



PRODUCT NAME: SOLBERG 1X3 ATC 1%-3%

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Manufacturer Name SOLBERG SCANDINAVIAN AS, Olsvollstranda, N-5938 Saebovagen NORWAY

Importer Name WORMALD NZ LTD

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Synonym(s) SOLBERG 1X3 ATC 1%-3%

Use(s) FIRE EXTINGUISHING AGENT • FIRE FIGHTING

SDS Date 27 Feb 2009

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Content
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	<20%
SODIUM DECYL SULPHATE	142-87-0	<5
1-PROPANAMINIUM, N-(3-AMINOPROPYL)-2-HYDROXY-N,N-DIMETHYL-3-SULFO-, N-COCO ACYL DERIVS., HYDROXIDES, INNER SALTS	68139-30-0	<2.5
D-GLUCOPYRANOSE, OLIGOMERS, DECYL OCTYL GLYCOSIDES	68515-73-1	<5
NON HAZARDOUS COMPONENTS	N/A	3-6%
WATER	7732-18-5	60-80%

3. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO HAZARDOUS SUBSTANCES (CLASSIFICATION) REGULATIONS 2001

HAZARD CLASSIFICATION

6.3B Substances that are mildly irritating to the skin.

6.4A Substances that are irritating to the eye.

6.9B Substances that are harmful to human target organs or systems

HAZARD STATEMENTS

H316 Causes mild skin irritation.

H320 Causes eye irritation.

H361+ H363 May cause damage to organs through prolonged or repeated exposure

PRECAUTIONARY STATEMENTS

P103	Read label before use. Read Safety Data Sheet before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product
P305+P351+P338	If In Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do continue rinsing.
P309 + P311+314	IF exposed or if you feel unwell get medical advice/attention or call a POISON CENTER.
P332+P313	If skin irritation occurs: Get medical advice/ attention.
P337+P313	If eye irritation occurs: Get medical advice/ attention.

4. FIRST AID MEASURES

Eye	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poison Information Centre or a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator where an inhalation risk exists. Apply artificial respiration if not breathing.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre or a doctor.
Ingestion	For advice, contact a Poisons Information Centre or a doctor (at once). If swallowed, do not induce vomiting.
Medical Advice	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flammability	Non flammable. May evolve toxic gases (hydrocarbons, carbon oxides) when heated to decomposition.
Fire and Explosion	Non flammable. Not Explosive.
Extinguishing	Extinguishing agent.
Hazchem Code	None allocated.

6. ACCIDENTAL RELEASE MEASURES

Spillage	If spilt, absorb with sand or similar. Wear splash-proof goggles, PVC/rubber gloves, coveralls and rubber boots. Collect and place in sealable containers for disposal. Caution: Spill site may be slippery.
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7. STORAGE AND HANDLING

Storage	Store in a cool dry area. Also store removed from reactive metals, electrically energised equipment and any material reactive with water.
Handling	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Stds

Ingredient	Reference	TWA		STEL	
		ppm	mg/m3	ppm	mg/m3
Diethylene Glycol Monobutyl Ether	OSH (NZ)	10.0	67.5	15.0	101.2

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Engineering Controls Do not inhale vapours/fumes. When handling this product, maintain adequate natural ventilation where practicable. Contact emergency personnel.

PPE

Wear splash-proof goggles and rubber or PVC gloves. When using large quantities or where heavy contamination is likely, wear coveralls. Where an inhalation risk exists, wear a Type A-Class P1 (Organic gases/vapours and Particulate) Respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance BROWN YELLOW LIQUID	Solubility (water) SOLUBLE
Odour PLEASANT	Specific Gravity NOT AVAILABLE
pH 8.0	Volatiles NOT AVAILABLE
Vapour Pressure NOT AVAILABLE	Flammability NON FLAMMABLE
Vapour Density NOT AVAILABLE	Flash Point >100°C
Boiling Point 100°C	Upper Explosion Limit NOT RELEVANT
Melting Point -8°C	Lower Explosion Limit NOT RELEVANT
Evaporation Rate NOT AVAILABLE	Autoignition Temperature NOT DETERMINED
Density 1.1	Viscosity NOT DETERMINED

10. STABILITY AND REACTIVITY

Stability	Stable under recommended conditions of storage
Conditions Avoid to	No known conditions to avoid.
Material to Avoid	Incompatible with oxidising agents (eg. hypochlorites, peroxides) and acids (eg. sulphuric acid). Also incompatible with reactive metals (eg. potassium), electrically energised equipment and any material reactive with water.
Decomposition	On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide) and formation of small quantities of sulphur oxides, hydrofluoric acid, hydrogen chloride
Polymerization	Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Low toxicity. This product has the potential to cause adverse acute and chronic health effects with over exposure, however given product dilution in end use and application over exposure is not anticipated with normal use. Chronic over exposure to some glycols may result in kidney, liver and nerve damage.
Eye Irritant.	Contact may result in irritation, lacrimation, pain and redness.
Inhalation	Low. Over exposure at high levels may result in mucous membrane irritation of the nose and throat with coughing. Under extreme temperatures in a fire situation toxic by-products associated with this extinguishing agent and surrounding materials may also be generated.
Skin	Prolonged or repeated contact may result in mild irritation, rash and dermatitis.
Ingestion	Low toxicity. Ingestion may result in gastrointestinal irritation, nausea, vomiting, headache, abdominal pain and diarrhoea. However, due to product form ingestion is considered unlikely. Maintain good personal hygiene standards.
Toxicity Data	DIETHYLENE GLYCOL MONOBUTYL ETHER (112-34-5) LD50 (Ingestion): 2000 mg/kg (guinea pig) LD50 (Skin): 2700 mg/kg (rabbit)

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12. ECOLOGICAL INFORMATION

Environment Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.

Ecotoxicity Diethylene glycol monobutyl ether: Fish LC50 (96hrs) = 1,300 mg/L (*Lepomis macrochinus*); LC50 (24hrs) = 2,700 mg/L (*Carrassius auratus*).

Persistence Diethylene glycol monobutyl ether: Indirect photodegradation is about 50% in 3.5 hours. Aerobic degradation with

Degradability Adapted sludge is 60% after 28 days. COD = 2080 mg/g substance. BOD5 = 250 mg O2/g substance. Theoretical oxygen demand = 2.17 mg/mg. Should not bioaccumulate - estimated bioaccumulation factor (log BCF) = 0.46.

Mobility Diethylene glycol monobutyl ether: Should not partition from a water column to organic matter contained in sediments and suspended solids.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Export the substance from New Zealand as waste ; or Treat the substance so that it is no longer a hazardous substance ; or Discharge the substance into the environment so that, after reasonable mixing, the concentration of the substance in an environmental medium does not exceed any relevant tolerable exposure limit and/or environmental exposure limit set for the substance or any of its components.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO LAND TRANSPORT RULE: DANGEROUS GOODS 2005

NZS 5433:2007, UN, IMDG OR IATA

Shipping Name None Allocated

UN No. None Allocated

Pkg Group None Allocated

DG Class None Allocated

Hazchem Code None Allocated

Subsidiary Risk(s) None Allocated

EPG None Allocated

15. REGULATORY INFORMATION

Approval Code HSR002573

Group Name Fire Fighting Chemicals Group Standard 2006

HSNO Controls Refer to the ERMA website for more information: www.ermanz.govt.nz

16. OTHER INFORMATION

Additional Information

ABBREVIATIONS:

ADB - Air-Dry Basis. BEI - Biological Exposure Indice(s) CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds. CNS - Central Nervous System. EINECS - European INventory of Existing Commercial chemical Substances. IARC - International Agency for Research on Cancer. M - moles per litre, a unit of concentration. mg/m³ - Milligrams per cubic metre. NOS - Not Otherwise Specified. NTP - National Toxicology Program. OSHA - Occupational Safety and Health Administration. pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). ppm - Parts Per Million. RTECS - Registry of Toxic Effects of Chemical Substances. TWA/ES - Time Weighted Average or Exposure Standard.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a SDS report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this SDS report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Report Status This document has been compiled by the retailer of the product and serves as the retailers Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to the retailer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the retailer.

While Tyco has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Tyco accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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SDS Date:27 Feb 2009

Reviewd Responsible Care 21 August 2013

End of Report

