Safety Data Sheet

FOMTEC AFFF 1% Ultra LT

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product name: Fomtec AFFF 1% Ultra LT

Article no: 10-1026-XX

Importer / Supplier: Fire Protection Technologies
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2. HAZARD IDENTIFICATION

2.1 Classification of substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS] Eye Irrit. 2; H319

2.2 Label elements

Hazard Pictograms (CLP)

Composition on the label	2-(2-Butoxyethoxy) ethanol 25-29%, Sulfuric acid, mono-C8-10-alkyl esters, sodium salts 1 -2,9%, 1-Propanaminiumm, N-(3-aminopropyl)-2-hydroxy-N,Ndimethyl-3-sulfo-, N-(C8-18(even numbered) acyl) derivs., hydroxides, inner salts 0,1 -0,9%
Signal word	Warning
Hazard statements	H319 Causes serious eye irritation
Precautionary statements	P264 Wash thoroughly after handling. P280 Wear protective gloves/ protective clothing / eye protection / face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice / attention.

2.3 Other hazards

PBT / vPvB	This product does not meet the criteria for PBT (persistent / bioaccumulative / toxic) or vPvB (very persistent / very bioaccumulative).

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Substance	Identification	Classification	Contents
Ethanediol	CAS No.: 107-21-1 EC No.: 203-473-3 Index No.: 603-027-00-1	Acute tox. 4; H302	12 – 17,5 %
Alkyl polyglycoside	CAS No.: 68515-73-1 EC No.: 500-220-1 REACH Reg. No.: 01-2119488530-36-XXXX	Eye Dam. 1; H318	1 – 2,9%
2-(2-Butoxyethoxy) ethanol	CAS No.: 112-34-5 EC No.: 203-961-6 Index No.: 603-096-00-8 REACH Reg. No.: 01-2119475104-44	Eye Irrit. 2; H319	25 - 29 %
Diethylene glycol monomethyl ether	CAS No.: 111-77-3 EC No.: 203-906-6 Index No.: 603-107-00-6 REACH Reg. No.: 01-2119475100-52	Repr. 2;H361d*	0,1 – 0,5%

Methanol	CAS No.: 67-56-1 EC No.: 200-659-6 Index No.: 603-001-00-X REACH Reg. No.: 01-2119392409-28	Flam. Liq. 2; H225 Acute tox. 3; H331 Acute tox. 3; H311 Acute tox. 3; H301 STOT SE1; H370	0,1 – 0,5 %
Sulfuric acid, mono-C8-10-alkyl esters, sodium salts	CAS No.: 85338-42-7 EC No.: 286-718-7	Skin Irrit. 2; H315 Eye Dam 1; H318	1 – 2,9 %
1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,Ndimethyl-3-sulfo-, N-(C8-18(even numbered) acyl) derivs., hydroxides, inner salts	EC No.: 939-455-3 REACH Reg. No.: 01-2119970722-34	Eye Dam. 1; H318 Aquatic Chronic 3; H412	0,1 – 0,9 %

4. FIRST AID MEASURES

4.1 Description of first aid measures

General	Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.
Inhalation	Fresh air and rest. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing and launder thoroughly before re-use. Wash skin thoroughly with soap and water for several minutes. Get medical attention if any discomfort continues.
Eye contact	Immediately rinse with plenty of lukewarm water for at least 5 minutes. Make sure to remove any contact lenses from the eyes before rinsing. Contact physician if discomfort continues.
Ingestion	Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions.
Recommended personal protective equipment for first aid responders	No recommendation given.

4.2 Most important symptoms and effects, both acute and delayed

General symptoms and effects	After extensive contact, may cause irritation to skin. Ingestion of large quantities may cause nausea, vomiting, dizziness, confusion, loss of consciousness. Causes eye irritation

4.3 Indication of any immediate medical attention and special treatment

Medical treatment	Treat Symptomatically
Medical monitoring for delayed effects	No recommendation given
Separate first aid equipment	Eye wash facility in working area

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	This product is not flammable.

5.2 Special hazards arising from the substance or mixture

Fire and explosion hazards	None
Hazardous combustion products	In case of fire, carbon monoxide and carbon dioxide may be released

5.3 Advice for firefighters

Firefighting procedures	Follow the general fire precautions indicated by the workplace

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

General measures	Ensure good ventilation
Personal protection measures	Avoid contact with skin and eyes. Do not breathe vapour. For personal protection, see section 8.

6.2 Environmental precautions

Environmental precautionary measures	Prevent discharge of larger quantity to drain. Avoid discharge to the aquatic environment.

6.3 Methods and material for containment and cleaning up

Clean up	Absorb in vermiculite, dry sand or earth and place into containers. Collect spills to suitable waste containers. Further handling of waste - see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling	Avoid contact with skin and eyes. Avoid inhalation of vapours. Wash hands before breaks and before smoking, eating or drinking. Wash hands and contaminated areas with water and soap after finished work. Container must be kept tightly closed.

7.2 Conditions for safe storage, including any incompatibilities

Storage	Store at moderate temperatures in dry, well ventilated area. Keep container tightly closed. Protect against direct sunlight.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

Substance	Identification	Value	TWA Year
Ethanediol	CAS No.: 107-21-1		
Alkyl polyglycoside	CAS No.: 68515-73-1		

DNEL / PNEC

Substance	Alkyl polyglycoside
DNEL	Group: Consumer Route of exposure: Long Term (repeated) – Inhalation – Systemic effect Value: 124 mg/m3 Group: Worker Route of exposure: Long term (repeated) – Inhalation – Systemic effect Value: 420 mg/m3 Group: Worker Route of exposure: Long term (repeated) – Dermal – Systemic effect Value: 595000 mg/kg bw/day Group: Consumer Route of exposure: Long term (repeated) – Oral – Systemic effect Value: 35,7 mg/kg bw/day Group: Consumer Route of exposure: Long term (repeated) – Dermal – Systemic effect Value: 357000 mg/kg bw/day
Substance	2-(2-Butoxyethoxy) ethanol
PNEC	Reference: Predicted No Effect Concentration 1 mg/L aquatic organisms 71 mg/L microorganisms 0,2 mg/kg terrestrial environment 50 mg/kg predators
Substance	Diethylene glycol monomethyl ether
PNEC	Comments: Predicted No Effect Concentration 12 mg/L aquatic organisms 100 mg/L microorganisms 1,4 mg/kg terrestrial environment 90 mg/kg predators

8.2 Exposure controls

Safety Signs

Precautionary measures to prevent exposure	An eye wash bottle must be available at the work site

Eye / face protection	Wear approved chemical safety goggles where eye exposure is reasonably probably
Skin / hand protection, long term contact	In cases of prolonged, repeated or extensive exposure, wear protective gloves
Suitable gloves type	Rubber or plastic
Skin protection	Use protective clothes in order to avoid skin contact
Respiratory protection	Ensure good ventilation. In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Clear, yellowish liquid
Colour	Yellowish
Odour	Slight odour.
pH	Status: In delivery state Value: 7,3 – 8,3
Freezing point	Value: -38°C
Explosion limit	Product is not explosive
Relative density	Value: ~ 1,05 g/ml
Solubility	Soluble in water
Viscosity	Value: ≤ 20 mPas Method: Brookfield DV

10. STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity	Stable product under normal conditions of handling and storage

10.2 Chemical stability

Stability	Stable product under normal conditions of handling and storage

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions	Stable product under normal conditions of handling and storage

10.4 Conditions to avoid

Conditions to avoid	Not known under normal conditions of handling and storage

10.5 Incompatible materials

Materials to avoid	Alkali earth metals.

10.6 Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Substance	Alkyl polyglycoside
Acute toxicity	Type of toxicity: Acute Effect Tested: LD50 Route of exposure: Oral Value: > 2000 mg/kg Animal test species: Rat Type of toxicity: Acute Effect Tested: LD50 Route of exposure: Dermal Value: > 2000 mg/kg Animal test species: Rabbit
Substance	2-(2-Butoxyethoxy) ethanol
Acute toxicity	Type of toxicity: Acute Effect Tested: LD50 Route of exposure: Oral Value: = 5660 mg/kg bw Animal test species: Rat Type of toxicity: Acute Effect Tested: LD50 Route of exposure: Dermal Value: = 2700 mg/kg bw Animal test species: Rabbit
Substance	Diethylene glycol monomethyl ether
Acute toxicity	Type of toxicity: Acute Effect Tested: LC50 Route of exposure: Oral Value: = 4000 mg/kg bw Animal test species: Rat Type of toxicity: Acute Effect Tested: LD50 Route of exposure: Dermal

	Value: = 6720 mg/kg bw Animal test species: Rabbit
Substance	Sulfuric acid, mono-C8-10-alkyl esters, sodium salts
Acute toxicity	Type of toxicity: Acute Effect Tested: LC50 Route of exposure: Oral Value: >2000 mg/kg bw Animal test species: Rat
Substance	1-Propanaminium, N-(3- aminopropyl)-2-hydroxy-N,Ndimethyl-3-sulfo-, N-(C8-18(even numbered) acyl) derivs., hydroxides, inner salts
Acute toxicity	Type of toxicity: Acute Effect Tested: LD50 Route of exposure: Oral Value: = 2950 mg/kg bw Animal test species: Rat Type of toxicity: Acute Effect Tested: LD50 Route of exposure: Dermal Value: > 2000 mg/kg bw Animal test species: Rat

Other information regarding health hazards

Skin contact	In case of prolonged contact with skin, may cause irritation
Eye contact	Causes serious eye irritation
Ingestion	In case of ingestion of large quantities may cause nausea, vomiting, dizziness, confusion, loss of consciousness

Symptoms of exposure

In case of ingestion	Ingestion of large quantities may cause nausea, vomiting, dizziness, confusion, loss of consciousness
In case of skin contact	After extensive contact, may cause irritation to skin
In case of eye contact	Irritation of eyes and mucous membrane

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Acute aquatic, fish	Value: ~ 250 mg/l Test duration: 96 h Species: Rainbow Trout
Substance	Alkyl polyglycoside
Acute aquatic, fish	Value: ~ 20 mg/l Test duration: 96 hrs Species: Cyprinodon Variegatus Method: OCDE 203
Substance	2-(2-Butoxyethoxy) ethanol
Acute aquatic, fish	Toxicity type: Acute

	Value: = 1300 mg/l Effective dose concentration: LC50 Exposure time: 96 hour(s) Species: Lepomis macrochirus
Substance	Diethylene glycol monomethyl ether
Acute aquatic, fish	Toxicity type: Acute Value: = 1000 mg/l Effective dose concentration: LC50 Exposure time: = 96 h Species: Oncorhynchus mykiss
Substance	Methanol
Acute aquatic, fish	Toxicity type: Acute Value: = 15400 mg/l Effect dose concentration:LC50 Exposure time: = 96 hrs Species: Lepomis macrochirus
Substance	Sulfuric acid, mono-C8-10-alkyl esters, sodium salts
Acute aquatic, fish	Toxicity type: Acute Value: = 110 mg/l Effect dose concentration: LC50 Exposure time: 48 hrs Species: Leuciscus idus Test reference: DIN 38412 T15 Toxicity type: Acute Value: = 240 mg/l Effect dose concentration: EC50 Species: Daphnia magna Test reference: DIN 38412 T11
Substance	Alkyl polyglycoside
Acute aquatic, algae	Value: ~ 21 mg/l Test duration: 72 hrs Species: Skeletonerna Costatum Method: ISO 10253
Substance	Diethylene glycol monomethyl ether
Acute aquatic, algae	Toxicity type: Acute Value: >500 mg/l Effective dose concentration: IC50 Exposure time: = 72 hrs Species: Scenedesmus subspicatus
Substance	Methanol
Acute aquatic, algae	Toxicity type: Acute Value: = 441 mg/l Effect dose concentration: IC50 Exposure time: = 72 hrs
Acute aquatic, Daphnia	Value: ~ 800 mg/l Test duration: 24 hrs Species: Daphnia Magna
Substance	Alkyl polyglycoside
Acute aquatic, Daphnia	Value: ~ 150 mg/l Test duration: 48 hrs

	Species: Acartia Tonsa Method: ISO 14669
Substance	2-(2-Butoxyethoxy) ethanol
Acute aquatic, Daphnia	Toxicity type: Acute Value: > 100 mg/l Effect dose concentration: EC50 Exposure time: 48 hrs Species: D. magna
Substance	Diethylene glycol monomethyl ether
Acute aquatic, Daphnia	Toxicity type: Acute Value: = 1192 mg/l Effect dose concentration: EC50 Exposure time: = 48 hrs Species: D. magna
Substance	Methanol
Acute aquatic, Daphnia	Toxicity type: Acute Value: = 24500 mg/l Effect dose concentration: EC50 Exposure time: = 48 hrs Species: D. magna
Ecotoxicity	The product is not environmentally hazardous to aquatic life
Aquatic, comments	On basis of test data

12.2 Persistence and degradability

Substance	Alkyl polyglycoside
Biodegradability	Value: ~ 100% Method: OCDE 301E Test period: 28 days
Substance	2-(2-Butoxyethoxy) ethanol
Biodegradability	Value: = 89% Method: degradation in 28 days OECD 301C Comments: Readily biodegradable
Substance	Diethylene glycol monomethyl ether
Biodegradability	Value: = 100% Method: degradation in 7 days OECD 302B Comments: Readily biodegradable
Substance	Methanol
Biodegradability	Value: 99% Method: degradation in 28 days OECD 301D Comments: Readily biodegradable
Substance	Sulfuric acid, mono-C8-10-alkyl esters, sodium salts
Biodegradability	Value: > 60% Method: OECD 301D Comments: Readily biodegradable Test period: 10 days
Substance	1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,

	Ndimethyl-3-sulfo-, N-(C8-18(even numbered) acyl) derivs., hydroxides, inner salts
Biodegradability	Value: = 57% Method: OECD 306 Test period:= 28 days
Persistence and degradability, comments	This product is expected to be biodegradable

12.3 Bio accumulative potential

Bio accumulative potential	Bioaccumulation: Is not expected to be bio accumulable.
Substance	2-(2-Butoxyethoxy) ethanol
Bioconcentration factor (BCF)	Value: = 2,9 Comments: No bioaccumulation expected
Substance	Diethylene glycol monomethyl ether
Bioconcentration factor (BCF)	Value: = 0,2 Comments: No bioaccumulation expected
Substance	Methanol
Bioconcentration factor (BCF)	Value: = 1 Comments: No bioaccumulation expected

12.4 Mobility in soil

Mobility	The product contains substances, which are water soluble and may spread in water systems.

12.5 Results of PBT and vPvB assessment

PBT assessment results	Not classified as PBT/vPvB by current EU criteria

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Specify the appropriate methods of disposal	Dispose of waste and residues in accordance with local authority requirements.
EWC waste code	EWC waste code: 160305 organic wastes containing dangerous substances Classified as hazardous waste: Yes
EU Regulations	Directive 2008/98/EC of the European Parliament and of the Council of 19 November2008 on waste and repealing certain Directives

14. TRANSPORT INFORMATION

14.1 UN number

Comments	Not applicable. No information required

4.2 UN proper shipping name

Comments	Not applicable. No information required.

14.3 Transport hazard class(es)

14.4 Packing group

Comments	Not applicable. No information required.

14.5 Environmental hazards

Comments	Not applicable. No information required.

14.6 Special precautions for user

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Additional Information

Additional information	The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EEC-directive	Commission Directive 2006/15/EC of7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC. Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods. Commission Directive 201245/EU adapting for the second time the Annexes to Directive 2008/68/EC of the European Parliament and of the Council on the inland transport of dangerous goods to scientific and technical progress.
Legislation and regulation	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No 1907/2006. Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation,

Authorisation and Restriction of Chemicals (REACH)

15.2 Chemical safety assessment

Chemical safety assessment performed	Yes

16. OTHER INFORMTION

List of relevant H-phrases (Section 2 and 3).	H225 Highly flammable liquid and vapour H301 Toxic if swallowed H302 Harmful if swallowed H311 Toxic in contact with skin H315 Causes skin irritation H318 Causes serious eye damage H319 Causes serious eye irritation H331 Toxic if inhaled H370 Causes damage to organs H412 Harmful to aquatic life with long lasting effects
Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Eye Irrit. 2; H319; Calculation method