Safety Data Sheet

According to Regulation (EC) No 1907/2006

Aciplusfoam VF59

Revision: 2024-08-01 **Version:** 02.1

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

1.1 Product identifier

Trade name: Aciplusfoam VF59

UFI: 12H1-40TK-F003-6FT4

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

Product use: Open plant cleaning chemical.
For industrial use only..

Uses advised against: Uses other than those identified are not recommended.

SWED - Sector-specific worker exposure description :
AISE_SWED_IS_8b_1
AISE_SWED_IS_4_1
AISE_SWED_IS_7_4
AISE_SWED_IS_7_5
AISE_SWED_IS_13_3

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, De Corridor 4, 3621ZB Breukelen [Maarssenbroeksedijk 2, 3542DN Utrecht], The Netherlands

Contact details
Diversey Ltd
Weston Favell Centre, Northampton NN3 8PD, United Kingdom
Tel: 01604 405311, Fax: 01604 406809
Regulatory Email: customerservice.uk@solenis.com

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible)
For medical or environmental emergency only:
call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin corrosion, Category 1B (H314)
Serious eye damage, Category 1 (H318)
Corrosive to metals, Category 1 (H290)

2.2 Label elements

Signal word: Danger.

Contains phosphoric acid (Phosphoric Acid), nitric acid (Nitric Acid), Alcohols, C10-16, ethoxylated (7-<15 EO) (C12-15 Pareth-7), alkyl alcohol ethoxylate (Trideceth 7-10), amines, C12-14 (even numbered)-alkyldimethyl, N-oxides (Lauramine oxide)

Hazard statements:
H314 - Causes severe skin burns and eye damage.
H290 - May be corrosive to metals.

Precautionary statements:
P260 - Do not breathe vapours.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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 CENTRE, doctor or physician.

2.3 Other hazards
Regulation (EU) 2019/1148 - restricted explosives precursor.

Regulated explosives precursor - Control of Poisons and Explosives Precursors Regulations 2015

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
phosphoric acid	231-633-2	7664-38-2	01-2119485924-24	Skin corrosion, Category 1B (H314) Acute toxicity - Oral, Category 4 (H302) Serious eye damage, Category 1 (H318) Corrosive to metals, Category 1 (H290)		20-30
nitric acid	231-714-2	7697-37-2	01-2119487297-23	Oxidising liquids, Category 3 (H272) Acute toxicity - Inhalation, Category 3 (H331) Skin corrosion, Category 1A (H314) Corrosive to metals, Category 1 (H290)		3-10
Alcohols, C10-16, ethoxylated (7-<15 EO)	[4]	68002-97-1	[4]	Acute toxicity - Oral, Category 4 (H302) Serious eye damage, Category 1 (H318) Chronic aquatic toxicity, Category 3 (H412)		3-10
alkyl alcohol ethoxylate	[4]	69011-36-5	[4]	Acute toxicity - Oral, Category 4 (H302) Serious eye damage, Category 1 (H318)		1-3
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	931-292-6	308062-28-4	01-2119490061-47	Acute toxicity - Oral, Category 4 (H302) Skin irritation, Category 2 (H315) Serious eye damage, Category 1 (H318) Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 2 (H411)		1-3

Specific concentration limits
phosphoric acid:
• Serious eye damage, Category 1 (H318) >= 25% > Eye irritation, Category 2 (H319) >= 10%
• Skin corrosion, Category 1B (H314) >= 25% > Skin irritation, Category 2 (H315) >= 10%
nitric acid :
• Skin corrosion, Category 1A (H314) >= 70% > Skin corrosion, Category 1A (H314) >= 20% > Skin corrosion, Category 1B (H314) >= 5% > Skin irritation, Category 2 (H315) >= 1%
alkyl alcohol ethoxylate:
• Serious eye damage, Category 1 (H318) >= 10% > Eye irritation, Category 2 (H319) >= 1%

Workplace exposure limit(s), if available, are listed in subsection 8.1.
ATE, if available, are listed in section 11.
[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.
For the full text of the H and EUH phrases mentioned in this Section, see Section 16..

SECTION 4: First aid measures

4.1 Description of first aid measures

General Information: If unconscious place in recovery position and seek medical advice. Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

Inhalation: Get medical attention or advice if you feel unwell.

Skin contact: Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Take off immediately all contaminated clothing and wash it before reuse. Immediately call a POISON CENTRE, doctor or physician.

Eye contact: Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician.

Ingestion: Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

Self-protection of first aider: Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: No known effects or symptoms in normal use.

Skin contact: Causes severe burns.

Eye contact: Causes severe or permanent damage.

Ingestion: Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

4.3 Indication of any immediate medical attention and special treatment needed
No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture
No special hazards known.

5.3 Advice for firefighters
As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation. Do not breathe dust or vapour. Wear suitable protective clothing. Wear eye/face protection. Wear suitable gloves.

6.2 Environmental precautions
Dilute with plenty of water. Do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up
Ensure adequate ventilation. Dyke to collect large liquid spills. Use neutralising agent. Absorb with liquid-binding material (sand, diatomite, universal binders). Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

6.4 Reference to other sections
For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Measures to prevent fire and explosions:
No special precautions required.
Measures required to protect the environment:
For environmental exposure controls see subsection 8.2.
Advices on general occupational hygiene:
Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless adviced by Diversey. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Do not breathe vapours. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in accordance with local and national regulations. Store in a closed container. Keep only in original packaging. Keep cool. Keep away from heat and direct sunlight.
For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)
No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Workplace exposure limits

Air limit values, if available:

Ingredient(s)	UK - Long term value(s)	UK - Short term value(s)
phosphoric acid	1 mg/m³	2 mg/m³
nitric acid		1 ppm 2.6 mg/m³

Biological limit values, if available:

Recommended monitoring procedures, if available:

Additional exposure limits under the conditions of use, if available:

DNEL/DMEL and PNEC values
Human exposure
DNEL/DMEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects

phosphoric acid	-	-	-	0.1
nitric acid	-	-	-	-
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	-	-
alkyl alcohol ethoxylate	-	-	-	-
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	-	-	-	0.44

DNEL/DMEL dermal exposure - Worker

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
phosphoric acid	No data available	-	No data available	-
nitric acid	-	-	-	-
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	No data available	-
alkyl alcohol ethoxylate	-	-	-	-
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available	-	- %	11

DNEL/DMEL dermal exposure - Consumer

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
phosphoric acid	No data available	-	No data available	-
nitric acid	-	-	-	-
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	No data available	-
alkyl alcohol ethoxylate	-	-	-	-
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available	-	- %	5.5

DNEL/DMEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
phosphoric acid	-	-	2.92	1
nitric acid	-	-	2.6	-
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	-	-
alkyl alcohol ethoxylate	-	-	-	-
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	-	-	-	6.2

DNEL/DMEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
phosphoric acid	-	-	0.73	-
nitric acid	-	-	1.3	-
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	-	-
alkyl alcohol ethoxylate	-	-	-	-
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	-	-	-	1.53

Environmental exposure

Environmental exposure - PNEC

Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
phosphoric acid	-	-	-	-
nitric acid	-	-	-	-
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	-	-
alkyl alcohol ethoxylate	-	-	-	-
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	0.0335	0.00335	0.0335	24

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m³)
phosphoric acid	-	-	-	-
nitric acid	-	-	-	-
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	-	-
alkyl alcohol ethoxylate	-	-	-	-
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	5.24	0.524	1.02	-

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet.
If available, please refer to the product information sheet for application and handling instructions.
Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

Appropriate engineering controls: If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.

Appropriate organisational controls: No special requirements under normal use conditions.

REACH use scenarios considered for the undiluted product:

	SWED - Sector-specific worker exposure description	LCS	PROC	Duration (min)	ERC
Automatic transfer and dilution	AISE_SWED_IS_8b_1	IS	PROC 8b	60	ERC4

Personal protective equipment

Eye / face protection: Safety glasses or goggles (EN 16321 / EN 166). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.

Hand protection: Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.
Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm
Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm
In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

Body protection: No special requirements under normal use conditions. Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).

Respiratory protection: Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or aerosols should be avoided.

Environmental exposure controls: Should not reach sewage water or drainage ditch undiluted or unneutralised.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (% w/w): 10

Appropriate engineering controls: Provide a good standard of general ventilation. Ensure that foam equipment does not generate respirable particles.

Appropriate organisational controls: No special requirements under normal use conditions. Users are advised to consider national Occupational Exposure Limits or other equivalent values, if available.

REACH use scenarios considered for the diluted product:

	SWED	LCS	PROC	Duration (min)	ERC
Manual application by dipping, soaking, pouring	AISE_SWED_IS_13_3	IS	PROC 13	240	ERC4
Automatic application in a dedicated system	AISE_SWED_IS_4_1	IS	PROC 4	480	ERC8a
Foam spraying	AISE_SWED_IS_7_4	IS	PROC 7	480	ERC4

Personal protective equipment

Eye / face protection: Safety glasses or goggles (EN 16321 / EN 166) are always recommended for foam applications.

Hand protection: Chemical-resistant protective gloves (EN 374) are always recommended for foam applications. Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.
Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm
In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

Body protection: No special requirements under normal use conditions.

Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: No special requirements under normal use conditions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
Information in this section refers to the product, unless it is specifically stated that substance data is listed

Method / remark

Physical state: Liquid
Colour: Clear , Pale , from Colourless to Yellow
Odour: Product specific
Odour threshold: Not applicable

Melting point/freezing point (°C): Not determined — Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined — See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
phosphoric acid	158	Method not given	1013
nitric acid	116	Method not given	
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available		
alkyl alcohol ethoxylate	> 200	Method not given	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	> 100	Method not given	

Method / remark

Flammability (solid, gas): Not applicable to liquids
Flammability (liquid): Not flammable.
Flash point (°C): > 100 °C — closed cup
Sustained combustion: Not applicable.
(UN Manual of Tests and Criteria, section 32, L.2)
Lower and upper explosion limit/flammability limit (%): Not determined — See substance data

Substance data, flammability or explosive limits, if available:

Method / remark

Autoignition temperature: Not determined
Decomposition temperature: Not applicable.
pH: < 2 (neat) — ISO 4316
Dilution pH: < 2 (10 %) — ISO 4316
Kinematic viscosity: Not determined
Solubility in / Miscibility with water: Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
phosphoric acid	Soluble		
nitric acid	> 500	Method not given	
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available		
alkyl alcohol ethoxylate	Soluble	Method not given	20
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	409.5 Soluble	Method not given	20

Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3

Method / remark

Vapour pressure: Not determined — See substance data

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
phosphoric acid	4	Method not given	20
nitric acid	770	Method not given	20
Alcohols, C10-16, ethoxylated (7-<15 EO)	< 0.15		20
alkyl alcohol ethoxylate	Negligible	Method not given	20-25
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	< 10	Method not given	25

Method / remark

Relative density: ≈ 1.19 (20 °C) — OECD 109 (EU A.3)
Relative vapour density: No data available. — Not relevant to classification of this product
Particle characteristics: No data available. — Not applicable to liquids.

9.2 Other information
9.2.1 Information with regard to physical hazard classes
Explosive properties: Not explosive. — Not explosive, based on substance properties
Oxidising properties: Not oxidising.
Corrosion to metals: Corrosive — Weight of evidence

9.2.2 Other safety characteristics
No other relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity
No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability
Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions
No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid
None known under normal storage and use conditions.

10.5 Incompatible materials
May be corrosive to metals. Reacts with alkali. Keep away from products containing chlorine-based bleaching agents or sulphites.

10.6 Hazardous decomposition products
Nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Mixture data: .

Relevant calculated ATE(s):
ATE - Oral (mg/kg): >2000
ATE - Inhalatory, vapours (mg/l): >20

Substance data, where relevant and available, are listed below:.

Acute toxicity
Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE Oral (mg/kg)
phosphoric acid	LD_{50}	> 300-5000	Rat	OECD 423 (EU B.1 tris)		2600
nitric acid		No data available				Not established
Alcohols, C10-16, ethoxylated (7-<15 EO)	LD_{50}	300-2000	Rat	Weight of evidence		1000
alkyl alcohol ethoxylate	LD_{50}	> 300-2000	Rat	OECD 423 (EU B.1 tris)		25000
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	LD_{50}	1064	Rat	OECD 401 (EU B.1)		33000

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE Dermal (mg/kg)
phosphoric acid	LD_{50}	2740	Rabbit	Method not given		Not established
nitric acid		No data available				Not established
Alcohols, C10-16, ethoxylated (7-<15 EO)	LD_{50}	> 2000		Method not given		Not established
alkyl alcohol ethoxylate	LD_{50}	> 2000	Rabbit	Method not given		Not established
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	LD_{50}	> -	Rat	OECD 402 (EU B.3)		Not established

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
phosphoric acid	LC_{50}	850	Rat	Method not given	2
nitric acid	LC_{50}	> 2.65 (vapour)	Rat	OECD 403 (EU B.2)	
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available			
alkyl alcohol ethoxylate		No data available			
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		No data available			

Acute inhalative toxicity, continued

Ingredient(s)	ATE - inhalation, dust (mg/l)	ATE - inhalation, mist (mg/l)	ATE - inhalation, vapour (mg/l)	ATE - inhalation, gas (mg/l)
phosphoric acid	Not established	Not established	Not established	Not established
nitric acid	Not established	Not established	2.65	Not established
Alcohols, C10-16, ethoxylated (7-<15 EO)	Not established	Not established	Not established	Not established
alkyl alcohol ethoxylate	Not established	Not established	Not established	Not established

amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Not established	Not established	Not established	Not established

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
phosphoric acid	Corrosive	Rabbit	OECD 404 (EU B.4)	
nitric acid	Corrosive	Rabbit	Method not given	
Alcohols, C10-16, ethoxylated (7-<15 EO)	Not irritant	Rabbit	Method not given	
alkyl alcohol ethoxylate	Not irritant	Rabbit	OECD 404 (EU B.4)	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
phosphoric acid	Severe damage	Rabbit	Method not given	
nitric acid	Corrosive		Method not given	
Alcohols, C10-16, ethoxylated (7-<15 EO)	Severe damage	Rabbit	Method not given	
alkyl alcohol ethoxylate	Severe damage	Rabbit	Method not given	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Severe damage	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
phosphoric acid	No data available			
nitric acid	No data available			
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available			
alkyl alcohol ethoxylate	No data available			
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
phosphoric acid	Not sensitising	Human	Human experience	
nitric acid	No data available			
Alcohols, C10-16, ethoxylated (7-<15 EO)	Not sensitising	Guinea pig	Method not given	
alkyl alcohol ethoxylate	Not sensitising	Guinea pig	Method not given	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
phosphoric acid	No data available			
nitric acid	No data available			
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available			
alkyl alcohol ethoxylate	No data available			
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available			

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
phosphoric acid	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476 (Mouse lymphoma)	No data available	
nitric acid	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	
Alcohols, C10-16, ethoxylated (7-<15 EO)	No evidence for mutagenicity, negative test results	Method not given	No evidence for mutagenicity, negative test results	Method not given
alkyl alcohol ethoxylate	No evidence of genotoxicity, negative test results	Method not given	No evidence of genotoxicity, negative test results	Method not given
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	

Carcinogenicity

Ingredient(s)	Effect
phosphoric acid	No data available
nitric acid	No evidence for carcinogenicity, negative test results
Alcohols, C10-16, ethoxylated (7-<15 EO)	No evidence for carcinogenicity, weight-of-evidence

alkyl alcohol ethoxylate	No evidence for carcinogenicity, weight-of-evidence
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No evidence for carcinogenicity, negative test results

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
phosphoric acid	NOAEL	Developmental toxicity	410	Rat	OECD 422, oral	10 day(s)	No evidence for reproductive toxicity No evidence for developmental toxicity
nitric acid	NOAEL	Developmental toxicity	1500	Rat	OECD 422, oral	28 day(s)	Not toxic for reproduction
Alcohols, C10-16, ethoxylated (7-<15 EO)			No data available		Literature		No evidence for teratogenic effects No evidence for reproductive toxicity
alkyl alcohol ethoxylate	NOAEL	Teratogenic effects	> 50	Rat	Not known		No known significant effects or critical hazards
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	NOAEL	Teratogenic effects	25	Rat	Non guideline test		

Repeated dose toxicity

Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
phosphoric acid	NOAEL	250	Rat	OECD 422, oral		
nitric acid	NOAEL	1500	Rat	OECD 422, oral	28	
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available				
alkyl alcohol ethoxylate		No data available				
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	NOAEL	-		OECD 422, oral		

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
phosphoric acid		No data available				
nitric acid		No data available				
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available				
alkyl alcohol ethoxylate		No data available				
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		No data available				

Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
phosphoric acid		No data available				
nitric acid		No data available				
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available				
alkyl alcohol ethoxylate		No data available				
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		No data available				

Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
phosphoric acid			No data available					
nitric acid			No data available					
Alcohols, C10-16, ethoxylated (7-<15 EO)			No data available					
alkyl alcohol ethoxylate	Oral	NOAEL	50	Rat	Method not given	24 month(s)	Effects on organ weights	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
phosphoric acid	No data available
nitric acid	No data available
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available
alkyl alcohol ethoxylate	Not applicable
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
phosphoric acid	No data available
nitric acid	No data available
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available
alkyl alcohol ethoxylate	Not applicable
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available

Aspiration hazard
Substances with an aspiration hazard (H304), if any, are listed in section 3.

Potential adverse health effects and symptoms
Effects and symptoms related to the product, if any, are listed in subsection 4.2.

11.2 Information on other hazards
11.2.1 Endocrine disrupting properties
Endocrine disrupting properties - Human data, if available:

11.2.2 Other information
No other relevant information available.

SECTION 12: Ecological information

12.1 Toxicity

No data is available on the mixture .

Substance data, where relevant and available, are listed below:

Aquatic short-term toxicity
Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
phosphoric acid	LC_{50}	138	*Gambusia affinis*	Method not given	96
nitric acid	LC_{50}	12.5	*Gambusia affinis*	Method not given	96
Alcohols, C10-16, ethoxylated (7-<15 EO)	LC_{50}	> 1-10	*Brachydanio rerio*	Method not given	96
alkyl alcohol ethoxylate	LC_{50}	> 1 - 10	*Cyprinus carpio*	OECD 203 (EU C.1)	96
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	LC_{50}	2.67-3.46	*Pimephales promelas*	Similar to OECD 203	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
phosphoric acid	EC_{50}	> 100	*Daphnia magna Straus*	OECD 202 (EU C.2)	48
nitric acid	EC_{50}	8609	*Daphnia magna Straus*	Non guideline test	24
Alcohols, C10-16, ethoxylated (7-<15 EO)	EC_{50}	> 1-10	*Daphnia magna Straus*	Method not given	48
alkyl alcohol ethoxylate	EC_{50}	1 - 10	*Daphnia magna Straus*	OECD 202, static	48
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	EC_{50}	3.1	*Daphnia magna Straus*	OECD 202, static	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
phosphoric acid	EC_{50}	> 100	*Desmodesmus subspicatus*	OECD 201 (EU C.3)	72
nitric acid		No data			

		available			
Alcohols, C10-16, ethoxylated (7-<15 EO)	EC_{50}	> 1-10	*Desmodesmus subspicatus*	Method not given	72
alkyl alcohol ethoxylate	EC_{50}	1 - 10	*Desmodesmus subspicatus*	OECD 201, static	72
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	E_rC_{50}	0.143	*Pseudokirchneriella subcapitata*	Method not given	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
phosphoric acid		No data available			
nitric acid		No data available			
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available			
alkyl alcohol ethoxylate		No data available			
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
phosphoric acid	EC_{50}	270	*Activated sludge*	Method not given	
nitric acid		No data available			
Alcohols, C10-16, ethoxylated (7-<15 EO)	EC_{50}	140	*Activated sludge*	Method not given	
alkyl alcohol ethoxylate	EC_{10}	> 10000	*Activated sludge*	DIN 38412 / Part 8	17 hour(s)
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	EC_{10}	> -	*Bacteria*	Non guideline test	- hour(s)

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
phosphoric acid		No data available				
nitric acid	LD_{50}	8226	*Oncorhynchus mykiss*	Method not given	96 hour(s)	
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available				
alkyl alcohol ethoxylate		No data available				
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	NOEC	0.42	*Pimephales promelas*	Method not given	302 day(s)	

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
phosphoric acid		No data available				
nitric acid		No data available				
Alcohols, C10-16, ethoxylated (7-<15 EO)	EC_{10}	> 0.1-1	*Daphnia sp.*	OECD 211		
alkyl alcohol ethoxylate		No data available				
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	NOEC	0.7	*Daphnia magna*	OECD 211, flow-through	21 day(s)	

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed
phosphoric acid		No data available				
nitric acid		No data available				
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available				
alkyl alcohol ethoxylate		No data available				
amines, C12-14 (even numbered)-alkyldimethyl,		No data				

N-oxides		available				

Terrestrial toxicity

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
phosphoric acid		No data available				
nitric acid		No data available				
alkyl alcohol ethoxylate	NOEC	220	*Eisenia fetida*			

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
phosphoric acid		No data available				
nitric acid		No data available				
alkyl alcohol ethoxylate	NOEC	10	*Lepidium sativum*	OECD 208		

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
phosphoric acid		No data available				
nitric acid		No data available				

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
phosphoric acid		No data available				
nitric acid		No data available				

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
phosphoric acid		No data available				
nitric acid		No data available				

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
phosphoric acid	No data available			
nitric acid	No data available			

Abiotic degradation - hydrolysis, if available:

Ingredient(s)	Half-life time in fresh water	Method	Evaluation	Remark
phosphoric acid	No data available			
nitric acid	No data available			

Abiotic degradation - other processes, if available:

Ingredient(s)	Type	Half-life time	Method	Evaluation	Remark
phosphoric acid		No data available			
nitric acid		No data available			

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT_{50}	Method	Evaluation
phosphoric acid					Not applicable (inorganic

					substance)
nitric acid					Not applicable (inorganic substance)
Alcohols, C10-16, ethoxylated (7-<15 EO)	Activated sludge, aerobe	Method not given	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable
alkyl alcohol ethoxylate	Activated sludge, aerobe	CO_2 production	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Activated sludge, aerobe	CO_2 production	90 % in 28 day(s)	OECD 301B	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT_{50}	Method	Evaluation
phosphoric acid					No data available
nitric acid					No data available

Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT_{50}	Method	Evaluation
phosphoric acid					No data available
nitric acid					No data available

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
phosphoric acid	No data available		No bioaccumulation expected	
nitric acid	-2.3	Method not given	Not relevant, does not bioaccumulate	
Alcohols, C10-16, ethoxylated (7-<15 EO)	3.55	QSAR	No bioaccumulation expected	
alkyl alcohol ethoxylate	4.09	QSAR	No bioaccumulation expected	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	< -	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
phosphoric acid	No data available			No bioaccumulation expected	
nitric acid	No data available				
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available				
alkyl alcohol ethoxylate	-			No bioaccumulation expected	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available				

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
phosphoric acid	No data available				Potential for mobility in soil, soluble in water
nitric acid	No data available				Mobile in aqueous environment
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available				
alkyl alcohol ethoxylate	No data available				Immobile in soil or sediment
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available				Low mobillity in soil

12.5 Results of PBT and vPvB assessment

Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

12.6 Endocrine disrupting properties

Endocrine disrupting properties - Environmental effects, if available:

12.7 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused products:

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging

material is suitable for energy recovery or recycling in line with local legislation.

European Waste Catalogue: 20 01 14* - acids.

Empty packaging
Recommendation: Dispose of observing national or local regulations.
Suitable cleaning agents: Water, if necessary with cleaning agent.

SECTION 14: Transport information

Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number: 2031
14.2 UN proper shipping name:
Nitric acid , solution
14.3 Transport hazard class(es):
Transport hazard class (and subsidiary risks): 8
14.4 Packing group: II
14.5 Environmental hazards:
Environmentally hazardous: No
Marine pollutant: No
14.6 Special precautions for user: None known.
14.7 Maritime transport in bulk according to IMO instruments: The product is not transported in bulk tankers.

Other relevant information:
ADR
Classification code: C1
Tunnel restriction code: (E)
Hazard identification number: 80
IMO/IMDG
EmS: F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of ADR and the provisions of the IMDG Code
Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

SECTION 15: Regulatory information

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

National regulations :
• Regulation (EC) 1907/2006 - REACH (UK amended)
• Regulation (EC) 1272/2008 - CLP (UK amended)
• Regulation (EC) 648/2004 - Detergents regulation (UK amended)
• Control of Poisons and Explosives Precursors Regulations 2015
• Delegated Regulation (EU) 2017/2100 and Regulation (EU) 2018/605 (UK amended)
• Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
• International Maritime Dangerous Goods (IMDG) Code

Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII): Not applicable.

Ingredients according to Detergents Regulation
non-ionic surfactants 5 - 15 %

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) 648/2004 on detergents (UK amended). Data to support this assertion are held at the disposal of the competent authorities of the UK and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Comah - classification: Not classified

15.2 Chemical safety assessment
A chemical safety assessment has not been carried out on the mixture

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

SDS code: MS1001739 **Version:** 02.1 **Revision:** 2024-08-01

Reason for revision:
Overall design adjusted in accordance with Amendment 2020/878, Annex II of Regulation (EC) No 1907/2006, This data sheet contains changes from the previous version in section(s):, 3, 16

Classification procedure
The classification of the mixture is in general based on calculation methods using substance data, as required by Regulation (EC) No 1272/2008. If for certain classifications data on the mixture is available or for example bridging principles or weight of evidence can be used for classification, this will be indicated in the relevant sections of the Safety Data Sheet. See section 9 for physical chemical properties, section 11 for toxicological information and section 12 for ecological information.

Abbreviations and acronyms:
• AISE - The international Association for Soaps, Detergents and Maintenance Products
• ATE - Acute Toxicity Estimate
• DNEL - Derived No Effect Limit
• EC50 - effective concentration, 50%
• ERC - Environmental release categories
• EUH - CLP Specific hazard statement
• LC50 - Lethal Concentration, 50% / Median Lethal Concentration
• LCS - Life cycle stage
• LD50 - Lethal Dose, 50% / Median Lethal dose
• NOAEL - No observed adverse effect level
• NOEL - No observed effect level
• OECD - Organisation for Economic Cooperation and Development
• PBT - Persistent, Bioaccumulative and Toxic
• PNEC - Predicted No Effect Concentration
• PROC - Process categories
• REACH number - REACH registration number, without supplier specific part
• vPvB - very Persistent and very Bioaccumulative
• H272 - May intensify fire; oxidiser.
• H290 - May be corrosive to metals.
• H302 - Harmful if swallowed.
• H314 - Causes severe skin burns and eye damage.
• H315 - Causes skin irritation.
• H318 - Causes serious eye damage.
• H331 - Toxic if inhaled.
• H400 - Very toxic to aquatic life.
• H411 - Toxic to aquatic life with long lasting effects.
• H412 - Harmful to aquatic life with long lasting effects.

End of Safety Data Sheet