



Material Safety Data Sheet

Rhamnolipid Aqueous Solution

1. Product Identification

Form: Liquid
Color: Light Green
Odor: Soapy

2. Hazardous Ingredients

Hazardous Components: None known
Chemical Name(s): Di-Rhamnolipid; Mono-Rhamnolipid

Component Material	CAS #	Exposure Limit
Di-Rhamnolipid or RLL	4348-76-9	None Established
Mono-Rhamnolipid or RLL	37134-61-5	None Established

3. Physical / Chemical Data

Water Solubility: Soluble at neutral pH

4. Fire and Explosion Data

PH: 7-8 when diluted with water
Flash Point: N/A
Special Fire Fighting Procedures: None
Extinguishing Media: Water

5. Reactivity Data

Stability: Not reactive
Conditions to Avoid: Excessive heat or freezing; extremes of pH
Hazardous Byproducts: None
Hazardous Polymerization: Will not occur
Incompatibility: Avoid oxidizing agents

6. Health Hazard Data

Eye Contact: Excess redness and swelling of the conjunctiva may occur. Causes moderate to severe irritation, experienced as discomfort or pain, excess blinking and tear production, with marked excess redness and swelling. Corneal injury may occur.

First Aid: Immediately flush with water for at least 15 minutes. DO NOT remove contact lenses, if worn. Obtain medical attention without delay, preferably from an ophthalmologist.

Recommended Precautions:
Safety goggles. Avoid creating mist or an enclosed environment.

Skin Contact: Exposure can cause irritation if a person has a history of dermal allergic reaction.

First Aid: Wash with soap and water.

Recommended Precautions:
Limit exposure. Use rubber gloves. Do not handle product directly.

Ingestion: Considered non-toxic but can lead to nausea or diarrhea.

First Aid: Give two glasses of water to dilute product, do not induce vomiting. Contact physician immediately.

Recommended Precautions:
Store in safe place. Wear protective mask.

Inhalation: Causes Irritation.

First Aid: Calm the individual, allow plenty of fresh air, and loosen clothing around neck. Contact physician.

Recommended Precautions:
Use approved respiratory mask. Avoid creating mist where possible. Use in properly ventilated area.

General Precautions:
Treat as you would any chemical or biological material. Always wash hands thoroughly after use.

NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. In case of massive overexposure, victim should be observed for several days for delayed effects. Any material aspirated during vomiting may cause lung injury. Therefore, vomiting should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (e.g. gastric lavage after endotracheal intubations). Studies involving the sustained occluded contact of undiluted similar material with rabbit skin indicate that such conditions may result in the development of inflammatory changes in the lungs. This material can cause lung injury if deposited as a liquid directly into the lung. However, no lung injury was observed in rats inhaling aerosols of this surfactant for four hours.

7. Storage and Handling

Recommended Storage:

Store in cool, dry conditions. Storage temperature should be between 41 degrees F and 104 degrees F (5 C and 40 C).

Precautions on Handling:

No danger from handling packaged material. Ensure packaged containers remain sealed.

Waste Disposal:

Small spillages can be washed away with large amounts of water. Large spillages, if contained, can be returned to container. Check local and state authority requirements in the case of disposing of large quantities.

8. Biological Hazard Data

Other: The product has been shown to be free of *Pseudomonas*, *Salmonella* and *Shigella* using the procedures outlined by USP and the USDA. This product does not contain the strain *Pseudomonas aeruginosa*.

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