

# Safety Data Sheet

Revision date 25-Dec-2023

Version 1.0

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

### Identification of the substance or mixture

Product code EG15601  
Product name LightNing® ApaLI

### Company/undertaking identification

**Jiangsu Yugong Biotech Co., Ltd.**  
Building E, International Pharmaceutical Innovation Industrial Park,  
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**For Research Use Only. Not for use in diagnostic procedures.**

## SECTION 2: Hazards identification

### GHS Classification

Signal Word None  
Health hazards Not classified  
Physical hazards Not classified  
Hazard Statements Not Applicable  
Precautionary Statements Not Applicable

### Principle Routes of Exposure

#### Potential Health Effects

Eyes May cause eye irritation with susceptible persons  
Skin May cause skin irritation in susceptible persons  
Inhalation May be harmful by inhalation.  
ingestion May be harmful if swalloweed

### Specific effects

Carcinogenic effects None

|                              |                                  |
|------------------------------|----------------------------------|
| <b>Mutagenic effects</b>     | None                             |
| <b>Reproductive toxicity</b> | None                             |
| <b>Sensitization</b>         | None                             |
| <b>Target Organ Effects</b>  | None under normal use conditions |

**Other hazards**

Not Applicable

**HMIS**

|              |   |
|--------------|---|
| Health       | 0 |
| Flammability | 0 |
| Reactivity   | 0 |

**SECTION 3: Composition/information on ingredients**

| Chemical Name | OSHA PEL                                    | OSHA PEL<br>(Ceiling) | ACGIH OEL<br>(TWA) | ACGIH OEL<br>(STEL) |
|---------------|---|-----------------------|--------------------|---------------------|
| Glycerol      | 15 mg/m <sup>3</sup><br>5 mg/m <sup>3</sup> | None                  | None               | None                |

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

**SECTION 4: First aid measures**

**Description of first aid measures**

|                           |   |
|---------------------------|---|
| <b>Inhalation</b>         | Remove to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration                                   |
| <b>Eye contact</b>        | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.                        |
| <b>Skin contact</b>       | Rinse cautiously with water for several minutes. If symptoms occur, obtain medical advice.  |
| <b>Ingestion</b>          | Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice |
| <b>Note to physicians</b> | Treat symptomatically.  |

**Most important symptoms and effects, both acute and delayed**

Not Applicable.

**Indication of any immediate medical attention and special treatment needed**

None.

**SECTION 5: Firefighting measures**

**Extinguishing media**

**Suitable extinguishing media** Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical.

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus and protective suit.

**Special hazards arising from the substance or mixture**

Not known

**Advice for firefighters**

Standard procedure for chemical fires.

**SECTION 6: Accidental release measures**

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

Ensure adequate ventilation

Always wear recommended Personal Protective Equipment

Use personal protection equipment

See section 8 for more information

**Environmental precautions**

Prevent further leakage or spillage if safe to do so

**Methods and material for containment and cleaning up**

Soak up with inert absorbent material.

**Reference to other sections**

See section 8 for more information.

**SECTION 7: Handling and storage**

**Precautions for safe handling**

Use personal protective equipment as required. No special handling advices are necessary.

**Storage Conditions**

Store at -25°C to -15°C.

**Specific end use(s)**

For research use only.

## SECTION 8: Exposure controls/personal protection

### Control parameters

|                             |   |
|-----------------------------|---|
| <b>Exposure Limits</b>      | Contains no substances with occupational exposure limit values. |
| <b>Engineering measures</b> | Ensure adequate ventilation, especially in confined areas       |

### Exposure controls

#### Personal Protective Equipment

|                                 |   |
|---------------------------------|---|
| <b>Respiratory protection</b>   | In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards. |
| <b>Hand protection</b>          | Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.   |
| <b>Eye protection</b>           | Tight sealing safety goggles  |
| <b>Skin and Body Protection</b> | Wear suitable protective clothing.  |
| <b>Hygiene measures</b>         | Handle in accordance with good industrial hygiene and safety practice   |

|  |  |
|--|--|
| <b>Environmental exposure controls</b> | No special environmental precautions required. |
|--|--|

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

|   |             |
|---|-------------|
| <b>Physical state</b>                         | liquid      |
| <b>Color</b>                                  | Transparent |
| <b>Odor</b>                                   | No data     |
| <b>Molecular Weight</b>                       | No data     |
| <b>Melting point / melting range</b>          | No data     |
| <b>Boiling point / boiling range</b>          | No data     |
| <b>Flammability (solid, gas)</b>              | No data     |
| <b>Lower explosion limit</b>                  | No data     |
| <b>Upper explosion limit</b>                  | No data     |
| <b>Flash point</b>                            | No data     |
| <b>Autoignition Temperature</b>               | No data     |
| <b>Decomposition temperature</b>              | No data     |
| <b>pH</b>                                     | No data     |
| <b>Evaporation rate</b>                       | No data     |
| <b>Viscosity</b>                              | No data     |
| <b>Solubility</b>                             | No data     |
| <b>Partition coefficient: n-octanol/water</b> | No data     |

|                                 |         |
|---------------------------------|---------|
| <b>Vapor Pressure</b>           | No data |
| <b>Specific gravity</b>         | No data |
| <b>Relative density</b>         | No data |
| <b>Vapor density</b>            | No data |
| <b>Explosive properties</b>     | No data |
| <b>Oxidizing properties</b>     | No data |
| <b>Particle characteristics</b> | No data |

### Other information

#### Information with regard to physical hazard classes

No information available

#### Other safety characteristics

No information available

### SECTION 10: Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | None known.   |
| <b>Chemical stability</b>                 | Stable under normal conditions.   |
| <b>Possibility of hazardous reactions</b> | Hazardous reaction has not been reported.   |
| <b>Conditions to avoid</b>                | No information available.   |
| <b>Incompatible materials</b>             | Strong acids and oxidizing agents. Acetic anhydride. Isocyanates. Ammonia. Bases. |
| <b>Hazardous decomposition products</b>   | Carbon oxides.  |

### SECTION 11: Toxicological information

#### Acute Toxicity

| Chemical Name | LD50<br>(oral, rat/mouse) | LD50<br>(dermal, rat/rabbit) | LC50<br>(inhalation, rat/mouse) |
|---------------|---------------------------|------------------------------|---------------------------------|
| Glycerol      | = 12600 mg/kg Oral        | No data available            | >570 mg/m <sup>3</sup> (Rat)    |

#### Information on toxicological effects

There is no evidence available indicating acute toxicity.

#### Principal Routes of Exposure

|                                  |  |
|----------------------------------|--|
| <b>Acute toxicity</b>            | Data are conclusive but insufficient for classification. |
| <b>Skin corrosion/irritation</b> | May cause skin irritation in susceptible persons.        |

|  |  |
|--|--|
| <b>Serious eye damage/irritation</b>                           | May cause eye irritation with susceptible persons.       |
| <b>Respiratory or skin sensitization</b>                       | Data are conclusive but insufficient for classification. |
| <b>Specific target organ toxicity (STOT)–single exposure</b>   | None under normal use conditions.                        |
| <b>Specific target organ toxicity (STOT)–repeated exposure</b> | None under normal use conditions..                       |
| <b>Carcinogenicity</b>   | None.  |
| <b>Germ cell mutagenicity</b>                                  | Data are conclusive but insufficient for classification. |
| <b>Reproductive toxicity</b>                                   | None.  |
| <b>Aspiration hazard</b>                                       | Data are conclusive but insufficient for classification. |

## SECTION 12: Ecological information

### Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

|                                      |                                    |
|--------------------------------------|------------------------------------|
| <b>Mobility in soil</b>              | see log Pow.                       |
| <b>Persistence and degradability</b> | No information available.          |
| <b>Bioaccumulative potential</b>     | Material does not bioaccumulate. . |

### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

|                              |                          |
|------------------------------|--------------------------|
| <b>Other adverse effects</b> | No information available |
|------------------------------|--------------------------|

## SECTION 13: Disposal considerations

### Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

## SECTION 14: Transport information

**IATA / ADR / DOT-US / IMDG**

Not regulated in the meaning of transport regulation

|                                   |   |
|-----------------------------------|---|
| <b>UN number or ID number</b>     | Not Applicable  |
| <b>UN proper shipping name</b>    | No dangerous good in sense of these transport regulations |
| <b>Transport hazard class(es)</b> | Not Applicable  |
| <b>Packing group</b>              | Not Applicable  |

**Environmental hazards** Not Applicable

**Special precautions for user** Not Applicable

**Maritime transport in bulk according to IMO instruments**

Not Applicable

**SECTION 15: Regulatory information****US Federal Regulations****SARA 313**

This product is not regulated by SARA.

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain HAPs.

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**WHMIS Hazard Class**

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

**National Regulations – Brazil**

Not regulated.

**SECTION 16: Other information****References**

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>
- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

**Abbreviations and acronyms**

**TWA** - Time-Weighted Average

**OELs** - Occupational Exposure Limits

**STEL** - Short Term Exposure Limit

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**KECL** - Korean Existing and Evaluated Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**CEPA** - Canadian Environmental Protection Act

**EPA** - Environmental Protection Agency

**OSHA** - Occupational Safety and Health Administration of the US Department of Labor

**IATA** - International Air Transport Association

**DOT** - Department of Transportation

**IMDG** - International Maritime Dangerous Goods

**ACGIH** - American Conference of Governmental Industrial Hygienists

**NIOSH** - National Institute for Occupational Safety and Health

**AIHA** - American Industrial Hygiene Association

**HMIS** - Department of Defense Hazardous Materials Information System

**NTP** - National Toxicology Program

**IARC** - International Agency for Research on Cancer

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

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**End of Safety Data Sheet**