

## SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	SILV-EX Foam Concentrate	Other Names	None
Recommended Use	The intended or recommended use of this preparation is as a fire extinguishing agent.		
Supplier Name	Wormald	Address	Unit 1, 2-8 South Street Rydalmere, NSW 2116 AUSTRALIA
Telephone No.	133 166	Emergency Telephone No.	133 166 or 000
		Date Prepared	May 2008

## SECTION 2: HAZARDS IDENTIFICATION

Hazard Classification	Not hazardous		
Safety Phrase(s)	2, 7, 16, 24, 26	Risk Phrase(s)	11, 36

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE		
Chemical Identity of the Pure Substance	Common Name / Synonyms	CAS Number
Not applicable	Not applicable	Not applicable
MIXTURE		
Chemical Identity of Ingredients	Proportion of Ingredients	CAS Number
Proprietary mixture consisting of sodium and ammonium salts of fatty alcohol ether sulfates (C <sub>8</sub> -C <sub>18</sub> ), higher alcohols, and water.	>70 %	Not applicable
Diethylene Glycol Monobutyl Ether	18 %	112-34-5
Ethanol (Ethyl Alcohol)	8 %	200-578-6

## SECTION 4: FIRST AID MEASURES

Description of Necessary First Aid Measures	EYE CONTACT	Flush with water for a minimum of 15 minutes while holding lids open. If irritation persists, seek medical attention.
	SKIN CONTACT	Wash affected area with soap and water. If irritation persists, seek medical attention.
	INHALATION	Remove from exposure. If irritation persists, seek medical attention.
	INGESTION	If the patient is conscious, dilute by drinking large quantities of water.
Medical Attention and Special Treatment	See above.	
Aggravated Medical Conditions Caused by Exposure	Diseases of the kidney and liver	

## SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media	This is an extinguishing agent	Hazards From Combustion Products	Not known, however, carbon monoxide and oxides of nitrogen and sulphur may be produced during fire conditions.
Special Protective Precautions and Equipment for Fire Fighters	None	Hazchem Code	Not hazardous

## SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Prevent skin and eye contact.
Methods and Materials for Containment and Clean Up	Use an absorbent material such as diatomaceous earth, sawdust, etc., and sweep up. As much as possible, keep from being washed into surface waters.

## SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling	Care should be taken in handling all chemical substances and preparations.
Conditions for Safe Storage, Including any Incompatibilities	No special conditions are needed for safe storage. Store in original container. Keep tightly closed until used. As much as possible, keep from being washed into surface waters.

**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

National Exposure Standards	Substance	ES-TWA		ES-STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
	Ethyl Alcohol	1000	1880	-	-
Engineering Controls	Not available	Biological Limit Controls		Not available	
Personal Protection Equipment	Chemical goggles and chemical resistant gloves are recommended.				

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	Pale straw yellow, clear liquid	Odour	Mild, sweet odour
pH	7.0-8.5	Vapour Pressure	Not determined
Vapour Density (air = 1)	Not determined, but <1	Boiling Point / Range	65-70°C (initial boiling)
Freezing / Melting Point (specify)	Not available	Solubility in Water	Completely soluble
Specific Gravity or Density	About 1	Flash Point	40°C
Upper and Lower Flammable (explosive) Limits in Air	Not explosive	Ignition Temperature	Does not ignite

**SECTION 10: STABILITY AND REACTIVITY**

Chemical Stability	Stable	Conditions to Avoid	None
Incompatible Materials	Reactive metals, electrically energised equipment, any material reactive with water, or strong oxidisers.	Hazardous Decomposition Products	Not known, however, carbon monoxide and oxides of nitrogen and sulphur may be produced during fire conditions. Hydrogen sulphide may be produced during bacterial decomposition under anaerobic conditions.
Hazardous Reactions	None		

**SECTION 11: TOXICOLOGICAL INFORMATION**

Health Effects From the Likely Routes of Exposure	EYE CONTACT	May cause mild to moderate transient irritation.
	SKIN CONTACT	May cause mild transient irritation and/or dermatitis.
	INHALATION	Not an expected route of entry.
	INGESTION	Irritating to mucous membranes. Large oral doses could produce narcosis.
Acute Overexposure	See above	
Chronic Overexposure	Possible problems with kidneys, lungs, gastrointestinal, spleen, behavioural (sleep, motor, headache), liver, endocrine, blood, developmental	

**SECTION 12: ECOLOGICAL INFORMATION**

Ecotoxicity	<p>Components:</p> <p>Diethylene glycol monobutyl ether:</p> <p>Fish, Lepomis macrochirus: LC<sub>50</sub> (96 hrs) 1300 mg/L</p> <p>Carrassius auratus: LC<sub>50</sub> (24 hrs) 2700 mg/L</p> <p>Daphnids, Daphnia magna: EC<sub>50</sub> (24 hrs) 3184 mg/L</p> <p>Algae, Scenedesmus subspicatus: EC<sub>50</sub> (96 hrs) &gt;100 mg/L</p> <p>Ethanol:</p> <p>Fish, Oncorhynchus mykiss: LC<sub>50</sub> (24 hrs) 11200 mg/L</p> <p>Alburnus alburnus: LC<sub>50</sub> (96 hrs) 11000 mg/L</p> <p>Daphnids, Daphnia magna: EC<sub>50</sub> (24 hrs) 10800 mg/L</p>
Mobility	<p>Diethylene glycol monobutyl ether:</p> <p>Should not partition from a water column to organic matter contained in sediments and suspended solids.</p> <p>Ethanol:</p> <p>Its low octanol/water partition coefficient indicates that its absorption to soil will be low.</p>
Persistence and Degradability	<p>Diethylene glycol monobutyl ether:</p> <p>Indirect photodegradation is about 50 % in 3.5 hours.</p> <p>Aerobic degradation with adapted activated sludge is 60 % after 28 days.</p> <p>COD = 2080 mg/g substance.</p> <p>BOD<sub>5</sub> = 250 mg O<sub>2</sub>/g substance.</p> <p>Theoretical oxygen demand = 2.17 mg/mg</p> <p>Ethanol:</p> <p>Indirect photodegradation is about 50 % in 6 hours.</p> <p>Aerobic degradation with adapted activated sludge is 74 % after 5 days.</p> <p>COD = 1700 mg/g substance</p> <p>BOD<sub>5</sub> = 0.8 kg/L</p>
Bioaccumulative Potential	<p>Diethylene glycol monobutyl ether: Should not bioaccumulate. Estimated bioaccumulation factor (log BCF) = 0.46</p> <p>Ethanol: Will not bioaccumulate.</p>
Environmental Fate (Exposure)	<p>Ozone depletion potential: None</p> <p>Photochemical ozone creation potential: None</p> <p>Global warming potential: None</p>

**SECTION 13: DISPOSAL CONSIDERATIONS**

Disposal Methods and Containers	As much as possible, keep from being washed into surface waters. Dispose of in compliance with local, state and Commonwealth regulations.
Special Precautions for Landfill or Incineration	Not available

**SECTION 14: TRANSPORT INFORMATION**

UN Number	Not applicable	UN Proper Shipping Name	Not applicable
Class and Subsidiary Risk	Not applicable	Packing Group	Not applicable
Special Precautions for User	None	Hazchem Code	Not hazardous

**SECTION 15: REGULATORY INFORMATION**

The regulatory status of a material (including its ingredients) under relevant Australian health, safety and environmental legislation.	Not available
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**SECTION 16: OTHER INFORMATION**

Date of Preparation	May 2008
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END OF MSDS