



SAFETY DATA SHEET

AFFF 3%S C6

The safety data sheet is in accordance with 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)

SECTION 1: Identification of the substance / mixture and of the company / undertaking

Date issued	12.11.2012
Revision date	11.10.2017

1.1. Product identifier

Product name	AFFF 3%S C6
Article no.	V-AFFF3S

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance / preparation	Appliance protection.
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1.3. Details of the supplier of the safety data sheet

Downstream user

Company name	Viking S.A.
Postal address	Z.I. Haneboesch
Postcode	L-4562
City	Differdange/Nieder Korn
Country	Luxembourg
Telephone number	+352 58 37 37 1
Fax	+352 58 37 36
Website	http://www.viking-emea.com

1.4. Emergency telephone number

Emergency telephone	Telephone number: 111 Description: The NHS (National Health Service), helpline
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SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]

Eye Irrit. 2; H319; Calculation method

2.2. Label elements

Hazard pictograms (CLP)



Composition on the label

Alkyl polyglycoside 0,5 -0,99 %, Sulfuric acid, mono-C8-10-alkyl esters, sodium salts 0,1 -0,9 %, 1-Propanaminium, 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

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

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents
Diethylene glycol monobutyl ether	CAS No.: 112-34-5 EC No.: 203-961-6 Index No.: 603-096-00-8	Eye Irrit. 2;H319	5 – 9,5 %
Alkyl polyglycoside	CAS No.: 68515-73-1 EC No.: 500-220-1 REACH Reg. No.: 01-2119488530-36-XXXX	Eye Dam. 1;H318	0,5 -0,99 %
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	0,1 -0,9 %
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 %

SECTION 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 flush with plenty of lukewarm water for at least 5 minutes. Make sure to remove any contact lenses from the eyes before rinsing. Contact physician immediately. Continue flushing during transport to hospital.
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	Slightly irritating to skin. Causes eye irritation.
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4.3. Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	This product is not flammable.
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5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	None.
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5.3. Advice for firefighters

Fire fighting procedures	Follow the general fire precautions indicated by the workplace.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures	Avoid contact with skin and eyes. Do not breathe vapour. For personal protection, see section 8.
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6.2. Environmental precautions

Environmental precautionary measures	Prevent discharge of larger quantity to drain. Avoid discharge to the aquatic environment.
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6.3. Methods and material for containment and cleaning up

Clean up	Absorb spillage with non-combustible, absorbent material. Collect spills to suitable waste containers. Rinse thoroughly with water. Further handling of waste – see section 13.
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6.4. Reference to other sections

Additional information	See Sections 8 and 13 for information concerning protective equipment and waste treatment methods.
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SECTION 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. Wear protective equipment, see Section 8.
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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.
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7.3. Specific end use(s)

Specific use(s)	See EWC-code under Section 13.
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SECTION 8: Exposure controls / personal protection

8.1. Control parameters

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

DNEL / PNEC

Substance	Alkyl polyglycoside
DNEL	<p>Group: Consumer Route of exposure: Long term (repeated) – Inhalation – Systemic effect Value: 124 mg/m³</p> <p>Group: Worker Route of exposure: Long term (repeated) – Inhalation – Systemic effect Value: 420 mg/m³</p> <p>Group: Worker Route of exposure: Long term (repeated) – Dermal – Systemic effect Value: 595000 mg/kg bw/day</p>

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

8.2. Exposure controls

Safety signs



Eye / face protection

Suitable eye protection Eye protection: Wear approved chemical safety goggles where eye exposure is reasonably probable.

Hand protection

Skin- / hand protection, long term contact Gloves are recommended for prolonged use.
 Suitable gloves type Rubber or plastic.

Respiratory protection

Respiratory protection necessary at In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment.

Hygiene / environmental

Specific hygiene measures Eating, smoking and water fountains prohibited in immediate work area.

SECTION 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: 6,5 – 8,5
Freezing point	Value: -3 °C
Boiling point / boiling range	Comments: No data recorded.
Flash point	Comments: No data recorded.
Evaporation rate	Comments: No data recorded.
Flammability (solid, gas)	Not relevant.

Explosion limit	Comments: Product is not explosive.
Vapour pressure	Comments: No data recorded.
Vapour density	Comments: No data recorded.
Specific gravity	Value: ~ 1,02 g/ml
Solubility	Comments: Soluble in water.
Spontaneous combustability	Comments: No data recorded.
Decomposition temperature	Comments: No data recorded.
Viscosity	Value: ≤ 20 mPas Method: Brookfield DV
Explosive properties	Product is not explosive.
Oxidising properties	Does not meet the criteria for oxidising.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable product under normal conditions of handling and storage.
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10.2. Chemical stability

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

Possibility of hazardous reactions	Stable product under normal conditions of handling and storage.
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10.4. Conditions to avoid

Conditions to avoid	Earth metals such as sodium, potassium and barium.
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10.5. Incompatible materials

Materials to avoid	Alkali earth metals.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
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SECTION 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
Test reference: OECD 401

Type of toxicity: Acute
Effect tested: LD50
Route of exposure: Dermal
Value: > 2000 mg/kg
Animal test species: Rabbit
Test reference: OECD 423

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
Comments: Non-acute toxic.

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
Test reference: OECD 401
Comments: Non-acute toxic.

Type of toxicity: Acute
Effect tested: LD50
Route of exposure: Dermal
Value: > 2000 mg/kg bw
Animal test species: Rat
Test reference: OECD 402
Comments: Non-acute toxic.

Other information regarding health hazards

Skin contact	Slightly irritating to skin.
Eye contact	Causes serious eye irritation.
Sensitisation	Not Sensitising.
Mutagenicity	No known chronic or acute health risks.
Carcinogenicity, other information	No known chronic or acute health risks.
Reproductive toxicity	No known chronic or acute health risks.

Symptoms of exposure

In case of ingestion	Ingestion of large amounts may cause unconsciousness. Diarrhoea. Gastrointestinal symptoms, including upset stomach.
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In case of skin contact	Slightly Irritating.
In case of inhalation	Inhalation of high volume of vapour may cause: Dizziness. Difficulty in breathing.
In case of eye contact	Irritation of eyes and mucous membrane.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic, fish	Value: ~ 800 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	Methanol
Acute aquatic, fish	Toxicity type: Acute Value: = 15400 mg/l Effect dose concentration : LC50 Exposure time: = 96 hour(s) Species: Lepomis macrochirus Comments: Not hazardous for environment.
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 hour(s) Species: Leuciscus idus Test reference: DIN 38412 T15 Comments: Not hazardous for environment.
	Toxicity type: Acute Value: = 240 mg/l Effect dose concentration : EC50 Species: Daphnia magna Test reference: DIN 38412 T11 Comments: Not hazardous for environment.
Substance	Alkyl polyglycoside
Acute aquatic, algae	Value: ~ 21 mg/l Test duration: 72 hrs Species: Skeletonema Costatum Method: ISO 10253
Substance	Methanol
Acute aquatic, algae	Toxicity type: Acute Value: = 441 mg/l Effect dose concentration : IC50 Exposure time: = 72 hour(s)

	Comments: Not hazardous for environment.
Acute aquatic, Daphnia	Value: ~ 2500 mg/l Test duration: 24 h Species: Daphnia Magna
Substance	Alkyl polyglycoside
Acute aquatic, Daphnia	Value: ~ 150 mg/l Test duration: 48 hrs Species: Acartia Tonsa Method: ISO 14669
Substance	Methanol
Acute aquatic, Daphnia	Toxicity type: Acute Value: = 24500 mg/l Effect dose concentration : EC50 Exposure time: = 48 hour(s) Species: D.magna Comments: Not hazardous for environment.
Ecotoxicity	Not classified as hazardous for the environment.
Aquatic, comments	On basis of test data.

12.2. Persistence and degradability

Biodegradability	Value: ~ 84 % Test period: 5 days
Substance	Alkyl polyglycoside
Biodegradability	Value: ~ 100 % Method: OCDE 301E Test period: 28 days
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 day(s)
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 day(s)
Chemical oxygen demand (COD)	Value: ~ 369000 mg/l
Biological oxygen demand (BOD)	Value: ~ 310000 % Concentration: 5 days

Persistence and degradability, comments	The product is expected to be biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulative potential	Bioaccumulation: Is not expected to be bioaccumulable.
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12.4. Mobility in soil

Mobility	The product contains substances, which are water soluble and may spread in water systems.
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12.5. Results of PBT and vPvB assessment

PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.
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12.6. Other adverse effects

SECTION 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.
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EWC waste code	EWC waste code: 160305 organic wastes containing dangerous substances Classified as hazardous waste: Yes
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EU Regulations	The European List of Waste (Commission Decision 2000/532/EC). Annex III to Directive 2008/98/EC.
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SECTION 14: Transport information

Dangerous goods	No
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14.1. UN number

Comments	Not classified as dangerous goods in accordance with ADR/RID/IMO/DGR.
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14.2. UN proper shipping name

Comments	Not applicable. No information required.
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14.3. Transport hazard class(es)

Comments	Not applicable. No information required.
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14.4. Packing group

Comments	Not applicable. No information required.
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14.5. Environmental hazards

Comments	Not applicable. No information required.
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14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of MARPOL 73/78 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).
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SECTION 15: Regulatory information

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

EEC-directive	Commission Directive 2006/15/EC of 7 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 2012/45/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 regulations	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
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SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)	H225 Highly flammable liquid and vapour. H301 Toxic 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
Last update date	17.07.2017
Version	14
Comments	Change of the classification and labelling. 2017-07-17: updated sections 1-16. Control

of the substances' classification. Update of legal references.