

**1. Product Identification**

Form: Liquid  
 Odor: No scent

**2. Hazardous Ingredients**

Hazardous Components:

Material		CAS #	Exposure Limit
Linear alkylbenzene sulfonate	15-40%	25155-30-0	N/AV
Linear ethoxylated	7-13%	68131-39-5	N/AV

**3. Physical / Chemical Data**

Water Solubility: Moderate - disperses in water

**4. Fire and Explosion Data**

pH: 6.5 to 7.5 when mixed with water  
 Flash Point: N/A  
 Special Fire Fighting Procedures: None  
 Extinguishing Media: Water

**5. Reactivity Data**

Stability: Stable  
 Conditions to Avoid: Accumulation of product in confined area  
 Hazardous Byproducts: None  
 Hazardous Polymerization: Will not occur  
 Incompatibility: Normally unreactive; however, avoid strong bases at high temperatures, strong acids, strong oxidizing agents and materials reactive with hydroxyl compounds.

**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.

Effects of Repeated Overexposure: Repeated skin contact may cause dermatitis.

**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, emesis 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.  
 Other Precautions: Surfactants can cause foaming problems in biological wastewater treatment plants and other high shear operations.

**8. Biological Hazard Data**

Microbial Formulation: The product formulation contains a range of naturally-occurring microorganisms which are known to be non-pathogenic to man or animals.  
 Other: The product has been shown to be free of Salmonella and Shigella using the procedures outlined by AOAC and the USDA. This product does not contain the strain pseudomonas aeruginosa.

Prepared by: MSDS Coordinator, Jan 4<sup>th</sup> 2003

Supplied by: Advance Biotechnologies of Canada, #101, 19623 56 Ave, Langley, BC V3A 3X7 Toll-Free 1-877-533-3901

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