

SAFETY DATA SHEET

According to
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

Section 1. Identification of the material and the supplier

Product: **Fomtec AFFF 1% F**
Product Use: Appliance protection
Restriction of Use: Refer to Section 15

New Zealand Supplier: **PSL Fire & Safety**
Address: 10 Akatea Rd,
Glendene
Auckland 0602

Telephone: +64 9 818 8048
Fax: +64 9 818 4484
Email: sales@pslfireandsafety.co.nz

Emergency No: 0800 764 766 (National Poison Centre)

Date of SDS: 5 June 2018 – Rev 2

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval No: Fire Fighting Chemicals – HSR002573

Pictograms



Irritant Chronic Corrosive

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1E (oral)	H303	May be harmful if swallowed.	Acute Tox. 5
6.3B	H316	Causes mild skin irritation.	Skin Irrit. 3
6.9B	H373	May cause damage to organs through prolonged or repeated exposure.	STOT RE 2
8.3A	H318	Causes serious eye damage.	Eye Corr. 1

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P260	Do not breathe fumes or vapours.

P280	Wear personal protective equipment as detailed in Section 8.
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Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.

Storage Code	Storage Statement
None allocated	

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Diethylene glycol monobutyl ether	23-27	112-34-5
Sodium alkyl sulfate	2-6	90583-25-8
Monopropylene glycol	10-15	57-55-6
Alkyl polyglycoside	1-4	68515-73-1
Polyethylene glycol 400	2-5	25322-68-3
Non hazardous	To bal	

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention.
If on Skin	Remove contaminated clothing and wash before reuse. Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.
If Swallowed	Wash out mouth thoroughly with water. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Seek medical attention if needed.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion:	May be harmful if swallowed
Inhalation:	Not applicable
Skin:	Causes mild skin irritation
Eye:	Causes severe eye damage
Chronic:	May cause damage to organs through prolonged or repeated exposure.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from combustion products	None known.
Suitable Extinguishing media	This product is not flammable.
Precautions for firefighters and special protective clothing	Follow the general fire precautions indicated by the workplace.
HAZCHEM CODE	None Allocated

Section 6. Accidental Release Measures

Wear protective gear as detailed in Section 8. Avoid contact with eyes and skin. Do not breathe fumes.

Avoid discharge of larger quantities to drains.

Absorb with sand or other inert absorbent. Flush area clean with lots of water. Be aware of potential for surfaces to become slippery.

Dispose of waste according to the applicable local and national regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Keep out of reach of children.
- Do not breathe fumes or vapours.
- Wash hands thoroughly after handling.
- Avoid contact with eyes and skin.
- Wash contaminated areas with water and soap after finished work.
- Wear personal protective equipment as detailed in Section 8.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep container tightly closed.
- Store at moderate temperatures in dry, well ventilated areas.
- Protect from direct sunlight.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m³	ppm	mg/m³
Propane-1,2-diol [57-55-6]	150	474		
Vapour and particulates		10		
Particulates only				

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2017 9TH EDITION.

DNEL/PNEC from substances:**Sodium Alkyl Sulfate:**

Group	Exposure Route	Exposure Frequency	Type of effect	Value
DNEL - Consumer	Dermal	Long term (repeated)	Systemic effect	2440mg/kg bw 7 days
DNEL - Consumer	Inhalation	Long term (repeated)	Systemic effect	85 mg/m ³
DNEL - Consumer	Oral	Long term (repeated)	Systemic effect	24mg/kg bw/day
DNEL - Consumer	Dermal	Long term (repeated)	Systemic effect	2440mg/kg bw 7 days
DNEL -Worker	Dermal	Long term (repeated)	Systemic effect	4060mg/kg bw/day
DNEL -Worker	Inhalation	Long term (repeated)	Systemic effect	285 mg/m ³
PNEC	Oral	Long term (repeated)	Systemic effect	24mg/kg bw/day
PNEC	Water	Critical component: Fresh water		0.112mg/l
PNEC	Water	Critical component: Marine water		0.0112mg/l
PNEC	Sediment	Critical component: Fresh water		1.25mg/l
PNEC	Sediment	Critical component: Marine water		0.125mg/l
PNEC	Sewage Treatment plant			1.35mg/l
PNEC	Soil			0.185mg/l

Monopropylene Glycol:

Group	Exposure Route	Exposure Frequency	Type of effect	Value
DNEL -Worker	Inhalation	Long term (repeated)	Systemic effect	168mg/m ³
DNEL -Worker	Inhalation	Long term (repeated)	Local effect	10 mg/m ³
DNEL - Consumer	Inhalation	Long term (repeated)	Systemic effect	50 mg/m ³
PNEC	Water	Remarks: Fresh Water		260 mg/l
PNEC	Water	Remarks: Marine water		26 mg/l
PNEC	Water	Remarks: Intermittent releases water		183 mg/l
PNEC	Soil			50 mg/kg soil dw

Alkyl Polyglysocide:

Group	Exposure Route	Exposure Frequency	Type of effect	Value
DNEL - Consumer	Oral	Long term (repeated)	Systemic effect	35.7mg/kg bw/day
DNEL - Consumer	Inhalation	Long term (repeated)	Systemic effect	124 mg/m ³
DNEL - Consumer	Dermal	Long term (repeated)	Systemic effect	357000 mg/kg bw/day
DNEL -Worker	Inhalation	Long term (repeated)	Systemic effect	420 mg/m ³
DNEL -Worker	Dermal	Long term (repeated)	Systemic effect	595000mg/kg bw/day

Polyethylene Glycol 400:

Group	Exposure Route	Exposure Frequency	Type of effect	Value
DNEL - Worker	Dermal	Long term (repeated)	Systemic effect	167.6 mg/kg bw/day
DNEL - Consumer	Oral	Long term (repeated)	Systemic effect	2.2kg/kg bw/day
DNEL - Consumer	Dermal	Long term (repeated)	Systemic effect	1.1mg/kg bw/day
DNEL - Consumer	Inhalation	Long term (repeated)	Systemic effect	1.27 mg/m ³
DNEL - Worker	Dermal	Long term (repeated)	Systemic effect	4.47 mg/kg bw/day
DNEL - Worker	Inhalation	Long term (repeated)	Systemic effect	5.1 mg/m ³
PNEC	Soil			52.26 mg/kg dw
PNEC	Water	Critical component: Periodic Release		1.88 mg/l
PNEC	Water	Critical component: Marine water		0.0188 mg/l
PNEC	Water	Critical component: Fresh water		0.188 mg/l
PNEC	Sediment	Critical component: Marine water		188 mg/kg dw
PNEC	Sediment	Critical component: Fresh water		188 mg/kg dw
PNEC	Sewage Treatment plant			72.92 mg/l
PNEC	Soil			0.185mg/l
DMEL-Consumer	Oral	Long term (repeated)	Systemic effect	335 mg/kg bw/day
DMEL-Consumer	Dermal	Long term (repeated)	Systemic effect	82.7 mg/kg bw/day
DMEL-Consumer	Inhalation	Long term (repeated)	Systemic effect	95 mg/m ³
DMEL- Worker	Inhalation	Long term (repeated)	Systemic effect	191 mg/m ³

Engineering Controls

Ensure adequate ventilation.

Personal Protection Equipment

Eyes	Use approved safety goggles or face shield. Avoid wearing contact lenses.
Hands	Protective gloves must be used if there is a risk of direct contact or splash. Rubber or plastic is recommended.
Skin	Use protective clothing which covers arms and legs.
Respiratory	Under normal conditions of use a respirator should not be required.

Section 9	Physical and Chemical Properties
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Appearance	Liquid
Colour	Clear, yellowish
Odour	Slight odour, organic solvents
Odour Threshold	Not available
pH	6.5 – 8.5
Boiling Point	Not available

Melting Point	Not available
Freezing Point	~-14°C
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	~1.035g/ml
Solubility	Completely soluble in water.
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	≤ 20 mPas (Method of testing: Brookfield DV)
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	None.
Conditions to Avoid	Earth metals such as sodium, potassium and barium.
Incompatible Materials	Alkali earth metals.
Hazardous Decomposition Products	None known.

Section 11 Toxicological Information

Acute Effects:

Swallowed	May be harmful if swallowed.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes serious eye damage
Skin	Causes mild skin irritation.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	May cause damage to organs through prolonged or repeated exposure.

Acute Toxicity -

Chemical Name	LD50 (Oral)	LD50 (Dermal)	LC50 (inhalation)
Product			

Sodium Alkyl Sulfate	>2000 mg/kg	>2000 mg/kg (rat)	-
Monopropylene Glycol	~22000mg/kg(Rat)	>2000 mg/kg (rabbit)	-
Alkyl polyglycoside	>2000mg/kg(Rat)	>2000 mg/kg (rabbit)	-
Polyethylene glycol 400	28000mg/kg (Rat)	>20000mg/kg (rabbit)	-

Section 12. Ecotoxicological Information

This product is not hazardous to the environment.

Product:

	Value	Method of testing	Species	Duration
Acute aquatic, fish	~300mg/l		Rainbow Trout	96h
Acute aquatic, Daphnia	~1000mg/l		Daphnia Magna	24h
Persistence & Degradability	The product is expected to be biodegradable.			
Biodegradability	~95%	Test period: 28 days		
Bioaccumulative Potential	Not expected			
Mobility	This product contains substances, which are water soluble and may spread in water systems.			

Substances:

Sodium Alkyl Sulfate:

	Value	Method of testing	Species	Duration
Acute aquatic, fish	110mg/l	DIN 38412 T15	Leuciscus Idus	48h
Acute aquatic, algae	>100mg/l		Pseudokirchn Subcapitata	48h
Acute aquatic, Daphnia	~240mg/l	DIN 38412 T11	Daphnia Magna	48h
Persistence & Degradability	Product is easily biodegradable.			
Biodegradability	~60%	Test period: 10days		
Chemical Oxygen Demand	698mg/l	DIN 38408 H41		
Biological Oxygen Demand	494mg/l	EN 1899-1		5days

Monopropylene glycol:

	Value	Method of testing	Species	Duration
Acute aquatic, fish	>40613mg/l		Not specified	96h
Acute aquatic, algae	19000mg/l		Not specified	
Acute aquatic, Daphnia	>18340mg/l		Daphnia Magna	48h

Biodegradability	>80%	Test period: 28days Method OECD 301F
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Alkyl Polyglycoside:

Alkyl Polyglycoside

	Value	Method of testing	Species	Duration
Acute aquatic, fish	~20mg/l	OCDE 203	Cyprinodon Variegatus	96hrs
Acute aquatic, algae	~21mg/l	ISO 10253	Skeleonerna Costatum	72hrs
Acute aquatic, Daphnia	~150mg/l	ISO 14669	Acartia Tonsa	48hrs
Persistence & Degradability	Product is easily biodegradable.			
Biodegradability	~100%	Test period: 28days Method OEDE 301E		
Bioaccumulation	Bioaccumulation is not expected			

Polyethylene Glycol 400

Polycarbonate Crystal 100

	Value	Method of testing	Species	Duration
Acute aquatic, fish	>5000mg/l		Carassius Carassius	
Acute aquatic, algae	399mg/l	ISO 10253	Pseudokirchnerella Subcapitata	
Acute aquatic, Daphnia	~357mg/l		Daphnia Magna	
Persistence & Degradability	Product is easily biodegradable.			
Biodegradability	~75%	Test period: 28days		
Bioaccumulation	Bioaccumulation is not expected			
Chemical Oxygen Demand	1695mg/g			
Biological Oxygen Demand	1.45mg/g	EN 1899-1		30days
Bioconcentration Factor	3.2			

Section 13. Disposal Considerations

Disposal Method: Triple rinse and dispose of according to Local regulations.

Precautions or methods to avoid: None known.

Section 14 Transport Information

This product is NOT classified as a Dangerous Good for transport in NZ ; NZS 5433:2012

Section 15 Regulatory Information

New Zealand:

This substance is classified as hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L (8.3A)
Emergency Response Plan	10 000L (8.3A)
Secondary Containment	10 000L (8.3A)
Restriction of Use	Only use for the intended purpose.

Section 16	Other Information
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Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact PSL Fire & Safety, if further information is required.

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