

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supersedes date 24-Apr-2020

Revision date 07-May-2024

Revision Number 4

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

1.1. Product identifier

Product Code(s) 12527
Safety data sheet number 12527
Product Name EMAL 40TE

Pure substance/mixture Mixture

Contains SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE

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

Recommended use surfactant Manufacture of soaps and detergents. Manufacture of personal care products

1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address SDS.EMEA@univarsolutions.com
Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

Emergency Telephone SGS - +32 (0)3 575 55 55 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements

Contains SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE



Signal word

Danger

Hazard statements

H315 - Causes skin irritation

H318 - Causes serious eye damage

H412 - Harmful to aquatic life with long lasting effects

EUH208 - Contains REACTION MASS OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE AND 2-METHYL-2HISOTHIAZOL-3-ONE (3:1). May produce an allergic reaction.

Precautionary statements

P280 - Wear protective gloves and eye/face protection

P273 - Avoid release to the environment

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE	>=35 - <=50%	939-265-0	-	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	Eye Dam. 1:: C>=20 % Eye Irrit. 2:: 10%<C<20%	-	-
REACTION MASS	<0.0015	(613-167-00)	-	Acute Tox. 3 (H301)	Eye Irrit. 2 ::	100	100

OF: 5-CHLORO-2-MET HYL-4-ISOTHIAZOL IN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H -ISOTHIAZOL-3-ON E [EC NO. 220-239-6] (3:1) 55965-84-9	%	-5)		Acute Tox. 2 (H330) Acute Tox. 2 (H310) Skin Corr. 1C (H314) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH071)	0.06%≤C<0.6 % Skin Corr. 1C :: C≥0.6% Skin Irrit. 2 :: 0.06%≤C<0.6 % Skin Sens. 1A :: C≥0.0015% Eye Dam. 1 :: C≥0.6%		
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Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration ≥ 0.1% (UK REACH Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures**

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical attention. Place unconscious person on the side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire symptoms may be delayed.
Eye contact	Get immediate medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Chemical burns must be treated promptly by a physician.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists. Chemical burns must be treated promptly by a physician. Wash contaminated clothing before reuse.
Ingestion	Get immediate medical attention. Rinse mouth thoroughly with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Place unconscious person on the side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Chemical burns must be treated promptly by a physician.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Adverse symptoms may include:.
Eyes	May cause redness and tearing of the eyes. Pain.
Dermal	Irritating. Pain. blistering.

Ingestion Stomach pain

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical, CO₂, water spray or regular foam.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Closed containers can burst violently when heated, due to excess pressure build-up. The material is harmful to aquatic life with long-lasting effects. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Hazardous combustion products Thermal decomposition may release: Carbon dioxide (CO₂). Carbon monoxide. Nitrogen oxides (NO_x). Oxides of sulphur.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Evacuate personnel to safe areas. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Cool containers with flooding quantities of water until well after fire is out. Collect contaminated fire extinguishing water separately. Do not allow it to enter drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation. In case of inadequate ventilation wear respiratory protection. Evacuate personnel to safe areas. Do not touch or walk through spilled material.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Methods for containment Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for cleaning up	Collect in containers and seal securely. Remove containers and flush area with water.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations. Observe good chemical hygiene practices.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Avoid inhalation, ingestion and contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment. Use personal protection recommended in Section 8. Avoid release to the environment. Keep only in original container. Keep container tightly closed. Empty containers retain product residue and can be hazardous. Do not re-use container.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using the product. Wash hands before breaks and after work. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep/store only in original container. Protect from direct sunlight. Keep away from food, drink and animal feedingstuffs. Keep in properly labelled containers. Keep containers upright. Use appropriate containment to avoid environmental contamination. Store away from other materials.
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7.3. Specific end use(s)

Specific use(s)
See section 1 for more information.

Risk Management Methods (RMM)	The information required is contained in this Safety Data Sheet.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Biological occupational exposure limits	This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS,		4060 mg/kg/day [4] [6]	285 mg/m ³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
COMPOUNDS WITH TRIETHANOLAMINE -			
REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZO LIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H -ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9			0.02 mg/m ³ [5] [6] 0.04 mg/m ³ [5] [7]

[4] Systemic health effects.
 [5] Local health effects.
 [6] Long term.
 [7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE -	24 mg/kg/day [4] [6]	2440 mg/kg/day [4] [6]	85 mg/m ³ [4] [6]
REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZO LIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H -ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9	0.09 mg/kg bw/day [4] [6] 0.11 mg/kg bw/day [4] [7]		0.02 mg/m ³ [5] [6] 0.04 mg/m ³ [5] [7]

[4] Systemic health effects.
 [5] Local health effects.
 [6] Long term.
 [7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE -	0.012 mg/l		0.0012 mg/l		
REACTION MASS OF: 5-CHLORO-2-METHYL-4-I SOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H -ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9	0.00339 mg/l	0.00339 mg/l	0.00339 mg/l	3.39 µg/L	

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE	0.422 mg/kg	0.0422 mg/kg		0.083 mg/kg	1.35 mg/l
REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOETHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOETHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9	0.027 mg/kg sediment dw	0.027 mg/kg sediment dw	0.23 mg/l	0.01 mg/kg soil dw	

8.2. Exposure controls

Engineering controls

Ensure adequate ventilation. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection

Use eye protection according to EN 166. Face protection shield and/or safety goggles.

Hand protection

Chemical resistant gloves required for prolonged or repeated contact. Gloves should be chosen in consultation with the supplier / manufacturer and taking account of a full assessment of the working conditions. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Examples of acceptable glove barrier materials include: Butyl rubber. Viton™. Nitrile rubber. Neoprene gloves.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Long term (repeated)	Butyl rubber Viton™ Nitrile rubber Neoprene gloves		8 hours

Skin and body protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection

None under normal use conditions. In case of inadequate ventilation wear respiratory protection.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using the product. Wash hands before breaks and after work. Remove contaminated clothing and protective equipment before entering eating areas.

Environmental exposure controls

Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained. See section 7 for more information. See section 13 for more information.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	Colourless to pale yellow
Odour	Characteristic.
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	< 0 °C	No information available.
Initial boiling point and boiling range	> 100 °C	No information available.
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point	> 100 °C	Closed cup.
Autoignition temperature		No information available.
Decomposition temperature	223 °C	No information available.
pH		No information available.
pH (as aqueous solution)	6.5 - 7.5	solution (10 %).
Kinematic viscosity		No information available.
Dynamic viscosity	<150 cP	@ 20 °C.
Water solubility	Easily soluble	No information available.
Solubility(ies)		No information available.
Partition coefficient	< 0.866	No information available.
Vapour pressure	0.019 kPa	@ 20 °C.
Relative density	1.1	No information available.
Bulk density		No information available
Liquid Density	1.035 - 1.045 g/cm ³	@ 20 °C
Relative vapour density		No information available.
Particle characteristics		Not applicable.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	Not considered to be explosive.	
Oxidising properties	Does not meet the criteria for classification as oxidising	

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No reactive hazards known/expected.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing.
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10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Nitrogen oxides (NO_x). Oxides of sulphur.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Information on likely routes of exposure****Product Information**

Inhalation	No known effect.
Eye contact	Causes serious eye damage.
Skin contact	Causes skin irritation.
Ingestion	No known effect.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms May cause redness and tearing of the eyes. Skin contact may cause:. Irritation. Redness. blistering. Ingestion may cause:. Stomach pain.

Acute toxicity**Numerical measures of toxicity**

Based on available data, the classification criteria are not met

The following values are calculated based on chapter 3.1 of the GHS document

Oral LD50 > 2000 mg/kg (rat)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE	=500 - 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOT HIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H -ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1)	= 64 mg/kg (Rat)	= 87.12 mg/kg (Rabbit)	= 0.33 mg/l (Rat) (4h)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Causes skin irritation.

SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE (-)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rabbit	Dermal			edema (Score: 2.1)
	Rabbit	Dermal			Erythema (Score: 3.7) Causes skin irritation

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes severe burns Redness

Serious eye damage/eye irritation Causes serious eye damage.

SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE (-)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes serious eye damage C: ≥20%
					Causes serious eye irritation C: ≥10 to <20%

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes serious eye damage Causes eye burns MAY CAUSE PERMANENT EYE INJURY

Respiratory or skin sensitisation Based on available data the classification criteria are not met.

SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE (-)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Not a skin sensitiser

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	May cause allergic skin reaction

Germ cell mutagenicity Based on available data the classification criteria are not met.

Component Information

SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE (-)

Method	Species	Results
OECD Test No. 471: Bacterial Reverse Mutation Test	Bacteria in vitro	Negative
OECD Test No. 474: Mammalian Erythrocyte Micronucleus Test	in vivo	Did not show mutagenic effects in animal experiments

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H

-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Results
	in vitro	Not mutagenic
	in vivo	Not mutagenic

Carcinogenicity

Based on available data the classification criteria are not met.

Component Information

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Results
		Did not cause cancer in laboratory animals.

Reproductive toxicity

Based on available data the classification criteria are not met.

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Results
		This product does not contain any known or suspected reproductive hazards

STOT - single exposure

Based on available data the classification criteria are not met.

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Based on available data, specific target organ toxicity is not expected after single oral, single inhalation, or single dermal exposure.

STOT - repeated exposure

Based on available data, the classification criteria are not met.

Component Information

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

Aspiration hazard

Based on available data the classification criteria are not met.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Harmful to aquatic life with long lasting effects.

SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE (-)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Algae	EC50	11 mg/L	72 hours	
DIN 38412	Daphnia magna	EC50	7.1 mg/L	48 hours	
OECD Test No. 203: Fish, Acute Toxicity Test	Fish	EC50	3.6 mg/L	96 hours	
Chronic aquatic toxicity	Algae	NOEC	3 mg/L	72 hours	
Chronic aquatic toxicity	Daphnia magna	NOEC	0.12 mg/L	7 days	
Chronic aquatic toxicity	Fish	NOEC	>1.357 mg/L	42 days	

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Oncorhynchus mykiss (rainbow trout)	LC50	0.19 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	LC50	0.16 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Skeletonema costatum	NOEC	0.00049 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Skeletonema costatum	ErC50	0.0052 mg/L	48 hours	
Chronic aquatic toxicity	Oncorhynchus mykiss (rainbow trout)	NOEC	0.05 mg/L	14 days	
Chronic aquatic toxicity	Daphnia magna	NOEC	0.1 mg/L	21 days	

12.2. Persistence and degradability

Persistence and degradability This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE (-)

Method	Exposure time	Value	Results
			Readily biodegradable

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Exposure time	Value	Results
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	10 days	Biodegradation < 50%	Rapidly biodegradable
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12.3. Bioaccumulative potential

Bioaccumulation Not likely to bioaccumulate.

Component Information

Chemical name	Partition coefficient
SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE	<-0.866
REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1)	0.401

12.4. Mobility in soil

Mobility in soil No information available.

Mobility Soluble in water.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
SULPHURIC ACID, MONO-C12-14 (EVEN NUMBERED)-ALKYL ESTERS, COMPOUNDS WITH TRIETHANOLAMINE	The substance is not PBT / vPvB
REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1)	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

Contaminated packaging Do not reuse empty containers. Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number Not regulated

14.2

14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated

14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions None

IMDG

14.1 UN number or ID number	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Authorisations and/or restrictions on use:**

This product does not contain substances subject to restriction (UK REACH - Annex XVII).

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Chemical name	The Biocidal Products Regulations 2001 (as amended)
REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) - 55965-84-9	Product-type 2: Disinfectants and algacides not intended for direct application to humans or animals Product-type 4: Food and feed area Product-type 6: Preservatives for products during storage Product-type 11: Preservatives for liquid-cooling and processing systems Product-type 12: Slimicides Product-type 13: Working or cutting fluid

	preservatives
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The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment**Chemical Safety Report**

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H301 - Toxic if swallowed
H310 - Fatal in contact with skin
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H330 - Fatal if inhaled
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

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Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 Environmental Protection Agency
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 U.S. National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
 Organisation for Economic Co-operation and Development Screening Information Data Set
 World Health Organization

Prepared By J Forth
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This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
 Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information

relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet