Safety Data Sheet

LALSTIM® OSMO

LALLEMAND PLANT CARE

Version: 1
Version date: 16/01/2025
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

1.1. Product identifier

Trade name/designation : **LALSTIM® OSMO**

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 / LALLLEMAND 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

In the European Union: Call 112.

In USA and Canada: Call +1-800-424-9300 / +1-703-527-3887

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

Hazard pictograms : –

Signal word : –

Hazard statements : –

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 according to REACH Article 57(f), Commission Delegated regulation (EU) 2017/2100 or to Commission Regulation (EU) 2018/605.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Product is a mixture.

3.2. Mixtures

Ingredient (active)	Glycine betaine
CAS No. / EC No.	CAS# 107-43-7 EC# 203-490-6
REACH Registration No.	01211952050842
Content	> 96 %
Classification according to Reg (EC) No 1278/2008 [CLP]	Not classified

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

Remark

Not available.

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.

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.

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:

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:

Eye/face protection : Not needed during normal handling.

Suitable eye protection: No special measures are necessary.

Skin protection : Avoid contact with skin. Wear suitable protective clothing.

Hand protection: Wear protective gloves.

Suitable gloves type: No special measures are necessary.

Body protection: No special measures are necessary.

Suitable protective clothing: No special measures are necessary.

Respiratory protection : Respiratory protection not needed during normal handling.

In case of insufficient ventilation, use effective mask.

Suitable respiratory protection apparatus: No data available.

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

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

9.2. Other safety information

Other security characteristics

Not available.

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:

The product is not classified.

Product generally regarded as safe by ingestion. Substance (betaine anhydrous): LD50 (oral/rat) > 11179 mg/kg.

Acute dermal toxicity:

The product is not classified.

Acute inhalation toxicity:

The product is not classified.

Skin corrosion/irritation:

Irritation to the skin may occur.

Serious eye damage/irritation:

Irritation to the eyes may occur.

Skin sensitisation:

Possible skin irritation.

Specific target organ toxicity (repeated exposure):

No data available.

Specific target organ toxicity (single exposure):

No data available.

Carcinogenicity:

No data available.

Reproductive toxicity:

No data 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:

Micro-organisms may have the potential to provoke sensitizing reactions. Not classified.

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.

Other information:

No other known hazards.

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.

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.

Additional information

Not available.

SECTION 14: TRANSPORT INFORMATION

General:

Product is not classified as dangerous goods according to international transportation regulations in force ADR, RID, ADN, OACI/IATA and OMI/IMDG.

14.1. UN number	Not applicable, not regulated.
14.2. UN proper shipping name	Not applicable.

14.3. Transport hazard class(es)	Not applicable.
14.4. Packing group	Not applicable.
14.5. Environmental hazards	None.
14.6. Special precautions for user	None.
14.7. Bulk shipping according to IMO instruments	Product is not intended for bulk transport.

Additional information

Not available.

SECTION 15: REGULATORY INFORMATION

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

Safety Data Sheet and Classification in accordance with following EU Regulations:

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

CLP Regulation (EC) 1272/2008 on classification, labelling, and packaging of substances and mixtures, amending and repealing Directives 67/548/EC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Regulation (EU) 453/2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

Regulation (EU) 453/2010 ANNEX II: Requirements for the compilation of safety data sheets.

Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

Directive 1999/45/EC concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations.

Regulation (EU) 547/2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards labelling requirements for plant protection products.

Directive 2003/82/EC regarding standard phrases for special risk and safety precautions for plant protection products.

Directive 2001/36/EC concerning the placing of plant protection products on the market.

In Canada:

WHMIS Statement: This product has been classified in accordance with the hazard criteria of the Controlled Product Regulation (CPR) and the SDS contains all the information required by the CPR.

In USA:

California Proposition 65: This product does not contain any proposition 65 chemicals.
SARA 313, section 313 of the Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and 40 CFR Part 372.

In Brazil:

Federal Decree 2.657/1998.
ABNT–NBR 14725 Standard.
Ordinance nº 229 of 2011 – Amending the Regulatory Standard nº 26.
Joint Normative Instruction No. 3 of 2006.

In Uruguay:

Resolution MGAP N° 688 04-10-2013 (MGAP – Ministry of Livestock, Agriculture and Fisheries).

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture under Regulation (EC) 1907/2006 REACH).

Active substance and formulated end product/mixture regulated, assessed, and approved as plant protection product under Regulation (EC) 1107/2009, (EU) 540/2011 and Directive 91/414/EEC.

Additional information

Not available.

SECTION 16: OTHER INFORMATION

Indication of changes

Revision of Section 1 to 16.

Abbreviations and acronyms

ADR: Accord European Relatif au International Transport des Marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road).

CFU: Colony forming units.

CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.

EC50: Average effective concentration.

ECHA: European Chemicals Agency.

EC: European Community.

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EN: European standards.

EU: European Union.

IATA: International Air Transport Association (= International Air Transport Association).

IMDG: Code International Maritime Code for Dangerous Goods.

LC50: Lethal Concentration to 50% of a test population.

LD50: Lethal Dose to 50% of a test population (Median Lethal Dose) (= lethal dose for 50% of a test population (median lethal dose).

N.a.: Not applicable.

NOEC: No observed effect concentration.

NOAEC: No Observed Adverse Effect Concentration.

PBT: Persistent, Bioaccumulative and Toxic.

VPvB: Very Persistent and Very Bioaccumulative.

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]

Classification: **Not classified.**

Procedure: On basis of test data made with active substance and/or product. Data evaluated by authorities and experts according to Uniform Principles.

Relevant R-, H- and EUH-phrases (Number and full text)

No H-statements.

Training advice

No specific recommendations.

Additional information

Creation date: 22/04/2024

Version date: 16/01/2025

Printing date: 16/01/2025

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