

SAFETY DATA SHEET

Rhamnolipid

Version 1.1 Revision Date 6/30/2022 Print Date 12/6/2023

| 1. | IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING | | |
|--|---|---|--|
| 1.1 | Product identifiers Product name | [:] Rhamnolipids Biosurfactant | |
| | Product Number Brand | : RL-P 2225 : 淑丽德 [®] | |
| 1.2 Other means of identification | | ation | |
| | No data available | | |
| 1.3 | Relevant identified uses of the substance or mixture and uses advised against | | |
| | For oil exploration, pollutio | n control, soil remediation, agriculture, fodder, etc. | |
| 1.4 Details of the supplier of the safety data sheet | | the safety data sheet | |
| | Company | : Shaanxi Deguan Biotechnologyh Co., Ltd. | |
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| 2. | HAZARDS IDENTIFICATI | ON | |

2.1 GHS Classification

Not a dangerous substance or mixture according to the Globally Harmonised System (GHS).

2.2 Other hazards

none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Product form

Mixture.

3.2 Main ingredients information

The effective content of rhamnolipid is about 25%, The inorganic salt carrier is about 70-75%, and the moisture content is $\leq 8\%$.



FIRST AID MEASURES 4.

4.1 **Description of first aid measures**

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

- 4.2 Most important symptoms and effects, both acute and delayed To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
- 4.3 Indication of any immediate medical attention and special treatment needed No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

- 5.2 Special hazards arising from the substance or mixture No data available
- 5.3 Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.
- **Further information** 5.4 No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures Avoid inhalation.

6.2 **Environmental precautions**

The product is biodegradable and does not pose a hazard to the environment, but it is not recommended to direct the high concentration product to the drains and river.

6.3 Methods and materials for containment and cleaning up Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 **Reference to other sections** For disposal see section 13.

7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling Provide appropriate exhaust ventilation at places where dust is formed.
- 7.2 Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
- 7.3 Specific end use(s)

No data available



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

We are not aware of any national exposure limit.

8.2 Exposure controls

Appropriate engineering controls General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Use ordinary work clothes, such as ordinary work clothes in the laboratory, and ordinary work clothes in the factory.

Respiratory protection

Under normal circumstances, no special protection is required. If you need to filter the odor, you can use ordinary masks or higher-level masks that comply with local regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| a) | Appearance | White to yellow powder | |
|----|--|--------------------------------------|--|
| b) | Odor | Characteristic odor | |
| c) | Odor Threshold | No data available | |
| d) | рН | 7.0-9.0(10% aq.) at room temperature | |
| e) | Melting point/freezing point | No data available | |
| f) | Initial boiling point and boiling range | No data available | |
| g) | Flash point | No data available | |
| h) | Evaporation rate | No data available | |
| i) | Flammability (solid, gas) | No data available | |
| j) | Upper/lower flammability or explosive limits | No data available | |
| k) | Relative density | 0.3-0.8g/cm ³ | |



| I) | Water solubility | Soluble in water and organic solvents |
|----|------------------------|---------------------------------------|
| | | |
| m) | Partition coefficient: | |
| | n-octanol/water | No data available |
| n) | Auto-ignition | |
| | temperature | No data available |
| o) | Decomposition | |
| | temperature | No data available |
| p) | Oxidative properties | No data available |
| q) | Surface tension | ≤35 mN/m |
| r) | Viscosity | No data available |

10. STABILITY AND REACTIVITY

10.1 Reactivity No data available

- **10.2 Chemical stability** No data available
- **10.3 Possibility of hazardous reactions** No data available
- **10.4 Conditions to avoid** No data available
- **10.5 Incompatible materials** Do not use with strong acids or strong bases.
- Hazardous decomposition products
 Hazardous decomposition products formed under fire conditions. Carbon oxides
 Other decomposition products No data available.
 In the event of fire: see section 5.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity test (LD₅₀>2000mg/kg) .

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation No data available

Respiratory or skin sensitisation 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.

Specific target organ toxicity - single exposure



No data available

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard

No data available

Potential health effects

| Inhalation | May be harmful if inhaled. May cause respiratory tract irritation. |
|------------|--|
| Ingestion | May be harmful if swallowed. |
| Skin | It is harmless to the skin and will not cause skin irritation. |
| Eyes | May cause eye irritation. |

Signs and Symptoms of Exposure

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

11.2 Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

- 12.1 Toxicity No data available
- 12.2 Persistence and degradability Biodegradability
- **12.3 Bioaccumulative potential** No data available
- **12.4 Mobility in soil** No data available
- **12.5 Results of PBT and vPvB assessment** No data available
- **12.6 Other adverse effects** No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number ADR/RID: -

IMDG: -

IATA-DGR: -

14.2 UN proper shipping name

ADR/RID:Not dangerous goodsIMDG:Not dangerous goodsIATA-DGR:Not dangerous goods

14.3 Transport hazard class(es)



| | ADR/RID: - | IMDG: - | IATA-DGR: - |
|------|---|---------------------------|--------------|
| 14.4 | Packaging group | | |
| | ADR/RID: - | IMDG: - | IATA-DGR: - |
| 14.5 | Environmental hazards ADR/RID: no | IMDG Marine pollutant: no | IATA-DGR: no |
| 14.6 | Special precautions for user No data available | | |

15. REGULATORY INFORMATION

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

National regulatory information

Please pay attention on the waste treatment should comply with local regulations requirement.

16. OTHER INFORMATION

16.1 Further information

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