

# SAFETY DATA SHEET

Version 1.0  
Revision Date 09/29/2026  
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## SECTION 1. IDENTIFICATION

### 1.1 Product identifiers

Product name : **Lipo-B Solution (30 mL)**  
Product Number : LIPOB-30ML  
Brand : 4AminoLabs  
CAS-No. (actives) : See section 3 (multi-component solution)  
Reference batch : See container label

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

Identified uses : Laboratory research and analytical reference use.  
Uses advised against : Not for human or veterinary use. Not a drug, dietary supplement, food, or cosmetic.  
Supplied under the TSCA R&D Exemption (40 CFR Section 720.36); it is the recipient's responsibility to comply with the requirements of the R&D exemption.

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

Company : 4AminoLabs  
1001 S. Main Street, STE 600  
Kalispell, MT 59901  
UNITED STATES  
Telephone : +1 (256) 472-1983  
E-mail : sales@4aminolabs.com  
Website : www.4aminolabs.com

### 1.4 Emergency telephone number

Emergency Phone # : Poison Control Center (US): 1-800-222-1222 (24 hours/day, 7 days/week)

## SECTION 2. HAZARDS IDENTIFICATION

### GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a hazardous substance or mixture according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### GHS label elements

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

### Other hazards

None known. Contains benzyl alcohol as a preservative below classification limits. Contains light-sensitive vitamins.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture (sterile aqueous solution)

## Components

| Chemical name                                                                                                         | CAS-No.    | Concentration             |
|-----------------------------------------------------------------------------------------------------------------------|------------|---------------------------|
| <b>Thiamine hydrochloride (vitamin B1)</b><br>Formula: $C_{12}H_{17}ClN_4OS \cdot HCl$ Molecular weight: 337.27 g/mol | 67-03-8    | 1.25 mg/mL                |
| <b>Riboflavin 5'-phosphate sodium (vitamin B2)</b><br>Formula: $C_{17}H_{20}N_4NaO_9P$ Molecular weight: 478.33 g/mol | 130-40-5   | 1.0 mg/mL (as riboflavin) |
| <b>Niacinamide (vitamin B3)</b><br>Formula: $C_6H_6N_2O$ Molecular weight: 122.12 g/mol                               | 98-92-0    | 12.5 mg/mL                |
| <b>D-Panthenol (provitamin B5)</b><br>Formula: $C_9H_{19}NO_4$ Molecular weight: 205.25 g/mol                         | 81-13-0    | 5.0 mg/mL                 |
| <b>Pyridoxine hydrochloride (vitamin B6)</b><br>Formula: $C_8H_{11}NO_3 \cdot HCl$ Molecular weight: 205.64 g/mol     | 58-56-0    | 5.0 mg/mL                 |
| <b>Methylcobalamin (vitamin B12)</b><br>Formula: $C_{63}H_{91}CoN_{13}O_{14}P$ Molecular weight: 1344.4 g/mol         | 13422-55-4 | 1 mg/mL<br>(1000 mcg/mL)  |
| <b>L-Methionine</b><br>Formula: $C_5H_{11}NO_2S$ Molecular weight: 149.21 g/mol                                       | 63-68-3    | 25 mg/mL                  |
| <b>myo-Inositol</b><br>Formula: $C_6H_{12}O_6$ Molecular weight: 180.16 g/mol                                         | 87-89-8    | 50 mg/mL                  |
| <b>Choline</b><br>Formula: $C_5H_{14}NO$ Molecular weight: 104.17 g/mol                                               | 62-49-7    | 25 mg/mL                  |
| <b>L-Carnitine</b><br>Formula: $C_7H_{15}NO_3$ Molecular weight: 161.20 g/mol                                         | 541-15-1   | 200 mg/mL                 |
| Benzyl alcohol (preservative)                                                                                         | 100-51-6   | 1.5 % v/v                 |
| Ammonium sulfate                                                                                                      | 7783-20-2  | 0.1 %                     |
| Water (sterile)                                                                                                       | 7732-18-5  | Balance                   |

This mixture is not classified as hazardous. Benzyl alcohol is present below the concentration limits for classification.

## SECTION 4. FIRST AID MEASURES

|                                                             |                                                                                                                         |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| General advice                                              | : Show this safety data sheet to the doctor in attendance if symptoms persist.                                          |
| If inhaled                                                  | : After inhalation: fresh air.                                                                                          |
| In case of skin contact                                     | : Rinse skin with water/ shower.                                                                                        |
| In case of eye contact                                      | : After eye contact: rinse out with plenty of water. Remove contact lenses. Consult a physician if irritation persists. |
| If swallowed                                                | : After swallowing: rinse mouth, make victim drink water (two glasses at most). Consult a physician if feeling unwell.  |
| Most important symptoms and effects, both acute and delayed | : No significant effects expected under normal laboratory handling. See section 11.                                     |
| Notes to physician                                          | : Treat symptomatically.                                                                                                |

## SECTION 5. FIREFIGHTING MEASURES

|                                      |                                                                                                           |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media         | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media       | : For this substance/mixture no limitations of extinguishing agents are given.                            |
| Specific hazards during firefighting | : Not combustible (aqueous solution).                                                                     |

|                                               |                                                                        |
|-----------------------------------------------|------------------------------------------------------------------------|
| Hazardous combustion products                 | : Carbon oxides<br>Nitrogen oxides (NO <sub>x</sub> )<br>Sulfur oxides |
| Special protective equipment for firefighters | : In the event of fire, wear self-contained breathing apparatus.       |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

|                                                                     |                                                                                                                                                                                                        |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | : Avoid substance contact. For personal protection see section 8.                                                                                                                                      |
| Environmental precautions                                           | : Do not let product enter drains.                                                                                                                                                                     |
| Methods and materials for containment and cleaning up               | : Take up with liquid-absorbent material (e.g. vermiculite, sand, universal binder). Place in a closed, labeled container and dispose of properly (see section 13). Clean up affected area with water. |

## SECTION 7. HANDLING AND STORAGE

|                                           |                                                                                                                         |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Advice on safe handling                   | : Handle in accordance with good laboratory hygiene and safety practice. Use aseptic technique once the vial is opened. |
| Hygiene measures                          | : Wash hands after working with substance.                                                                              |
| Further information on storage conditions | : Tightly closed. Protect from light. Store upright.                                                                    |
| Storage class                             | : 12, Non Combustible Liquids                                                                                           |
| Recommended storage temperature           | : 68 - 77 °F / 20 - 25 °C                                                                                               |
| Materials to avoid                        | : Strong oxidizing agents.                                                                                              |

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

| Component      | CAS-No.  | Value type | Control parameter | Basis     |
|----------------|----------|------------|-------------------|-----------|
| Benzyl alcohol | 100-51-6 | TWA        | 10 ppm            | AIHA WEEL |

|                      |                                   |
|----------------------|-----------------------------------|
| Engineering measures | : General laboratory ventilation. |
|----------------------|-----------------------------------|

### Personal protective equipment

|                          |                                                                                                                                                                              |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Respiratory protection   | : Not required under normal conditions of use.                                                                                                                               |
| Hand protection          | : Material: Nitrile rubber<br>Glove thickness: minimum 0.11 mm<br>Protective index: splash contact<br>Remarks: Inspect gloves before use and dispose of after contamination. |
| Eye protection           | : Safety glasses with side shields tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).                                             |
| Skin and body protection | : Laboratory coat.                                                                                                                                                           |
| Hygiene measures         | : Wash hands after working with substance.                                                                                                                                   |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|                |                                    |
|----------------|------------------------------------|
| Appearance     | : Liquid                           |
| Color          | : Red to orange, clear solution    |
| Odor           | : Faint, aromatic (benzyl alcohol) |
| Odor Threshold | : No data available                |

|                                        |                                            |
|----------------------------------------|--------------------------------------------|
| pH                                     | : No data available                        |
| Melting point/freezing point           | : approx. 0 °C (32 °F)                     |
| Boiling point/boiling range            | : approx. 100 °C (212 °F)                  |
| Flash point                            | : Not applicable (aqueous solution)        |
| Evaporation rate                       | : No data available                        |
| Flammability (solid, gas)              | : Not flammable                            |
| Upper/lower explosion limit            | : Not applicable                           |
| Vapor pressure                         | : approx. 23 hPa at 20 °C (water)          |
| Relative vapour density                | : No data available                        |
| Relative density                       | : approx. 1.0                              |
| Water solubility                       | : Completely miscible                      |
| Partition coefficient: n-octanol/water | : No data available                        |
| Autoignition temperature               | : Not applicable                           |
| Decomposition temperature              | : No data available                        |
| Viscosity                              | : No data available                        |
| Explosive properties                   | : Not explosive                            |
| Oxidizing properties                   | : None                                     |
| Molecular weight                       | : See section 3 (multi-component solution) |

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## SECTION 10. STABILITY AND REACTIVITY

|                                    |                                                                                          |
|------------------------------------|------------------------------------------------------------------------------------------|
| Reactivity                         | : No data available                                                                      |
| Chemical stability                 | : The product is chemically stable under standard ambient conditions (room temperature). |
| Possibility of hazardous reactions | : No hazardous reactions known under normal conditions of use.                           |
| Conditions to avoid                | : Freezing, excessive heat, direct light.                                                |
| Incompatible materials             | : Strong oxidizing agents.                                                               |
| Hazardous decomposition products   | : In the event of fire: see section 5                                                    |

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## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

Not classified. The amino acid and vitamin-type components have low acute toxicity.

#### Skin corrosion/irritation

Not classified.

#### Serious eye damage/eye irritation

Not classified. May cause mild, transient irritation.

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

Not applicable

**11.2 Additional Information**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated for this mixture.

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**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

This product neither contains, nor was manufactured with, a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A + B).

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**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

- |                        |   |                                                                                                                                                                                                                                                             |
|------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste from residues    | : | Waste material must be disposed of in accordance with national, state, and local regulations using a licensed waste disposal contractor. Leave chemicals in original containers. No mixing with other waste. Do not dispose of in household trash or sewer. |
| Contaminated packaging | : | Handle uncleaned containers like the product itself.                                                                                                                                                                                                        |

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**SECTION 14. TRANSPORT INFORMATION**

**International Regulations**

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**National Regulations**

#### 49 CFR (DOT)

Not regulated as a dangerous good

Poison Inhalation Hazard : No

Special precautions for user : Not classified as dangerous in the meaning of transport regulations.

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## SECTION 15. REGULATORY INFORMATION

### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

### SARA 302 / 304 Extremely Hazardous Substances

This material does not contain any components with a section 302 EHS TPQ or section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Clean Air Act

This product does not contain any hazardous air pollutants (HAP) as defined by the U.S. Clean Air Act Section 112 (40 CFR 61), nor any Class I or Class II ODS.

### Clean Water Act

This product does not contain any Hazardous Substances listed under Section 311, Table 116.4A, or toxic or priority pollutants under Section 307.

## US State Regulations

Massachusetts Right To Know : Benzyl alcohol (100-51-6)

Pennsylvania Right To Know : Benzyl alcohol (100-51-6)

Maine / Vermont / Washington  
Chemicals of High Concern : Product does not contain any listed chemicals.

California Prop. 65 : This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

## Inventories

TSCA : Product contains substance(s) not listed on the TSCA inventory. Supplied for research and development use only under 40 CFR 720.36.

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## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

AIHA - American Industrial Hygiene Association; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; DOT - Department of Transportation; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA-DGR - International Air Transport Association Dangerous Goods Regulations; IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population; NIOSH - National Institute for Occupational Safety and Health; NTP - National Toxicology Program; ODS - Ozone Depleting Substance; OSHA - Occupational Safety and Health Administration; PPE - Personal Protective Equipment; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; WEEL - Workplace Environmental Exposure Level.

For research use only. Not for human or veterinary use. The information is believed to be correct but is not exhaustive and shall be used solely as a guideline, based on current knowledge of the chemical substance or mixture, and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. 4AminoLabs shall not be held liable for any damage resulting from handling or from contact with the above product. The burden of safe use rests with the user.

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