Vaihinger SANOMAT Schlagsahne-Automaten

Desinfection and cleaning with SANO-Premium-Clean -according DIN 10507-

As a manufacturerer of cream whipping machines we naturally would like to provide the fitting desinfection-cleaner, too, so that your machine will always be on the best hygienic level.

Many of our machines are certified according the DIN 10507 regulations. So our desinfection-cleaner is, too. The norm „DIN 10507 food hygiene for cream whipping machines“ determines hygiene requirements of desinfection-cleaners and machines for whipping cream. Furthermore it provides information about the appropriate operation, cleaning and desinfection as well as maintenance of cream whipping machines and used materials.

To receive a DIN-certification all products must meet following requirements (excerpt of DIN 10507):

- ⇒ easy and daily cleaning and desinfection of machine
- ⇒ cleaning and desinfection by flush through method, water temperature highest 50°C
- ⇒ cleaning and desinfection after shutdown, maintenance, repairing and usage
- ⇒ the cleaning and desinfection solution must only be used once and must not cause any sedimentation of water hardness and must not leed to limescale
- ⇒ removable cream container
- ⇒ the desinfection cleaner must terminate particular bacterial strains or reduce them to a for humans acceptable level

Additional to the DIN 10507 requirements SANO-Premium-Clean has the following characteristics:

- ⇒ low concentration: Just 3cl to 1,5 litre water
- ⇒ cleaning and desinfection in one rinsing process
- ⇒ residence time just 2 minutes
- ⇒ DVG proved
- ⇒ effective within low temperature range (max. 50°C)
  - prevention of boiler stain (limescale forming), milk-stone (protein forming) and of scalding
- ⇒ without chlorine - prevents all materials from damage
- ⇒ also eligible for coffee machines with milk foamer units. ice cream machines and surfaces

To increase the effect of the SANO-Premium-Clean the special cleaning nozzle is available. It optimizes the effect during the cleaning additionally.

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SANOMAT

Cream machine cleaning procedure

WEAR PROTECTIVE HAND WEAR WHEN CLEANING THE CREAM MACHINE. USE ONLY SANO-Premium-Clean. DO NOT RUN THE MACHINE DRY!

Step 1

Switch off green refrigeration button

Step 2

Remove lid

Step 3

Place bucket under nozzle

Step 4

Lift up suction pipe with a paper towel and wipe excess cream

Step 5

Press cream button three short times to empty pipe

Step 6

Remove cream container and suction pipe, wash both thoroughly under hot water

Step 7

Replace suction pipe

Step 8

Fill bucket with 1,5 litre HOT water (max. 50°C)

Step 9

Place bucket into machine

Step 10

Type RA: Push cleaning button. Pre-rinse program starts. / All other Types: Press several times button hand (intermittent flush) until bucket is empty

Step 11

Step 12

Remove garnishing nozzle

Step 13

Attach cleaning nozzle

Step 14

Clean garnishing nozzle under hot running water

Step 15

Step 16

Wash bowl in hot water, dry and place garnishing nozzle in bowl to avoid loss

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SANOMAT

Cream machine cleaning procedure

WEAR PROTECTIVE HAND WEAR WHEN CLEANING THE CREAM MACHINE. USE ONLY SANO DESINFEKT-PLUS. DO NOT RUN THE MACHINE DRY!

Step 17

Step 18

Fill bucket with 1,5 litre hot water (max. 50°C) and add 30 ml (3 cl) SANO-Premium-Clean

Step 19

Place bucket into machine

Step 20

Type RA: Press cleaning button. Auto-sanitising begins ...

Step 21

... all other types: Press several times button hand (intermittent flush) until bucket is empty

Step 22

Clean bucket and fill in 1,5 litre cold water

Step 23

Place into machine

Step 24

Type RA: Press cleaning button. Final rinse begins / All other types: Press several times ...

Step 25

... button hand (intermittent flush) until bucket is empty

Step 26

Change to cream nozzle

Step 27

Remove waste, clean bucket under hot water

Step 28

Soak a paper towel with Sano-Premium-Clean

Step 29

Step 30

Wipe all surfaces of cream machine, lid and worktop, dry with a new paper towel - replace bowl and lid

Step 31

Step 32

Switch green button on

Your SANOMAT is ready for use!

Safety Data Sheet

According to Regulation (EC) No 1907/2006

SANO-Premium-Clean

Revision: 2019-08-07 **Version:** 01.1

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

1.1 Product identifier
Trade name: SANO-Premium-Clean

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses:
For industrial use only.
AISE-P806 - Foam cleaner. Semi-automatic with venting process
AISE-P807 - Foam cleaner. Semi-automatic without venting process
AISE-P314 - Surface disinfectant. Manual process
AISE-P315 - Surface disinfectant. Spray and rinse manual process
AISE-P802 - Food process cleaner. Semi-closed cleaning process
Soaking bath. Manual process (AISE_CS_I01 & AISE_CS_I10)
Uses advised against: Uses other than those identified are not recommended

1.3 Details of the supplier of the safety data sheet
Vaihinger GmbH

Contact details
65520 Bad Camberg
Tel.: 06434/9405-0
Fax: 06434/940599
E-Mail: info@sanomat.com
www.sanomat com

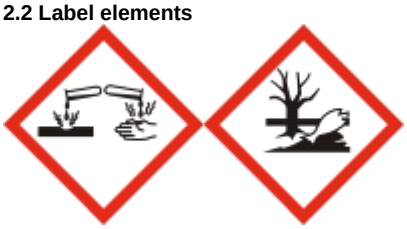
1.4 Emergency telephone number
Seek medical advice (show the label or safety data sheet where possible)

This International SDS is for information only. It does not meet all applicable regulatory requirements and does not replace the relevant statutory data sheet for your country.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Skin Irrit. 2 (H315)
Eye Dam. 1 (H318)
Aquatic Acute 1 (H400)
Aquatic Chronic 2 (H411)
Met. Corr. 1 (H290)

2.2 Label elements



Signal word: Danger.

Contains alkyl alcohol ethoxylate (Trideceth-8), N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Laurylamine Dipropylenediamine), tetrasodium ethylene diamine tetraacetate (Tetrasodium EDTA)

Hazard statements:
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H410 - Very toxic to aquatic life with long lasting effects.
H290 - May be corrosive to metals.

Precautionary statements:
P280 - Wear eye or 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.
P310 - Immediately call a POISON CENTRE, doctor or physician.

2.3 Other hazards
No other hazards known. The product does not meet the criteria for PBT or vPvB in accordance with Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
trisodium citrate	200-675-3	[1]	[1]	Not classified as hazardous		3-10
alkyl alcohol ethoxylate	[4]	69011-36-5	[4]	Acute Tox. 4 (H302) Eye Dam. 1 (H318)		3-10
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	219-145-8	2372-82-9	[6]	Acute Tox. 3 (H301) Skin Corr. 1B (H314) STOT RE 2 (H373) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		3-10
tetrasodium ethylene diamine tetraacetate	200-573-9	[1]	[1]	Acute Tox. 4 (H302) Acute Tox. 4 (H332) STOT RE 2 (H373) Eye Dam. 1 (H318)		1-3

Workplace exposure limit(s), if available, are listed in subsection 8.1.
[1] Exempted: ionic mixture. See Regulation (EC) No 1907/2006, Annex V, paragraph 3 and 4. This salt is potentially present, based on calculation, and included for classification and labelling purposes only. Each starting material of the ionic mixture is registered, as required.
[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.
[11] Substance of Very High Concern (SVHC)
[6] Exempted: biocidal active. See Article 15a 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
Inhalation: Get medical attention or advice if you feel unwell.
Skin contact: Take off immediately all contaminated clothing and wash it before reuse.
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. Get medical attention or advice if you feel unwell.
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 irritation.
Eye contact: Causes severe or permanent damage.
Ingestion: No known effects or symptoms in normal use.

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
Wear eye/face protection.

6.2 Environmental precautions
Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Dilute with plenty of water. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

6.3 Methods and material for containment and cleaning up
Dyke to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). 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. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing. Wash contaminated clothing before reuse. Avoid contact with eyes. Use only with adequate ventilation. Do not mix with other products. 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 from freezing. 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:

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 oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
trisodium citrate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	-	-	-	-
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	-	-	-	0.2
tetrasodium ethylene diamine tetraacetate	-	-	-	25

DNEL 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)
trisodium citrate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	-	-	-	-
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	-	-	-	0.91
tetrasodium ethylene diamine tetraacetate	-	-	-	-

DNEL 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)
trisodium citrate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	-	-	-	-
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	-	-	-	0.54
tetrasodium ethylene diamine tetraacetate	-	-	-	-

DNEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
trisodium citrate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	-	-	-	No data available

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	No data available	No data available	No data available	2.35
tetrasodium ethylene diamine tetraacetate	3	3	1.5	1.5

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
trisodium citrate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	-	-
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	No data available	No data available	No data available	0.7
tetrasodium ethylene diamine tetraacetate	1.2	1.2	0.6	-

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)
trisodium citrate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	-	-	-	-
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	0.001	0.0001	0.00015	1.33
tetrasodium ethylene diamine tetraacetate	2.2	0.22	1.2	43

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m³)
trisodium citrate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	-	-	-	-
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	8.5	0.85	45.34	-
tetrasodium ethylene diamine tetraacetate	-	-	0.72	-

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:
Covering activities such as filling and transfer of product to application equipment, flasks or buckets

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: Avoid direct contact and/or splashes where possible. Train personnel.

Personal protective equipment

Eye / face protection: Safety glasses or goggles (EN 166).

Hand protection: Repeated or prolonged contact: 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.

Respiratory protection: No special requirements under normal use conditions.

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 (%): 7

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.

Personal protective equipment

Eye / face protection: Safety glasses or goggles (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, Yellow
Odour: Product specific
Odour threshold: Not applicable
pH ≈ 10 (neat) — ISO 4316
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)
trisodium citrate	No data available		
alkyl alcohol ethoxylate	> 200	Method not given	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	No data available		
tetrasodium ethylene diamine tetraacetate	No data available	Non-experimental data	

Method / remark

Flammability (liquid): Not flammable.
Flash point (°C): > 93 °C — closed cup
Sustained combustion: Not applicable.
(UN Manual of Tests and Criteria, section 32, L.2)
Evaporation rate: Not determined — Not relevant to classification of this product
Flammability (solid, gas): Not applicable to liquids
Upper/lower flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Method / remark

Vapour pressure: Not determined — See substance data

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
trisodium citrate	No data available		
alkyl alcohol ethoxylate	Negligible	Method not given	20-25
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	No data available		
tetrasodium ethylene diamine tetraacetate	0.0000000002	Read across	25

Method / remark

Vapour density: Not determined — Not relevant to classification of this product
Relative density: ≈ 1.08 (20 °C) — OECD 109 (EU A.3)
Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
trisodium citrate	No data available		
alkyl alcohol ethoxylate	Soluble	Method not given	20
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	Soluble		
tetrasodium ethylene diamine tetraacetate	500	Method not given	20

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

Method / remark

Autoignition temperature: Not determined
Decomposition temperature: Not applicable.
Viscosity: Not determined
Explosive properties: Not explosive.
Oxidising properties: Not oxidising.

9.2 Other information

Surface tension (N/m): Not determined
Corrosion to metals: Corrosive

Not relevant to classification of this product
Weight of evidence

Substance data, dissociation constant, if 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
Reacts with acids.

10.6 Hazardous decomposition products
None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture data:.

Relevant calculated ATE(s):
ATE - Oral (mg/kg): >2000
ATE - Inhalatory, mists (mg/l): >5

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)
trisodium citrate		6400		OECD 401 (EU B.1)	
alkyl alcohol ethoxylate	LD_{50}	> 300-2000	Rat	OECD 423 (EU B.1 tris)	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	LD_{50}	261	Rat	Method not given	
tetrasodium ethylene diamine tetraacetate	LD_{50}	1780	Rat	OECD 401 (EU B.1)	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
trisodium citrate		No data available		OECD 402 (EU B.3)	
alkyl alcohol ethoxylate	LD_{50}	> 2000	Rabbit	Method not given	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	LD_{50}	> 2000	Rat	OECD 402 (EU B.3)	
tetrasodium ethylene diamine tetraacetate	LD_{50}	> 5000	Rabbit	Method not given	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
trisodium citrate		No data available			
alkyl alcohol ethoxylate		No data available			
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine		No data available			
tetrasodium ethylene diamine tetraacetate	LC_{50}	≥ 1-5 (dust)	Rat	OECD 403 (EU B.2)	6

Irritation and corrosivity
Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
trisodium citrate	No data available			
alkyl alcohol ethoxylate	Not irritant	Rabbit	OECD 404 (EU B.4)	

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	Corrosive	Rabbit	OECD 404 (EU B.4)	4 hour(s)
tetrasodium ethylene diamine tetraacetate	Not irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
trisodium citrate	No data available			
alkyl alcohol ethoxylate	Severe damage	Rabbit	Method not given	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	No data available			
tetrasodium ethylene diamine tetraacetate	Severe damage		Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
trisodium citrate	No data available			
alkyl alcohol ethoxylate	No data available			
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
trisodium citrate	No data available			
alkyl alcohol ethoxylate	Not sensitising	Guinea pig	Method not given	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	
tetrasodium ethylene diamine tetraacetate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
trisodium citrate	No data available			
alkyl alcohol ethoxylate	No data available			
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	No data available			
tetrasodium ethylene diamine tetraacetate	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)
trisodium citrate	No data available		No data available	
alkyl alcohol ethoxylate	No evidence of genotoxicity, negative test results	Method not given	No evidence of genotoxicity, negative test results	Method not given
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476	No data available	
tetrasodium ethylene diamine tetraacetate	No evidence for mutagenicity, negative test results	Method not given	No evidence of genotoxicity, negative test results	Method not given

Carcinogenicity

Ingredient(s)	Effect
trisodium citrate	No data available
alkyl alcohol ethoxylate	No evidence for carcinogenicity, weight-of-evidence
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	No data available
tetrasodium ethylene diamine tetraacetate	No evidence for carcinogenicity, weight-of-evidence

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
trisodium citrate			No data available				
alkyl alcohol ethoxylate	NOAEL	Teratogenic effects	> 50	Rat	Not known		No known significant effects or critical hazards
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine			No data available				No evidence for reproductive toxicity
tetrasodium ethylene diamine tetraacetate			No data available				No evidence for reproductive toxicity

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
trisodium citrate		No data available				
alkyl alcohol ethoxylate		No data available				

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
trisodium citrate		No data available				
alkyl alcohol ethoxylate		No data available				
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine		No data available				
tetrasodium ethylene diamine tetraacetate		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
trisodium citrate		No data available				
alkyl alcohol ethoxylate		No data available				
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine		No data available				
tetrasodium ethylene diamine tetraacetate		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
trisodium citrate			No data available					
alkyl alcohol ethoxylate	Oral	NOAEL	50	Rat	Method not given	24 month(s)	Effects on organ weights	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine			No data available					
tetrasodium ethylene diamine tetraacetate			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
trisodium citrate	No data available
alkyl alcohol ethoxylate	Not applicable
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	Not applicable
tetrasodium ethylene diamine tetraacetate	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
trisodium citrate	No data available
alkyl alcohol ethoxylate	Not applicable
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	Kidneys
tetrasodium ethylene diamine tetraacetate	Respiratory tract

Aspiration hazard
Substances with an aspiration hazard (H304), if any, are listed in section 3. If relevant, see section 9 for dynamic viscosity and relative density of the product.

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

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)
trisodium citrate		10		Weight of evidence	
alkyl alcohol ethoxylate	LC_{50}	1 - 10	*Cyprinus carpio*	OECD 203 (EU C.1)	96

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	LC_{50}	0.45	*Lepomis macrochirus*	OPP 72-1, static (EPA)	96
tetrasodium ethylene diamine tetraacetate	LC_{50}	> 100	*Lepomis macrochirus*	OPP 72-1, static (EPA)	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
trisodium citrate		> 50		Weight of evidence	
alkyl alcohol ethoxylate	EC_{50}	1 - 10	*Daphnia magna Straus*	OECD 202, static	48
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	EC_{50}	0.073	*Daphnia magna Straus*	EPA-OPPTS 850.1010 OECD 202 (EU C.2)	48
tetrasodium ethylene diamine tetraacetate	EC_{50}	140	*Daphnia magna Straus*	DIN 38412, Part 11	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
trisodium citrate		No data available		Weight of evidence	
alkyl alcohol ethoxylate	EC_{50}	1 - 10	*Desmodesmus subspicatus*	OECD 201, static	72
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	$E_r C_{50}$	0.054	*Pseudokirchneriella subcapitata*	EPA OPPTS 850.5400	96
tetrasodium ethylene diamine tetraacetate	EC_{50}	> 100	*Scenedesmus obliquus*	88/302/EEC, Part C, static	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
trisodium citrate		No data available			
alkyl alcohol ethoxylate		No data available			-
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine		No data available			-
tetrasodium ethylene diamine tetraacetate		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
trisodium citrate		No data available			
alkyl alcohol ethoxylate	EC_{10}	> 10000	*Activated sludge*	DIN 38412 / Part 8	17 hour(s)
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	EC_{50}	18	*Activated sludge*	OECD 209	3 hour(s)
tetrasodium ethylene diamine tetraacetate	EC_{20}	> 500	*Activated sludge*	OECD 209	0.5 hour(s)

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
trisodium citrate		No data available				
alkyl alcohol ethoxylate		No data available				
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	> 25.7	*Brachydanio rerio*	OECD 210	35 day(s)	

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
trisodium citrate		No data available				
alkyl alcohol ethoxylate		No data available				
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	NOEC	0.024	*Daphnia magna*	OECD 211	21 day(s)	
tetrasodium ethylene diamine tetraacetate	NOEC	25	*Daphnia magna*	OECD 211	21 day(s)	

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

Ingredient(s)	Endpoint	Value (mg/kg dw	Species	Method	Exposure time (days)	Effects observed

		sediment)				
trisodium citrate		No data available				
alkyl alcohol ethoxylate		No data available			-	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine		No data available			-	
tetrasodium ethylene diamine tetraacetate		No data 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
alkyl alcohol ethoxylate	NOEC	220	*Eisenia fetida*		-	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	LD_{50}	> 1000	*Eisenia fetida*	OECD 207	14	
tetrasodium ethylene diamine tetraacetate	LD_{50}	156	*Eisenia fetida*	OECD 207	14	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol ethoxylate	NOEC	10	*Lepidium sativum*	OECD 208	-	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine		No data available			-	
tetrasodium ethylene diamine tetraacetate	NOEC	0.25 - 1.25			21	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol ethoxylate		No data available			-	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine		No data available			-	
tetrasodium ethylene diamine tetraacetate		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol ethoxylate		No data available			-	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine		No data available			-	
tetrasodium ethylene diamine tetraacetate		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol ethoxylate		No data available			-	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	NOEC	1000			28	
tetrasodium ethylene diamine tetraacetate		No data available			-	

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT_{50}	Method	Evaluation
trisodium citrate				OECD 301E	Readily biodegradable
alkyl alcohol ethoxylate	Activated sludge, aerobe	CO_2 production	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine		Oxygen depletion	79 % in 28 day(s)	OECD 301D	Readily biodegradable
tetrasodium ethylene diamine tetraacetate					Not readily biodegradable.

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
trisodium citrate	No data available			
alkyl alcohol ethoxylate	-		No bioaccumulation expected	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	-0.66		No bioaccumulation expected	
tetrasodium ethylene diamine tetraacetate	-13	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
trisodium citrate	No data available				
alkyl alcohol ethoxylate	-			No bioaccumulation expected	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	No data available				
tetrasodium ethylene diamine tetraacetate	1.8	*Lepomis macrochirus*	Method not given	Low potential for bioaccumulation	

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
trisodium citrate	No data available				
alkyl alcohol ethoxylate	No data available				Immobile in soil or sediment
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	No data available				
tetrasodium ethylene diamine tetraacetate	No data available				Adsorption to solid soil phase is not expected

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 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 29* - detergents containing dangerous substances.

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: 1760

14.2 UN proper shipping name:

Corrosive liquid, n.o.s. (trisodium citrate , N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine)

14.3 Transport hazard class(es):

Transport hazard class (and subsidiary risks): 8

14.4 Packing group: III

14.5 Environmental hazards:

Environmentally hazardous: Yes

Marine pollutant: Yes

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:

ADR

Classification code: C9
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

EU regulations:
• Regulation (EC) No. 1907/2006 - REACH
• Regulation (EC) No 1272/2008 - CLP
• Regulation (EC) No. 648/2004 - Detergents regulation
• Regulation (EU) No 528/2012 on biocidal products

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

UFI: 8PFE-40HA-P00H-U6EN

Ingredients according to EC Detergents Regulation 648/2004

non-ionic surfactants	5 - 15 %
EDTA and salts thereof	< 5 %
disinfectants	

The surfactant(s) contained in this preparation complies(comply) 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.

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: MS1004156 **Version:** 01.1 **Revision:** 2019-08-07

Reason for revision:
This data sheet contains changes from the previous version in section(s):, 1, 3, 6, 7, 8, 9, 11, 12, 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.

Full text of the H and EUH phrases mentioned in section 3:
• H301 - Toxic if swallowed.
• H302 - Harmful if swallowed.
• H314 - Causes severe skin burns and eye damage.
• H318 - Causes serious eye damage.
• H332 - Harmful if inhaled.
• H373 - May cause damage to organs through prolonged or repeated exposure.
• H400 - Very toxic to aquatic life.
• H410 - Very toxic to aquatic life with long lasting effects.

Abbreviations and acronyms:
• AISE - The international Association for Soaps, Detergents and Maintenance Products
• DNEL - Derived No Effect Limit
• EUH - CLP Specific hazard statement
• PBT - Persistent, Bioaccumulative and Toxic
• PNEC - Predicted No Effect Concentration
• REACH number - REACH registration number, without supplier specific part
• vPvB - very Persistent and very Bioaccumulative
• ATE - Acute Toxicity Estimate
• LD50 - Lethal Dose, 50% / Median Lethal dose
• LC50 - Lethal Concentration, 50% / Median Lethal Concentration
• EC50 - effective concentration, 50%
• NOEL - No observed effect level
• NOAEL - No observed adverse effect level
• OECD - Organization for Economic Cooperation and Development

End of Safety Data Sheet