

Safety Data Sheet

FOMTEC ARC 3x3

Revision Date 21/10/2019

Status ISSUED BY: Fire Protection Technologies

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

1.1 Product Identifier

Product name: Fomtec ARC 3x3

Product no: 12-3304-XX / UFI Code

Importer / Supplier: Fire Protection Technologies
Address: Unit 1/251 Ferntree Gully Road
Mt Waverley, Victoria, 3149 Australia.

Telephone Number: 1300 742 296
Emergency Telephone No.: 24 hours 1300 742 296
Emergency Services: Dial 000

SDS Preparer: Fire Protection Technologies

Manufacturer: Dafo Fomtec AB
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2. HAZARD IDENTIFICATION

2.1 Classification of substance or mixture

Eye Irrit. 2; H319, Causes serious eye irritation

2.2 Label elements

Hazard Pictogram(s)



Signal word

Warning



Hazard statements	Causes serious eye irritation
Safety statement(s)	Prevention: P280, Wear eye protection. P264, Wash hands/exposed areas thoroughly after handling
	Response: P337+P313, If eye irritation persists: Get medical advice/attention P305+P351+P338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards

Additional Labelling / VOC	Not applicable
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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Product/Ingredient name	Identifier Number	% w/w	CLP	Note
ethanediol	CAS No.: 107-21-1 EC No.: 203-473-3 Index No.: 603-027-00-1	15-25%	Acute Tox. 4, H302	EU
2-(2- butoxyethoxy)ethanol; diethylene glycol monobutyl ether	CAS No.: 112-34-5 EC No.: 203-961-6 Index No.: 603-096-00-8	5-10%	Eye Irrit. 2, H319	Annex XVII, EU
Sodium decyl sulphate	CAS No.: 142-87-0 EC No.: 205-568-5	3-5%	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412	
D-Glucopyranose, oligomers, decyl octyl glycosides	CAS No.: 68515-73-1 EC No.: 500-220-1	1-3%	Eye Dam. 1, H318	
1-Propanaminium, N-(3-aminopropyl)-2- hydroxy- N,Ndimethyl- 3-sulfo, N-(C8- 18(even numbered) acyl) derivs., hydroxides	EC No.: 939-455-3 REACH No.: 01- 2119970722-34-0000	1-3%	Eye Dam. 1, H318 Aquatic Chronic 3, H412	

4. FIRST AID MEASURES

4.1 Description of first aid measures

General information	In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.
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Inhalation	Bring the person into fresh air and stay with him/her.
Skin contact	Immediately remove contaminated clothing and shoes. Ensure that skin, which has been exposed to the material, is washed thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.
Eye contact	Remove contact lenses. Flush eyes immediately with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.
Ingestion	Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of, or choking on, vomited material.

4.2 Most important symptoms and effects, both acute and delayed

Irritation effects	This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.
Neurotoxic effects	This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness etc. Repeated exposure to solvents can result in the breaking down of the skins natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

4.3 Indication of any immediate medical attention and special treatment

If eye irritation persists	Get medical advice/attention
Information to medics	Bring this safety data sheet

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

This product is not flammable

5.2 Special hazards arising from the substance or mixture

None

5.3 Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service in order to obtain further advice.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

No specific requirements

6.2 Environmental precautions

No specific requirements

6.3 Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials and dispose of it in accordance with the regulations on dangerous waste.

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal according to local regulations.

To the extent possible, cleaning is performed with normal cleaning agents. Avoid use of solvents

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Smoking, storage of tobacco, consumption and storage of food or liquids is not allowed in the work area.

7.2 Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original container.

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Storage temperature

Dry, cool and well ventilated (<55°C)

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

ethanediol	<p>Long term exposure limit (8 hours) (ppm): 20(vapour) Long term exposure limit (8 hours) (mg/m³): 10(particulate)/52(vapour) Short term exposure limit (15 minutes) (ppm): 40 (vapour) Short term exposure limit (15 minutes) (mg/m³): 104 (vapour) Annotations: Sk = Can be absorbed through the skin and lead to systemic toxicity</p>
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	<p>Long term exposure limit (8 hours) (ppm): 10 Long term exposure limit (8 hours) (mg/m³): 67,5 Short term exposure limit (15 minutes) (ppm): 15 Short term exposure limit (15 minutes) (mg/m³): 101,2</p>
DNEL	
ethanediol	<p>DNEL: 35 mg/m³ Route of exposure: Inhalation</p>

	<p>Duration: Long term – Local effects – Workers</p> <p>DNEL: 7 mg/m³ Route of exposure: Inhalation Duration: Long term – Local effects – General population</p> <p>DNEL: 106 mg/kg Route of exposure: Dermal Duration: Long term – Systemic effects – Workers</p> <p>DNEL: 53 mg/kg Route of exposure: Dermal Duration: Long term – Systemic effects – General population</p>
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	<p>DNEL: 68 mg/m³ Route of exposure: Inhalation Duration: Long term – Systemic effects – Workers</p> <p>DNEL: 101,2 mg/m³ Route of exposure: Inhalation Duration: Short term – Local effects – Workers</p> <p>DNEL: 83 mg/kg Route of exposure: Dermal Duration: Long term – Systemic effects – Workers</p> <p>DNEL: 10 ppm Route of exposure: Inhalation Duration: Long term – Systemic effects – Workers</p> <p>DNEL: 60.7 mg/m³ Route of exposure: Inhalation Duration: Short term – Local effects – General population</p> <p>DNEL: 50 mg/kg Route of exposure: Dermal Duration: Long term – Systemic effects – General population</p>
Sodium decyl sulphate	<p>DNEL: 5 mg/kg Route of exposure: Oral Duration: Long term – Systemic effects – General population</p> <p>DNEL: 4060 mg/kg Route of exposure: Dermal Duration: Short term – Systemic effects – Workers</p> <p>DNEL: 285 mg/m³ Route of exposure: Inhalation Duration: Short term – Systemic effects – Workers</p> <p>DNEL: 2440 mg/kg Route of exposure: Dermal Duration: Long term – Systemic effects – General population</p> <p>DNEL: 85 mg/m³ Route of exposure: Inhalation Duration: Long term – Systemic effects – General population</p> <p>DNEL: 24 mg/kg Route of exposure: Oral</p>

D-Glucopyranose, oligomers, decyl octyl glycosides

Duration: Long term – Systemic effects – General population

DNEL: 595000 mg/kg

Route of exposure: Dermal

Duration: Long term – Systemic effects – Workers

DNEL: 420 mg/m³

Route of exposure: Inhalation

Duration: Long term – Systemic effects – Workers

DNEL: 357000 mg/kg

Route of exposure: Dermal

Duration: Long term – Systemic effects – General population

DNEL: 124 mg/m³

Route of exposure: Inhalation

Duration: Long term – Systemic effects – General population

DNEL: 35.7 mg/kg

Route of exposure: Oral

Duration: Long term – Systemic effects – General population

1-Propanaminium, N-(3- aminopropyl)-2-hydroxy-N,Ndimethyl- 3-sulfo, N-(C8-18(even numbered) acyl) derivs., hydroxides

DNEL: 0,33 mg/kg

Route of exposure: Dermal

Duration: Long term – Systemic effects – Workers

DNEL: 1,18 mg/m³

Route of exposure: Inhalation

Duration: Long term – Systemic effects – Workers

DNEL: 0.17 mg/kg

Route of exposure: Dermal

Duration: Long term – Systemic effects – General population

DNEL: 0.29 mg/m³

Route of exposure: Inhalation

Duration: Long term – Systemic effects – General population

DNEL: 0.17 mg/kg

Route of exposure: Oral

Duration: Long term – Systemic effects – General population

PNEC

ethanediol

PNEC: 1.53 mg/kg

Route of exposure: Soil

Duration: No data available

PNEC: 10 mg/L

Route of exposure: Freshwater

Duration: No data available

PNEC: 1 mg/L

Route of exposure: Marine water

Duration: No data available

PNEC: 3.7 mg/kg

Route of exposure: Marine water sediment

Duration: No data available

PNEC: 37 mg/kg

	<p>Route of exposure: Freshwater sediment Duration: No data available</p>
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	<p>PNEC: 1.1 mg/L Route of exposure: Freshwater Duration: No data available</p> <p>PNEC: 0,11 mg/L Route of exposure: Marine water Duration: No data available</p> <p>PNEC: 0,44 mg/L Route of exposure: Marine water sediment Duration: No data available</p> <p>PNEC: 4.4 mg/kg Route of exposure: Freshwater sediment Duration: No data available</p> <p>PNEC: 0.32 mg/kg Route of exposure: Soil Duration: No data available</p>
Sodium decyl sulphate	<p>PNEC: 0,095 mg/l Route of exposure: Freshwater Duration: No data available</p> <p>PNEC: 0,0095 mg/l Route of exposure: Marine water Duration: No data available</p> <p>PNEC: 1,5 mg/kg Route of exposure: Freshwater sediment Duration: No data available</p> <p>PNEC: 0,15 mg/kg Route of exposure: Marine water sediment Duration: No data available</p> <p>PNEC: 0,2445 mg/kg Route of exposure: Soil Duration: No data available</p> <p>PNEC: 0,086 mg/l Route of exposure: Intermittent release Duration: No data available</p>
D-Glucopyranose, oligomers, decyl octyl glycosides	<p>PNEC: 0,1 mg/l Route of exposure: Freshwater Duration: No data available</p> <p>PNEC: 0,01 mg/l Route of exposure: Marine water Duration: No data available</p> <p>PNEC: 0.487 mg/kg Route of exposure: Freshwater sediment Duration: No data available</p> <p>PNEC: 0.048 mg/kg</p>

	<p>Route of exposure: Marine water sediment Duration: No data available</p>
1-Propanaminium, N-(3- aminopropyl)-2-hydroxy-N,Ndimethyl- 3-sulfo, N-(C8-18(even numbered) acyl) derivs., hydroxides	<p>PNEC: 0,021 mg/l Route of exposure: Freshwater Duration: Continuous</p>
	<p>PNEC: 0,00152 mg/L Route of exposure: Marine water Duration: No data available</p>
	<p>PNEC: 0,697 mg/kg Route of exposure: Marine water sediment Duration: No data available</p>
	<p>PNEC: 0,0414 mg/kg Route of exposure: Soil Duration: No data available</p>
	<p>PNEC: 6.97 mg/kg Route of exposure: Freshwater sediment Duration: No data available</p>
	<p>PNEC: 100 mg/l Route of exposure: Sewage treatment plant Duration: No data available</p>

8.2 Exposure controls

General recommendations	Smoking, drinking and consumption of food is not allowed in the work area
Exposure scenarios	In the event exposure scenarios are appended to the safety data sheet, the operational conditions and risk management measures in these shall be complied with.
Exposure limits	Professional users are subjected to the legally set maximum concentrations for occupational exposure.
Appropriate technical measures	Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above). Installation of an exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and showers are clearly marked.
Hygiene measures	In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.
Personal Protective Equipment	Use only CE market protective equipment
Skin protection	Dedicated work clothing should be worn
Hand protection	Vinyl / PVC Gloves. Thickness 0.6mm
Eye protection	Wear Safety Glasses with side shields. Standards EN166

9. PHYSICAL AND CHEMICAL PROPERTIES



9.1 Information on basic physical and chemical properties

Form	Liquid
Colour	Pale yellow
Odour	Characteristic
pH	6.5-8.5
Density (g/cm ³)	1.04
Viscosity	~2300 mPa.s
Melting point	-15°C
Solubility in Water	Soluble

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

The product is stable under the conditions, noted in section "Handling and Storage"

10.3 Possibility of hazardous reactions

None

10.4 Conditions to avoid

None

10.5 Incompatible materials

Strong acids, strong bases, strong oxidizing agents and strong reducing agents

10.6 Hazardous decomposition products

This product is not degraded when used as specified in section 1

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Product/Ingredient Name

ethanediol

Type of toxicity: Acute



	Test: LD50 Route of exposure: Oral Result: 5840.00 mg/kg Species: Rat
	Type of toxicity: Acute Test: LD50 Route of exposure: Dermal Result: 9530.00 mg/kg Species: Rabbit
	Type of toxicity: Acute Test: LD50 Route of exposure: Oral Result: 7712.00 mg/kg Species: Rat
	Type of toxicity: Acute Test: LD50 Route of exposure: Dermal Result: 3500.00 mg/kg Species: Mouse
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	Type of toxicity: Acute Test: LD50 Route of exposure: Oral Result: 2410.00 mg/kg Species: Mouse
	Type of toxicity: Acute Test: LC50 Route of exposure: Inhalation Result: 29.00 ppm Species: Rat
	Type of toxicity: Acute Test: LD50 Route of exposure: Dermal Result: 2764.00 mg/kg Species: Rabbit
	Type of toxicity: Acute Test: LD50 Route of exposure: Oral Result: 5660.00 mg/kg Species: Rat
Sodium decyl sulphate	Type of toxicity: Acute Test: LD50 Route of exposure: Oral Result: 1200.00 mg/kg Species: Rat
	Type of toxicity: Acute Test: LD50 Route of exposure: Dermal Result: 2000.00 mg/kg Species: Rat
D-Glucopyranose, oligomers, decyl octyl glycosides	Type of toxicity: Acute

1-Propanaminium, N-(3-aminopropyl)-2- hydroxy-N,Ndimethyl-3-sulfo-, N-(C8-18(even numbered) acyl) derivs., hydroxides, inner salts

Test: LD50
Route of exposure: Dermal
Result: 2000.00 mg/kg
Species: Rat

Type of toxicity: Acute
Test: LD50
Route of exposure: Oral
Result: 2000.00 mg/kg
Species: Rat

Type of toxicity: Acute
Test: LD50
Route of exposure: Oral
Result: 2950.00 mg/kg
Species: Rat

Type of toxicity: Acute
Test: LD50
Route of exposure: Dermal
Result: 2000.00 mg/kg
Species: Rat

Serious eye damage / irritation
 Long term effects

Causes serious eye irritation

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness etc. Repeated exposure to solvents can result in the breaking down of the skins natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

ethanediol

Test: LC50
Duration: 96 hours
Result: 72860.00 mg/L
Species: Fish

Test: EC50
Duration: 96 hours
Result: 6500.00 mg/L
Species: Algae

Test: NOEC
Duration: No data available
Result: 8590.00 mg/L
Species: Daphnia

2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether

Test: LC50
Duration: 96 hours
Result: 1300.00 mg/L
Species: Fish

Test: EC50
Duration: 48 hours
Result: 100.00 mg/L
Species: Daphnia

Test: EC50
Duration: 96 hours
Result: 100.00 mg/L
Species: Algae

Sodium decyl sulphate

Test: LC50
Duration: 48 hours
Result: 13.00 mg/L
Species: Fish

Test: EC50
Duration: 72 hours
Result: 8.64 mg/L
Species: Algae

D-Glucopyranose, oligomers, decyl octyl glycosides

Test: EC50
Duration: 72 hours
Result: 20.71 mg/L
Species: Algae

Test: LC50
Duration: 96 hours
Result: 21.00 mg/L
Species: Fish

Test: EC50
Duration: 72 hours
Result: 37.00 mg/L
Species: Algae

Test: EC50
Duration: 48 hours
Result: 100.00 mg/L
Species: Daphnia

1-Propanaminium, N-(3-aminopropyl)-2- hydroxy-N,Ndimethyl-3-sulfo-, N-(C8-18(even numbered) acyl) derivs., hydroxides, inner salts

Test: LC50
Duration: 96 hours
Result: 0.23 mg/L
Species: Fish

Test: EC50
Duration: 48 hours
Result: 4.00 mg/L
Species: Daphnia

Test: NOEC
Duration: 72 hours
Result: 0.76 mg/L
Species: Algae

12.2 Persistence and degradability

ethanediol	Result: 90% Biodegradability: Yes
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	Test: OECD 301 C (Modified MITI Test) Result: 80% Biodegradability: Yes
Sodium decyl sulphate	Test: OECD 301 D (Closed Bottle) Result: 80% Biodegradability: Yes
D-Glucopyranose, oligomers, decyl octyl glycosides	Test: OECD 301 E (Modified OECD Screening Test) Result: 100% Biodegradability: Yes
1-Propanaminium, N-(3-aminopropyl)-2- hydroxy-N,Ndimethyl-3-sulfo-, N-(C8-18(even numbered) acyl) derivs., hydroxides, inner salts	Result: 57% Biodegradability: Yes

12.3 Bio accumulative potential

ethanediol	Potential Bioaccumulation: No
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	Potential Bioaccumulation: No
1-Propanaminium, N-(3-aminopropyl)-2- hydroxy-N,Ndimethyl-3-sulfo-, N-(C8-18(even numbered) acyl) derivs., hydroxides, inner salts	Potential Bioaccumulation: No

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product is not covered by the regulations on dangerous waste.

EWC code	16 03 05 – Organic wastes containing dangerous substances
Contaminated packaging	Packaging containing residues of the product must be disposed of similarly to the product.

14. TRANSPORT INFORMATION

14.1 – 14.4

Not dangerous goods according to ADR, IATA and IMDG

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Not applicable

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

Not applicable

15. REGULATORY INFORMATION

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

Restrictions for application

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Sources

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 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 (CLP).
 Regulation (EC) 1907/2006 (REACH).
 Council Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.

15.2 Chemical safety assessment

Chemical safety assessment

Yes

16. OTHER INFORMATION

Full list of H-phrases as mentioned in Section 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
 H371, May cause damage to organs
 H412, Harmful to aquatic life with long lasting effects