [EC] 1907/2006.

Information on endocrine disrupting properties:

This substance/mixture does not contain any components considered to have endocrine disrupting properties

SECTION 3: Composition/Information On Ingredients

3.2. MIXTURES

Substance	CAS-,EC or index number	REACH Registration No.	Concentration [%]	Classification according to Reg.[EC] No 1278/2008 [CLP]
Glycine Betaine	CAS# 107-43-7 EC# 203-490-6	01211952050842	97%	None

Other ingredients

Mixture does not contain any other ingredients that are classified as dangerous according to Reg [EC] No. 1272/2008 [CLP].

SAFETY DATA SHEET

SECTION 4: First Aid measures

4.1. DESCRIPTION OF FIRST AID MEASURES

General information:	When in doubt or if symptoms are observed, get medical advice.
Following inhalation:	No special measures are necessary. Provide fresh air.
Following skin contact:	Wash with soap and water.
Following eye contact:	In case of eye irritation consult an ophthalmologist. Rinse immediately carefully and thoroughly with eye-bath or water.
Following ingestion:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Self-protection of the first aider:	No special measures are necessary.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Eye contact:	May cause eye irritation [redness].
Skin Contact:	Prolonged or repeated skin contact may cause irritation.
Inhalation:	None.
Ingestion:	None.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Notes for the doctor: Treat symptomatically.

SAFETY DATA SHEET

SECTION 5: Firefighting Measures

5.1. EXTINGUISHING MEDIA

Suitable extinguishing media: Water, foam, carbon dioxide, dry powder.

Unsuitable extinguishing media: None.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Do not inhale explosion and combustion gases. Burning may produce heavy smoke.

5.3. ADVICE FOR FIREFIGHTERS

Wear a self-contained breathing apparatus [SCBA] when exposed to confined or enclosed fires as product powder could be in the air. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

Additional information Not available.

SECTION 6: Accidental Release Measures

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Avoid contact with eyes, skin and clothing. Wear suitable protective equipment [see section 8].

6.2. ENVIRONMENTAL PRECAUTIONS

Do not allow to enter into surface water or drains. Retain contaminated washing water and dispose it. This material is not a physical, health or environmental hazard.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Small accidental spillage or leak: Mop up with appropriate material. Place in an appropriate container. Clean the area affected with plenty of water.

Large accidental spillage or leak: Prevent spillage into the drains, subsoil or confined areas. Contain if necessary. Mop up the product spilled with inert material [e.g. dry sand or dry earth] and place in a chemical waste container.

6.4. REFERENCE TO OTHER SECTIONS

Safe handling: see section 7.

Disposal: see section 13.

Personal protection equipment: see section 8.

Additional information Not available

SAFETY DATA SHEET

SECTION 7: Handling and Storage

7.1. PRECAUTIONS FOR SAFE HANDLING

PROTECTIVE MEASURES:

Preventive measures: Keep out of the reach of children and unauthorized persons. Handling: Avoid contact with skin or eyes. Use localized ventilation system. Advices on general occupational hygiene:

Handling: Wash hands thoroughly after handling. Do not eat, drink or smoke while working. Store work clothing separately. See also section 8 for recommended equipment.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in dry and well-ventilated place in its tightly closed original packaging. Storage instructions [temperatures and times] given on product label.

Keep away from food, drink and animal feeding stuffs.

7.3. SPECIFIC END USES

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure Controls/Personal Protection

8.1. CONTROL PARAMETERS

National occupational exposure limit values: None

Other limit values: None

DNEL: None

PNEC: None.

8.2. EXPOSURE CONTROLS

Appropriate engineering controls: See section 7. No additional measures necessary.

Individual protection measures, such as personal protective equipment: Not available

SAFETY DATA SHEET

8.2. EXPOSURE CONTROLS CONTINUED

Eye/face protection :	Suitable eye protection: Not needed during normal handling. No special measures are necessary.
Skin protection	Hand protection: Avoid contact with skin. Wear suitable protective gloves. Suitable gloves type: No special measures are necessary.
Body protection:	Suitable protective clothing: No special measures are necessary.
Respiratory protection	Suitable respiratory protection apparatus: Respiratory protection not needed during normal handling. In case of insufficient ventilation, use effective mask.
Environmental exposure controls:	No environmental exposure limits or controls. Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local and national health and environmental regulations.
Consumer exposure controls:	Not available.
Additional information	Not available.

SAFETY DATA SHEET

SECTION 9: Physical and Chemical Properties

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid - crystals
Colour	Light Brown
Odour	Not available
pH	6 to 10
Melting point/freezing point	Not available
Initial boiling point and boiling range	Not applicable
Flash point	Not applicable
Flammability	Not available
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	Not available
Vapour density	Not applicable
Relative density	Not available
Solubility[ies]	Soluble in water
Partition coefficient n-octanol/water [log value]	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	
Dynamic viscosity	Not available
Kinematic viscosity	Not available
Oxidising properties	Not available
Solubility in other Solvents	Not available
Particle characteristics	Crystals

9.2. OTHER SAFETY INFORMATION

Information concerning to the classes of physical hazards	Not available
Other security characteristics	Not available

SAFETY DATA SHEET

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

Stable under recommended conditions of storage, use and transportation.

Not reactive. No hazardous reactions when transported, stored, and handled according to prescribed instructions.

10.2. CHEMICAL STABILITY

Stable under recommended conditions of storage, use and transportation.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

No hazardous reaction when handled and stored according to provisions.

10.4. CONDITIONS TO AVOID

No specific data.

10.5. INCOMPATIBLE MATERIALS

Acids, bases, concentrated fertilizer liquids, chemical pesticides, food, drink and animal feeding stuffs.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Under recommended conditions of storage and use, no hazardous decomposition products should occur. In case of fire, see section 5.

Additional information Not available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON HAZARD CLASSES AS DEFINED IN REGULATION [EC] NO 1272/2008

Acute oral toxicity:	Product generally regarded as safe by ingestion. Substance [betaine anhydrous]: LD50 [oral/rat] > 11179 mg/kg.
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Acute dermal toxicity:	The product is not classified.
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Acute inhalation toxicity:	The product is not classified.
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Skin corrosion/irritation:	Irritation to the skin may occur.
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Serious eye damage/irritation:	Irritation to the eyes may occur.
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Skin sensitisation:	Possible skin irritation.
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Specific target organ toxicity [repeated exposure]:	The product is not classified.
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Specific target organ toxicity [single exposure]:	The product is not classified.
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SAFETY DATA SHEET

Carcinogenicity:	The product is not classified.
Reproductive toxicity:	No known information is available.
Germ cell mutagenicity:	Negative in Ames assay with and without metabolic activation up to 5000µg/plate. Negative in chromosomal aberration using human lymphocytes. No increases in micronuclei were noted in the bone marrow of mice dosed up to 2gm/Kg by the oral route.
Sensitisation to the respiratory tract:	Irritation to the nose or throat may occur.
Additional information:	Not available

11.2. INFORMATION ON OTHER HAZARDS

Endocrine disrupting properties:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57[f] or Commission Delegated regulation [EU] 2017/2100 or Commission Regulation [EU] 2018/605 at levels of 0.1% or higher.
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SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Based on available data, the classification criteria are not met.

12.2. PERSISTENCE AND DEGRADABILITY

Readily biodegradable, according to appropriate OECD test. Biological degradability [28d]: 88% [Betaine].

12.3. BIOACCUMULATIVE POTENTIAL

No information available.

12.4. MOBILITY IN SOIL

No information available.

12.5. RESULTS OF PBT AND VPVB ASSESSMENT

According to Regulation [EU] 1907/2006, no substances are assessed as PBT or vPvB.

12.6. ENDOCRINE DISRUPTING PROPERTIES

According to Regulation [EU] 2017/2100 or Regulation [EU] 2018/605, no substances are known to have endocrine disrupting properties. 12.7. Other adverse effects

No known adverse effects.

SAFETY DATA SHEET

12.6. ENDOCRINE DISRUPTING PROPERTIES - CONTINUED

Component information below is as complete as possible. Data related to substance Betaine Anhydrous:

Toxicity to algae:	EC50/72h/algae = 1199 mg/l [Desmodesmus subspicatus].
Toxicity to Daphnia:	EC50/48hr/daphnia = 4335 mg/l.
Biodegradation:	Readily biodegradable [88% after 28 days].
Log Pow:	-3.1 [at 20°C].
Chemical Oxygen Demand [COD]:	14 mg/g [Cr].
Biochemical Oxygen Demand [BOD]:	720 mg/g [BOD5 ATU]
Dissolved Organic Carbon [DOC]:	300 mg/g.

Additional ecotoxicological information Not available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

- Disposal instructions:** Dispose of contents and container in accordance with local and national regulations.
Do not throw the product or packaging/containers into waters, ponds, rivers or ditches.
- Product disposal:** To avoid wastes, use all material in this package/container by application according to label instructions. If wastes cannot be avoided, offer remaining product to an appropriate waste collection point according to national and local pesticide disposal requirements and instructions.
- Sewage disposal:** Waste should not be disposed of by release to sewers.
- Packaging disposal:** Rinse empty packaging/container with water to reduce any potential product residue in the packaging/container to insignificant amounts. Empty, rinsed packages/containers are disposed to appropriate waste collection point according to national and local requirements and instructions. Do not reuse or refill the packages/containers for other purposes. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.
- Additional information** Not available

SAFETY DATA SHEET

SECTION 14: TRANSPORT INFORMATION

14.1. UN NUMBER	The product is not hazardous according to the applicable transport regulations.
14.2. UN PROPER SHIPPING NAME	Not regulated
14.3. TRANSPORT HAZARD CLASS[ES]	Not regulated
14.4. PACKING GROUP	Not regulated
14.5. ENVIRONMENTAL HAZARDS	Not regulated
14.6. SPECIAL PRECAUTIONS FOR USER	Not regulated
14.7. BULK SHIPPING ACCORDING TO IMO INSTRUMENTS	Not regulated
Additional information	Not available

SECTION 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

This SDS has been established in accordance with REACH regulation, including its amendments: REACH Regulation[EC] No 1907/2006. This SDS has been established in accordance with CLP regulation, including its amendments: CLP Regulation EC No. 1272/2008.

15.2. CHEMICAL SAFETY ASSESSMENT

For this substance/mixture a chemical safety assessment is not required.
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Additional information: Not available

SAFETY DATA SHEET

SECTION 16: OTHER INFORMATION

Indication of changes Not applicable [first edition of the MSDS].

Abbreviations and acronyms

CAS: Chemical Abstract Service Number.

IATA: International Air Transport Association.

IMDG: International Maritime Dangerous Goods Code.

DPD Dangerous Preparation Directive.

UN number: United Nations number.

No EC: European Commission Number.

EC50: Average effective concentration.

ADN/ADNR: Regulations concerning the transport of dangerous substances in barges on the waterways.

ADR/RID: European Agreement concerning the International Carriage of Dangerous Goods by Road/Regulations concerning the international carriage of dangerous goods by rail.

CLP: Classification, labeling and packaging.

VPvB: very persistent and very bioaccumulative substances.

Key literature references and sources for data

CLP Regulation [EC] 1272/2008, Regulation [EU] 453/2010 and Directive 1999/45/EC with amendments. Guidelines and Instructions for the creation of safety data sheets in the current version [ECHA]. Guidelines on labelling and packaging in accordance with Regulation [EC] No. 1272/2008 [CLP] as amended [ECHA]. Regulations for the transport of dangerous goods by road, rail, sea and air transport [ADR, RID, IMDG, IATA] in the currently valid version.

Classification for mixtures and used evaluation method according to regulation [EC] 1272/2008 [CLP]

Complies with ATP 18, Regulation [EU] n°2022/692.

Classification of the mixture is in accordance with the evaluation method described in Regulation [EC] No 1272/2008.

Relevant R-, H- and EUH-phrases [Number and full text]

Training advice Refer to Sections 4, 5, 6, 7 and 8 of this safety data sheet.

Additional information Creation date: 22/07/2024

Version date: 2/9/2026

Printing date: 2/9/2026

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