SAFETY DATA SHEET
Product: LithoFoam® VC
Version: 11/2018

Section 1: Identification of the substance/mixture and of the company

1.1. Product identifier

- **Product name**: LithoFoam® VC
- **Use of the product**: Molecular engineered protein for LithoPore® Aerated Concrete – LPAC applications

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

for industrial use only.

1.3. Details of the supplier of the safety data sheet

- **Manufacturer**:
  Luca Industries International GmbH
  Phone: +49 30 457989680
  Fax: +49 30 457989689
  Email: info@luca-industries.com

1.4. Emergency telephone number: +49 30 457989680 (during normal business hours)

Section 2: Hazards Identification

2.1. Classification of the substance or mixture

- **Classification according to Regulation (EC) nr. 1272/2008**
  H315: Causes skin irritation.
  H319: Causes serious eye irritation.

- **Classification according to Directive 67/548/EEC or 1999/45/EC**:
  H315: Causes skin irritation.
  H319: Causes serious eye irritation.

2.2. Label elements

- **Hazard Pictograms**:
- **Signal word**: warning
- **Precautionary statements**:
  P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
  P301+P330– IF SWALLOWED: Rinse mouth.
  P337+313: If eye irritation persists, get medical advice/attention.
  P332+313: If skin irritation occurs, get medical advice/attention
  P302+P352 – IF ON SKIN: Wash with soap and water.
2.3. Other hazards

No further informations available.

Section 3: Compositions/information on ingredients

3.1. Substances

3.2. Mixture

Special composition of engineered proteins
Modified surface-active agents
Water

Section 4: First aid measures

4.1. Description of first aid measures

- Inhalation: not applicable
- Skin Contact: remove any contaminated clothing and wash skin and hair thoroughly with running water.
- Eye Contact: wash in and around the eye area with large amounts of water for at least 15 minutes. Seek medical advice if irritation persists.
- Ingestion: Rinse mouth with water. Give a glass of water. Consult medical doctor. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects, both acute and delayed

No further informations available

4.3. Indication of any immediate medical attention and special treatment needed

No further informations available

Section 5: Firefighting measures

5.1. Suitable extinguishing agents:

No fire risk. Use firefighting measures that suit the environment.

5.2. Special hazards arising from the substance or mixture:

Not-combustible material. No hazardous combustion products are known.

5.3. Advice for firefighters

It is recommended to wear self-contained breathing apparatus.
Section 6: Accidental release measure

6.1. Personal precautions, protective equipment and emergency procedures:

It is recommended to wear protective equipment (protective gloves and goggles) to prevent skin and eye contact.

6.2. Environmental precautions: If spilt, the product solution should be washed away (diluted) with plenty of water.

6.3. Methods and material for containment and cleaning up:

Soak up the spill with inert absorbent material (e.g., paper towels). Place the waste in a suitable, closed container (e.g., a plastic bag) for disposal. Wash away any residue with plenty of water.

6.4. Reference to other sections: No release of hazardous substances.

Section 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Wear personal protective equipment, such as a lab coat, gloves and eye protection. Do not get into eyes, on skin or clothing. Do not breathe in vapours or dust from dried-up solution. Do not ingest.

7.2. Conditions for safe storage, including any incompatibilities

- Requirements for storage rooms and containers: Keep in a tightly-closed container. Store in a cool, dry, place and out of direct sunlight.
- Advice on storage compatibility: no special requirements
- Further informations about storage conditions:
  - Recommended storage temperature: 10-25°C
  - Storage stability: in case of intended storage in compliance with instructions 1 year storable.
  - Storage class: 12

Color changes during storage does not impair the effect of the product.

7.3. Specific end use(s) No further informations available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

- Workplace Exposure Limit: No exposure limits have been published for this product.
- Technical measures to prevent exposure: Keep containers closed when not in use.

8.2. Exposure controls:
• **General safety and hygiene measures:**
  It is recommended to wear skin and eye protection (protective gloves and goggles).

• **Hygiene:** Avoid contact with skin and eyes. Keep the material away from food and drink. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

### Section 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

- **Appearance:** liquid, yellowish to light brown
- **Odor:** mild, depending on product
- **Odor treshold:** not available
- **pH (10 g/L):** 7.00-8.00
- **Melting point/freezing point:** not available
- **Boiling point:** not available
- **Flashpoint:** not flammable
- **Flammability:** not flammable
- **Upper/lower flammability or explosive limits:** not explosive
- **Vapor pressure:** 23 hPa (20°C)
- **Vapor density:** not available
- **Relative Density:** 1.00 - 1.20 (20°C)
- **Solubility:** unlimited solubility in water
- **Partition coefficient (n-octanol/water):** not available
- **Auto-ignition temperature:** not combustible
- **Decomposition temperature:** not available
- **Viscosity:** not available
- **Ignition point (°C):** not-combustible
- **Explosive properties:** not explosive
- **Oxidizing properties:** not oxidizing

#### 9.2. Other information: No further informations available.

### Section 10: Stability and reactivity

#### 10.1. Reactivity: Stable under recommended conditions.

#### 10.2. Chemical stability:
Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

#### 10.3. Possibility of hazardous reactions: Will not occur
10.4. **Conditions to avoid:** No further informations available

10.5. **Incompatible materials:** No further informations available.

10.6. **Hazardous decomposition products:** carbon dioxide, carbon monooxide, sulfur oxides.

**Section 11: Toxicological information**

11.1. **Information on toxicological effects**

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label.

- **Acute toxicity:** Oral toxicity (LD50, rat) 12.9 g per kg. Irritation of skin (rabbit) 500 mg/24 hours.
- **Skin corrosion/irritation:** Prolonged skin contact may cause temporary irritation.
- **Serious eye damage/eye irritation:** Direct contact with eyes may cause temporary irritation.
- **Respiratory or skin sensitization:** No sensitising effects known.
- **Germ cell mutagenicity:** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
- **Carcinogenicity:** This product is not considered to be a carcinogen.
- **Reproductive toxicity:** This product is not expected to cause reproductive or developmental effects.
- **Specific target organ toxicity single exposure:** Not classified.
- **Specific target organ toxicity repeated exposure:** Not classified.
- **Aspiration hazard:** Not an aspiration hazard.

**Section 12: Ecological information**

12.1. **Toxicity:**

**Aquatic toxicity:**

Vertebrates: The 96 hr LC50 to Fathead minnows was 290 mg/L

Invertebrates: LC50 (Ceriodaphnia dubia, 48-hr): 55.5 mg/L

Algae: EC50>1200 mg/L

Microorganisms: IC50 (3 hrs): 4800 mg/L
12.2. **Persistence and degradability:**

No impediment to the biodegradability of activated sludge in purification plants.

Readily biodegradable (degradation: >95% in 28 days).

12.3. **Bioaccumulative potential:**

Biological assimilation of the inorganic components: 100%

12.4. **Mobility in soil:** Log Koc 1.545.

12.5. **Results of PBT and vPvB assessment:**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

12.6. **Other adverse effects:** no harmful effects.

### Section 13: Disposal considerations

13.1. **Waste treatment methods:** Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations. Large quantities are returnable.

### Section 14: Transport information

14.1. **UN-Number:** not applicable

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:** No environmental hazards

14.6. **Special precautions for user:** no special precautions necessary

14.7. **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** not applicable

### Section 15: Regulatory information

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

- National regulations: General Classification Guideline for Preparations of the EC (BetrSichV): not applicable

- Water hazard class: WGK 1 (Low water hazard)

• **Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances**: not applicable

• **Hazardous ingredients for labeling**: not applicable.

**Section 16: Further informations**

This information applies to the product LithoFoam® VC.
It does not constitute a properties guarantee and does not apply to any subsequent products possibly derivating therefrom.