SAFETY DATA SHEET

PRODUCT NAME **ANSULITE AFC-5A (3% Mil. Spec. AFFF CONCENTRATE)**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name

WORMALD NZ LTD

Address 8 Henderson Place
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Auckland 0640

Telephone Number +64 9 6350755
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Synonym(s) ANSULITE AFC-5A (3% Mil. Spec. AFFF CONCENTRATE)

Use(s) FIRE EXTINGUISHING AGENT • FIRE FIGHTING **SDS Date** 20 November 2009

2. HAZARDS IDENTIFICATION

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

HAZARD CLASSIFICATION

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

HAZARD STATEMENTS

H371 May cause damage to organs

PRECAUTIONARY STATEMENTS

P103 Read label before use.
P104 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.
P309 + P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Content
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	17%
WATER	7732-18-5	65-70%
SEVERAL OTHER HAZARDOUS INGREDIENTS WITH CLASSIFICATIONS EQUAL TO OR LESS THAN DIETHYLENE GLYCOL MONOBUTYL ETHER	Not Available	10-20%

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 Non flammable.

Explosion 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.

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

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

Controls	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	OPAQUE PURPLE GELLED LIQUID
Solubility (water)	SOLUBLE
Odour	MILD SWEET ODOUR
Specific Gravity	NOT AVAILABLE
pH	7.5 to 8.5 **%**
Volatiles	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE
Flammability	NON FLAMMABLE
Vapour Density	NOT AVAILABLE
Flash Point	NOT RELEVANT
Boiling Point	> 99°C
Upper Explosion Limit	NOT RELEVANT
Melting Point	NOT AVAILABLE
Lower Explosion Limit	NOT RELEVANT
Evaporation Rate	0.002 (Butyl Acetate = 1)
Autoignition Temperature	NOT AVAILABLE
Density	1.025 - 1.035
Viscosity	2300 - 3500 cps

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	May evolve toxic gases (hydrocarbons, carbon oxides) when heated to decomposition.
Polymerization	Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Low toxicity - Irritant**.** This product has the potential to cause adverse acute and chronic health effects with over exposure, however given product dilution 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 irritant**.** 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	Low irritant**.** Prolonged or repeated contact may result in mild irritation, rash and dermatitis.
Ingestion	Low to moderate 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)

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 marcrochinus); 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	**DG Class**	None Allocated	**Subsidiary Risk(s)**	None Allocated
Pkg Group	None Allocated	**Hazchem Code**	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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End of Report