SAFETY DATA SHEET

ARC 3X3S 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	05.11.2012
Revision date	12.10.2017

1.1. Product identifier

Product name	ARC 3X3S C6
Article no.	V-ARC3X3S

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

Use of the substance / preparation	Appliance protection.

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/Niederkorn
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: National Health Service

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	Sulfuric acid, mono-C8-10-alkyl esters, sodium salts 0,5 -0,9 %, 1-Propanaminium, N-(3– aminopropyl)-2-hydroxy-N,Ndimethyl-3-sulfo-, N-(C8-18(even numbered) acyl) derivs., hydroxides, inner salts 0,5 -0,9 %, Diethanolamine 0,1 -0,5 %
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 – 10 %
Alkyl polyglycoside	CAS No.: 68515-73-1 EC No.: 500-220-1 REACH Reg. No.: 01-2119488530-36-XXXX	Eye Dam. 1;H318	0,1 -0,9 %
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	0,5 -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	0,5 -0,9 %

Diethanolamine	CAS No.: 111-42-2 EC No.: 203-868-0 Index No.: 603-071-00-1 REACH Reg. No.: 01-2119488930-28	Acute tox. 4; H302 STOT RE2; H373 Skin Irrit. 2; H315 Eye Dam. 1; H318	0,1 -0,5 %

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. Remove any contact lenses and open eyelids widely. 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	After extensive contact, may cause irritation to skin. Ingestion of large quantities may cause nausea, vomiting, dizziness, confusion, lost of consciousness. Causes eye irritation.

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	No recommendation given.

SECTION 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

Personal protective equipment	Use personal protective equipment as required.
Fire fighting procedures	Follow the general fire precautions indicated by the workplace.

SECTION 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.

6.4. Reference to other sections

Additional information	See Sections 8 and 13 for information concerning protective equipment and waste treatment methods.

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.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Keep cool in a well-ventilated space. Keep container tightly closed. Protect against direct sunlight.

7.3. Specific end use(s)

Specific use(s)	See EWC-code under Section 13.

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Value	TWA Year
Diethylene glycol monobutyl ether	CAS No.: 112-34-5	TWA (8h) : 10 ppm TWA (8h) : 67,5 mg/m3 **OEL short term value**	TWA Year: 2011

		Value: 15 ppm **OEL short term value** Value: 101,2 mg/m3	
Alkyl polyglycoside	CAS No.: 68515-73-1		
Diethanolamine	CAS No.: 111-42-2	TWA (8h) : 3 ppm **Exposure limit letter** Letter code: H, V TWA (8h) : 15 mg/m3 **Exposure limit letter** Letter code: H, V **OEL short term value** Value: 6 ppm **Exposure limit letter** Letter code: H, V **OEL short term value** Value: 30 mg/m3 **Exposure limit letter** Letter code: H, V **Exposure limit letter** Letter description: H = Ämnet kan lätt upptas genom huden, V = Vägledande korttidsgränsvärde	TWA Year: 1993

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

8.2. Exposure controls

Safety signs

Precautionary measures to prevent exposure

Appropriate engineering controls	An eye wash bottle must be available at the work site.

Eye / face protection

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

Hand protection

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

Suitable protective clothing	Use protective clothes in order to avoid skin contact.

Respiratory protection

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

Hygiene / environmental

Specific hygiene measures	No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

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 aqueous solution Value: 6,0 – 7,5
Melting point / melting range	Comments: No information.
Freezing point	Value: 0 °C
Boiling point / boiling range	Comments: No information.
Flash point	Comments: Not relevant.
Evaporation rate	Comments: No information.
Flammability (solid, gas)	Not relevant.
Explosion limit	Comments: Product is not explosive.
Vapour pressure	Comments: No information.
Vapour density	Comments: No information.
Specific gravity	Value: ~ 1,030 g/ml

Bulk density	Comments: No information.
Solubility	Comments: Soluble in water.
Partition coefficient: n-octanol/water	Comments: No information.
Spontaneous combustability	Comments: No information.
Decomposition temperature	Comments: No information.
Viscosity	Value: ≤ 2400 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.

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.

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.
Substance	Diethanolamine
Acute toxicity	**Type of toxicity:** Acute **Effect tested:** LD50 **Route of exposure:** Oral **Value:** = 710 mg/kg bw **Animal test species:** Rat **Comments:** Hazardous if ingested. **Type of toxicity:** Acute **Effect tested:** LD50 **Route of exposure:** Dermal **Value:** = 12200 mg/kg bw **Animal test species:** Rabbit **Comments:** Non-acute toxic.

Other information regarding health hazards

Skin contact	In case of prolonged contact wth 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.
Sensitisation	No known chronic or acute health risks.
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 quantities may cause 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.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic, fish	Value: > 4500 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	Diethanolamine
Acute aquatic, fish	**Toxicity type:** Acute **Value:** = 1460 mg/kg **Effect dose concentration :** LC50 **Exposure time:** 96 hour(s) **Species:** Pimephales promelas **Comments:** Not hazardous for environment.
Substance	Alkyl polyglycoside
Acute aquatic, algae	**Value:** ~ 21 mg/l **Test duration:** 72 hrs **Species:** Skeletonerna 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: > 4500 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	The product is not environmentally hazardous to aquatic life.
Aquatic, comments	On basis of test data.

12.2. Persistence and degradability

Biodegradability	Value: ~ 55 % 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)
Substance	Diethanolamine
Biodegradability	**Value:** = 93 % **Method:** OECD 301C **Comments:** Readily biodegradable. **Test period:** 28 day(s)
Chemical oxygen demand (COD)	Value: ~ 414500 mg/l
Biological oxygen demand (BOD)	Value: ~ 230000 mg/l Concentration: 5 days
Persistence and degradability, comments	The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential	Bioaccumulation: Is not expected to be bioaccumulable.
Substance	Methanol
Bioconcentration factor (BCF)	**Value:** = 1 **Comments:** No bioaccumulation expected.
Substance	Diethanolamine
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.

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.
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 November 2008 on waste and repealing certain Directives.

SECTION 14: Transport information

Dangerous goods	No

14.1. UN number

Comments	Not applicable. No information required.

14.2. UN proper shipping name

Comments	Not applicable. No information required.

14.3. Transport hazard class(es)

Comments	Not applicable. No information required.

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 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).

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

SECTION 16: Other information

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 H373 May cause damage to organs through prolonged or repeated exposure 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	19.07.2017
Version	11
Comments	General update. No changes in the product classification. Update of legal references.