# SAFETY DATA SHEET

According to Regulation (US HCS) 29 CFR 1910.1200

**Version number:** 1.0
**Issued:** 2026-01-29

# Biolaminin 411 LN

## SECTION 1: Identification

### Product identifier used on the label

***Trade name***
Biolaminin 411 LN

### Other means of identification

***Article No.***
LN411-02, LN411-0501

***Contains***
Clear, colorless, buffered solution with a pH of 7.2 with 10% glycerol and 0.02% sodium azide

### Recommended use of the chemical and restrictions on use

***Product type***
Human recombinant laminin for use as cell culture substrate.

***Use***
For research cell culture applications.

***Not suitable for use in***
Not for use in medical or diagnostic procedures.

### Supplier's details

***Supplier***
BioLamina AB

Address
Löfströms allé 5
172 66 Sundbyberg
Sweden

Email
Quality.support@biolamina.com

Web site
biolamina.com

### Emergency phone number

1-800-222-1222 or use the web POISONCONTROL® (triage.webpoisoncontrol.org)

***Available outside office hours***
Yes

## SECTION 2: Hazard identification

**Classification of the substance or mixture and any national or regional information**

The product is not classified as hazardous according to Regulation (US HCS) 29 CFR 1910.1200

**Label elements, including precautionary statements**

The product does not require labeling in accordance with Regulation (US HCS) 29 CFR 1910.1200

**Other hazards which do not result in classification**

This product does not contain any PBT or vPvB substances.

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

The chemical, physical, and toxicological properties of the product have not been fully evaluated. Exposure by any route should be avoided.

## SECTION 3: Composition/information on ingredients

**Mixture**

| Chemical name | CAS No. Other unique identifiers | Concentration | Classification | H-phrase | Note |
|---|---|---|---|---|---|
| Sodium Azide | 26628-22-8 | >0 - <0.05% | Acute Tox. 2 – oral, Acute Tox. 1 – dermal Acute Tox. 2 - inhalation STOT RE 2 | H300, H310, H330, H373 | Contact with acids liberates very toxic gas |

***Product based on***

PBS buffered saline, 10% glycerol, 0.02% sodium azide

***Substance additional information***

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

## SECTION 4: First-aid measures

**Description of necessary first-aid measures**

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink. Do not leave the victim unattended.

***Inhalation***
In case of discomfort: bring the person into fresh air. Consult a physician if necessary.

***Skin contact***
Wash exposed skin thoroughly with water and soap. In the event of irritation, seek medical assistance.

***Eye contact***
Rinse gently with lukewarm water. Remove any contact lenses if this is easy to do. Continue rinsing. Protect unharmed eye. In case of persistent eye irritation or discomfort: Seek medical help.

***Ingestion***
Rinse and flush mouth thoroughly and consume large quantities of water. In case of continued discomfort: seek medical assistance and bring this safety data sheet.

***Information for doctors***
Treat symptomatically.

**Most important symptoms/effects, acute and delayed**
None known.

**Indication of immediate medical attention and special treatment needed, if necessary**
Treat symptomatically.

**Other**
Bring this safety data sheet or the label from this product.

## SECTION 5: Fire-fighting measures

**Suitable (and unsuitable) extinguishing media**

***Suitable extinguishing media***
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Suitable extinguishing media
Alcohol-resistant foam, carbon dioxide, powder, water mist

***Unsuitable extinguishing media***
Water jets should not be used, since they can spread the fire.

**Specific hazards arising from the chemical (e.g. nature of any hazardous combustion products).**
Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are: carbon oxides

**Special protective actions for fire-fighters**

***Special protective equipment for fire-fighters***

Wear self-contained breathing apparatus and protective suit.

***Measures in case of fire***

Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

## SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation, especially in confined areas. Contaminated areas may be slippery. Use personal protection equipment.

**Environmental precautions**

Avoid discharge to lakes, streams, sewers, etc.  Keep unauthorized persons away from the spill.

**Methods and materials for containment and cleaning up**

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

**Reference to other sections**

SECTION 7: Handling and storage
SECTION 8: Exposure controls/personal protection
SECTION 13: Disposal considerations

## SECTION 7: Handling and storage

**Precautions for safe handling**

***Preventive handling precautions***

Always wear recommended Personal Protective Equipment. For personal protection, see section 8. Smoking, eating and drinking should be prohibited in the application area.

***General hygiene***

Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers.

**Specific end use(s)**

This product should only be used for applications quoted in Section 1.

## SECTION 8: Exposure controls/personal protection

### Control parameters

Exposure limits

| Ingredient | CAS No. | Exposure limit ppm / mg/m³ | Ceiling exposure limit ppm / mg/m³ | Source | Remark | Year |
|---|---|---|---|---|---|---|
| Sodium Azide | 26628-22-8 | - / - | - / 0.3 | NIOSH REL | As NaN3, Skin notation: Yes | - |
| Sodium Azide | 26628-22-8 | - / - | - / 0.29 | ACGIH TLV | As NaN3, Skin notation: No | - |
| Sodium Azide | 26628-22-8 | - / - | 0.1 / 0.3 | Cal/OSHA PEL | Skin notation: Yes | - |
| Glycerol (mist) | 56-81-5 | - / 15 | - / - | OSHA PEL (Table Z-1) | 8-hour TWA, total dust, Skin notation: No | - |
| Glycerol (mist) | 56-81-5 | - / 5 | - / - | OSHA PEL (Table Z-1) | 8-hour TWA, respirable fraction, Skin notation: No | - |
| Glycerol (mist) | 56-81-5 | - / 10 | - / - | Cal/OSHA PEL | 8-hour TWA, total dust, Skin notation: No | - |
| Glycerol (mist) | 56-81-5 | - / 5 | - / - | Cal/OSHA PEL | 8-hour TWA, respirable fraction, Skin notation: No | - |

### Appropriate engineering controls

Apply general control to prevent unnecessary exposure. Ensure adequate ventilation, especially in confined areas. Compliance with the given occupational exposure limits values should be controlled on a regular basis. Smoking, drinking and consumption of food is not allowed in the work area.

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above and consult any national legislation.

The formation of vapors must be kept at a minimum and below current limit values (see above and consult national legislation). Installation of a local exhaust system if normal air flow in the workroom is not sufficient is recommended. Avoid inhalation of vapors. Wash hands after use.

### Individual protection measures, such as personal protective equipment

***Eye / face protection***

Wear approved safety goggles.

***Hand protection***
Protective gloves.

Use only protective gloves with a recognized certification mark, e.g. the UL mark. This recommendation is only valid for the product mentioned in the material safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

***Other skin protection***
Wear suitable protective clothing.

***Respiratory protection***
No personal respiratory protective equipment normally required.
In case of inadequate ventilation, wear respiratory protection.

***Environmental exposure controls***
No special environmental precautions required.

**Other**
Use only protective equipment with a recognized certification mark, e.g. the UL mark.

## SECTION 9: Physical and chemical properties

**Information on basic physical and chemical properties**

***Physical state***
Liquid

***Colour***
Colorless

***Odor***
None

***Odor threshold***
No data available

***Melting point / freezing point***
No data available

***Boiling point or initial boiling point and boiling range***
No data available

***Flammability***
No data available

***Lower and upper explosion limit***
No data available

***Flash point***
No data available

***Auto-ignition temperature***
No data available

***Decomposition temperature***
No data available

***pH***
7 - 8

***Kinematic viscosity***
No data available

***Viscosity, dynamic***
No data available

***Solubility***
Completely miscible

***Water solubility***
No data available

***Partition coefficient n-octanol/water (log value)***
No data available

***Vapor pressure (includes evaporation rate)***
No data available

***Density and/or relative density***
No data available

***Relative vapor density***
No data available

***Explosive properties***
No data available

***Oxidizing properties***
The substance or mixture is not classified as oxidizing.

***Particle characteristics***
No data available

**Other information**
No data available

## SECTION 10: Stability and reactivity

**Reactivity**
No dangerous reaction known under conditions of normal use.

**Chemical stability**
Stable under normal conditions.

**Possibility of hazardous reactions**
No dangerous reaction known under conditions of normal use. Stable under recommended storage conditions. No hazards to be specifically mentioned.

**Conditions to avoid**
No data available

**Incompatible materials**
No data available

**Hazardous decomposition products**
No data available

## SECTION 11. Toxicological information

**Information on the likely routes of exposure**
Via eye contact, skin contact, by inhalation or ingestion.

The chemical, physical, and toxicological properties of the product have not been fully evaluated. Exposure by any route should be avoided.

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

***Skin corrosion/irritation***
Based on available data, the classification criteria are not met.

***Serious eye damage/irritation***
Based on available data, the classification criteria are not met.

***Respiratory or skin sensitization***
Based on available data, the classification criteria are not met.

***Germ cell mutagenicity***
Based on available data, the classification criteria are not met.

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

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

***STOT-single exposure***
Based on available data, the classification criteria are not met.

***STOT-repeated exposure***
Based on available data, the classification criteria are not met.

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

***Symptoms related to the physical, chemical and toxicological characteristics***
None known.

***Delayed and immediate effects as well as chronic effects from short and long-term exposure***
No data available

***Interactive effects***
No data available

**Information on other hazards**

***Endocrine disrupting properties***
The product does not contain any known or suspected endocrine disruptors.

## SECTION 12: Ecological information

**Ecotoxicity**
Contains no substance known to be hazardous to the environment or not degradable in wastewater treatment plants.

**Persistence and degradability**
No data available

**Bioaccumulative potential**
No data available

**Mobility in soil**
No data available

**Results of PBT and vPvB assessment**
This product does not contain any PBT or vPvB substances.

**Endocrine disrupting properties**
The product does not contain any known or suspected endocrine disruptors.

**Other adverse effects**

No data available

## SECTION 13: Disposal considerations

**Disposal methods**

***Disposal considerations***

RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)
Sodium azide is listed with EPA Hazardous Waste Number: P105

Can be disposed of as wastewater, when in compliance with local regulations.

***Packaging***

Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Packaging containing residues of the product must be disposed of similarly to the product.

## SECTION 14: Transport information

**UN number**

Not regulated as a dangerous good

**UN proper shipping name**

Not applicable

**Transport hazard class(es)**

Not applicable

**Packing group**

Not applicable

**Environmental hazards**

Not applicable

**Special precautions for user**

Not applicable

**Transport in bulk according to IMO instruments**

Not applicable

**Other**

Not applicable

## SECTION 15: Regulatory information

**Safety, health and environmental regulations specific for the product in question**

***U.S. Federal regulations***

OSHA Hazard Communication Standard (29 CFR 1910.1200)

RCRA Hazardous waste (40 CFR 261)

TSCA (the non-confidential portion):
Glycerol is listed
Sodium azide is listed

Clean Air Act:
None of the components are listed

EPCRA Section 302:
Sodium azide is regulated with a Threshold Planning Quantity (TPQ) of: 500 pounds

EPCRA Section 304:
Sodium azide is regulated with a Reportable Quantity (RQ) of: 1000 pounds

EPCRA section 313:
Sodium azide is listed

CERCLA:
Sodium azide is regulated with a Reportable Quantity (RQ) of: 1000 pounds

Hazardous chemical inventory reporting:
This product is not subject to Tier II reporting.

***State regulations***

California / Prop. 65:
None of the components are listed

Massachusetts / Right To Know Act:
Glycerol is listed
Sodium azide is listed

New Jersey / Right To Know Act:
Glycerol / Substance number: 3319
Sodium azide / Substance number: 1684 (Sodium azide is on the Special Health Hazard Substance List)

New York / Right To Know Act:
Sodium azide is listed

Sodium azide is regulated with a Reportable Quantity (RQ) of: 1000 pounds Sodium azide is regulated with a Threshold Reporting Quantity (TRQ) of: 0 pounds Sodium azide is regulated with a Threshold Planning Quantity (TPQ) of: 500 pounds

Pennsylvania / Right To Know Act:
Glycerol is listed
Sodium azide is listed
Sodium azide is hazardous to the environment (E)

***Other regulations, limitations and legal regulations***
Local laws and regulations should be carefully observed.

**Chemical safety assessment**
No

**Other**
Restrictions for application - Restricted to professional users.
Demands for specific education - No specific requirements.

## SECTION 16: Other information

***Date of preparation or last revision***
New safety data sheet (2026-01-29)

***Abbreviations***
ACGIH - American Conference of Governmental Industrial Hygienists
CAS - Chemical Abstracts Service
CERCLA - Comprehensive Environmental Response Compensation and Liability Act
EPCRA - Emergency Planning and Community Right-To-Know Act
HCS - Hazard Communication Standard
NIOSH - National Institute for Occupational Safety and Health
OSHA - Occupational Safety and Health Administration
PBT - Persistent, Bioaccumulative and Toxic substance
PEL - Permissible Exposure Limits
RCRA - Resource Conservation and Recovery Act
REL - Recommended Exposure Limits
STEL - Short-term exposure limits
STOT - Specific Target Organ Toxicity
TLV - Threshold Limit Values
TSCA - The Toxic Substances Control Act
TWA - Time weighted average
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

***References to key literature and data sources***
The National Institute for Occupational Safety and Health (NIOSH)
OSHA Occupational Chemical Database Advanced Search
OSHA Hazard Communication Standard (29 CFR 1910.1200)
29 CFR Part 1910 Subpart Z
TSCA Inventory
Previous version of SDS (EU)

***Evaluation methods for classification***
Calculation method

***Phrase meaning***
Acute Tox. 2 - oral - Acute toxicity, oral, hazard category 2
Acute Tox. 1 - dermal - Acute toxicity, dermal, hazard category 1
Acute Tox. 2 - inhalation - Acute toxicity, inhalation, hazard category 2
STOT RE 2 - Specific Target Organ Toxicity — Repeated exposure, hazard category 2
H300 Fatal if swallowed.
H310 Fatal in contact with skin.
H330 Fatal if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.

***Additional information***
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 materials or in any process, unless specified in the text.