

Suma Silver D8

Hazards for humans and the environment



Contains thiourea (Thiourea)

Signal word:

Hazard statements:

Warning:

H319 - Causes serious eye irritation.

H351 - Suspected of causing cancer.

H361 - Suspected of damaging fertility or the unborn child.

H412 - Harmful to aquatic life with long lasting effects.

Prevention and conduct



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:

No special requirements under normal use conditions.

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:

Chemical-resistant protective gloves (EN 374). Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.



Body protection:

Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).

Respiratory protection:

No special requirements under normal use conditions.

Environmental exposure controls:

No special requirements under normal use conditions.

Emergency procedure



Suitable extinguishing media

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

Environmental precautions

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

Methods for 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.

First aid measures



Inhalation:

Get medical attention or advice if you feel unwell.

Skin contact:

Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice or attention.

Eye contact:

Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation occurs and persists, get medical attention.



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.

Always check the product labels and consult the Safety Data Sheet for details. 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.

MS1004188



Safety Data Sheet

According to Regulation (EC) No 1907/2006

Suma Silver D8

Revision: 2022-07-24

Version: 01.1

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

1.1 Product identifier

Trade name: Suma Silver D8

UFI: M3JE-90UF-800C-CRRF

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

Product use:

Metal cleaning agent.

For professional use only.

Uses advised against:

Uses other than those identified are not recommended.

SWED - Sector-specific worker exposure description :

AISE_SWED_PW_4_2

AISE_SWED_PW_19_2

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, 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@diversey.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

Carc. 2 (H351)

Repr. 2 (H361)

Eye Irrit. 2 (H319)

Aquatic Chronic 3 (H412)

2.2 Label elements



Signal word: Warning.

Contains thiourea (Thiourea)

Hazard statements:

H319 - Causes serious eye irritation.

H351 - Suspected of causing cancer.

H361 - Suspected of damaging fertility or the unborn child.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements:

P280 - Wear protective gloves, protective clothing and eye or face protection.

2.3 Other hazards

No other hazards known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
thiourea	200-543-5	62-56-6	-	Carc. 2 (H351) Repr. 2 (H361) Acute Tox. 4 (H302) Aquatic Chronic 2 (H411)		3-10
citric acid	201-069-1	-	01-2119457026-42	STOT SE 3 (H335) Eye Irrit. 2 (H319)		1-3
phosphoric acid	231-633-2	7664-38-2	01-2119485924-24	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Eye Dam. 1 (H318) Met. Corr. 1 (H290)		1-3
Alcohols, C10-16, ethoxylated (7-<15 EO)	[4]	68002-97-1	[4]	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)		1-3

Specific concentration limits

phosphoric acid:

- Eye Dam. 1 (H318) >= 25% > Eye Irrit. 2 (H319) >= 10%
- Skin Corr. 1B (H314) >= 25% > Skin Irrit. 2 (H315) >= 10%

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 exposed or concerned: Get medical advice or attention.

Inhalation:

Get medical attention or advice if you feel unwell.

Skin contact:

Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice or attention.

Eye contact:

Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation occurs and persists, get medical attention.

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:

Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

Skin contact:

Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

Eye contact:

Causes severe irritation.

Ingestion:

Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

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

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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. Do not allow to enter the ground/soil. 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. Do not mix with other products unless advised by Diversey. Wash hands before breaks and at the end of workday. Store used personal protective equipment separately. Obtain special instructions before use. Avoid contact with eyes. 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.

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/m ³	2 mg/m ³

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 (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
thiourea	No data available	No data available	No data available	No data available
citric acid	-	-	-	-
phosphoric acid	-	-	-	0.1
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	-	-

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)
thiourea	No data available	No data available	No data available	No data available
citric acid	No data available	-	No data available	-
phosphoric acid	No data available	-	No data available	-
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	No data available	-

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)
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thiourea	No data available	No data available	No data available	No data available
citric acid	No data available	-	No data available	-
phosphoric acid	No data available	-	No data available	-
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	No data available	-

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
thiourea	No data available	No data available	No data available	No data available
citric acid	-	-	-	-
phosphoric acid	-	-	2.92	1
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	-	-

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
thiourea	No data available	No data available	No data available	No data available
citric acid	-	-	-	-
phosphoric acid	-	-	0.73	-
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	-	-

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)
thiourea	No data available	No data available	No data available	No data available
citric acid	0.44	0.044	-	> 1000
phosphoric acid	-	-	-	-
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	-	-

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m³)
thiourea	No data available	No data available	No data available	No data available
citric acid	34.6	3.46	33.1	-
phosphoric acid	-	-	-	-
Alcohols, C10-16, ethoxylated (7-<15 EO)	-	-	-	-

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: No special requirements under normal use conditions.
Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

REACH use scenarios considered for the undiluted product:

	SWED - Sector-specific worker exposure description	LCS	PROC	Duration (min)	ERC
Manual application	AISE_SWED_PW_19_2	PW	PROC 19	480	ERC8a
Automatic application in a dedicated system	AISE_SWED_PW_4_2	PW	PROC 4	480	ERC8a

Personal protective equipment**Eye / face protection:****Hand protection:**

Safety glasses or goggles (EN 166).

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:

Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).

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

Physical state: Liquid

Colour: Clear , Orange

Odour: Product specific

Odour threshold: Not applicable

Melting point/freezing point (°C): Not determined

Initial boiling point and boiling range (°C): Not determined

Method / remark

Not relevant to classification of this product
See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
thiourea	Product decomposes before boiling		
citric acid	No data available		
phosphoric acid	158	Method not given	1013
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available		

Method / remark

Flammability (solid, gas): Not applicable to liquids

Flammability (liquid): Not flammable.

Flash point (°C): Not applicable.

Sustained combustion: Not applicable.

(UN Manual of Tests and Criteria, section 32, L.2)

Lower and upper explosion limit/flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Method / remark

Autoignition temperature: Not determined

Decomposition temperature: Not applicable.

pH: =< 2 (neat)

Kinematic viscosity: Not determined

Solubility in / Miscibility with water: Fully miscible

ISO 4316

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
thiourea	140		
citric acid	1630	Method not given	
phosphoric acid	Soluble		
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available		

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)
thiourea	333		
citric acid	No data available		
phosphoric acid	4	Method not given	20
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available		

Method / remark

Relative density: ≈ 1.03 (20 °C)

Relative vapour density: -.

Particle characteristics: No data available.

OECD 109 (EU A.3)
Not relevant to classification of this product
Not applicable to liquids.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties: Not explosive.

Oxidising properties: Not oxidising.

Corrosion to metals: Not corrosive

9.2.2 Other safety characteristics

Acid reserve: ≈ -0.6 (g NaOH / 100g; pH=4)

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

Keep away from products containing chlorine-based bleaching agents or sulphites.

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

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 (mg/kg)
thiourea	LD ₅₀	1750	Rat	OECD 401 (EU B.1)		11000
citric acid	LD ₅₀	5400-11700	Rat	Method not given		Not established
phosphoric acid	LD ₅₀	> 300-5000	Rat	OECD 423 (EU B.1 tris)		130000
Alcohols, C10-16, ethoxylated (7-<15 EO)	LD ₅₀	≥ 1000		Read across		100000

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE (mg/kg)
thiourea	LD ₅₀	2800	Rat	Method not given OECD 402 (EU B.3)		Not established
citric acid	LD ₅₀	> 2000	Rat	Method not given		Not established
phosphoric acid	LD ₅₀	2740	Rabbit	Method not given		Not established
Alcohols, C10-16, ethoxylated (7-<15 EO)	LD ₅₀	> 2000		Method not given		Not established

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
thiourea	LC ₅₀	> 0.195 (mist) No mortality observed	Rat	OECD 403 (EU B.2)	4
citric acid		No data available			
phosphoric acid	LC ₅₀	850	Rat	Method not given	2
Alcohols, C10-16, ethoxylated (7-<15 EO)		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)
thiourea	Not established	Not established	Not established	Not established
citric acid	Not established	Not established	Not established	Not established
phosphoric acid	Not established	Not established	Not established	Not established
Alcohols, C10-16, ethoxylated (7-<15 EO)	Not established	Not established	Not established	Not established

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
thiourea	No data available			
citric acid	Not irritant	Rabbit	OECD 404 (EU B.4)	
phosphoric acid	Corrosive	Rabbit	OECD 404 (EU B.4)	
Alcohols, C10-16, ethoxylated (7-<15 EO)	Not irritant	Rabbit	Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
thiourea	Not corrosive or irritant			
citric acid	Irritant	Rabbit	OECD 405 (EU B.5)	
phosphoric acid	Severe damage	Rabbit	Method not given	
Alcohols, C10-16, ethoxylated (7-<15 EO)	Severe damage	Rabbit	Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
thiourea	No data available			
citric acid	No data available			
phosphoric acid	No data available			
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
thiourea	No data available			
citric acid	Not sensitising	Guinea pig	Method not given	
phosphoric acid	Not sensitising	Human	Human experience	
Alcohols, C10-16, ethoxylated (7-<15 EO)	Not sensitising	Guinea pig	Method not given	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
thiourea	No data available			
citric acid	No data available			
phosphoric acid	No data available			
Alcohols, C10-16, ethoxylated (7-<15 EO)	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)
thiourea	No data available		No data available	
citric acid	No data available		No evidence of genotoxicity, negative test results	Method not given
phosphoric acid	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476 (Mouse lymphoma)	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

Carcinogenicity

Ingredient(s)	Effect
thiourea	Limited evidence of a carcinogenic effect.
citric acid	No evidence for carcinogenicity, negative test results
phosphoric acid	No data available
Alcohols, C10-16, ethoxylated (7-<15 EO)	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
thiourea		Teratogenic effects	No data available				Indications of possible teratogenicity
citric acid			No data available				No evidence for reproductive toxicity
phosphoric acid	NOAEL	Developmental toxicity	410	Rat	OECD 422, oral	10 day(s)	No evidence for reproductive toxicity No evidence for developmental toxicity
Alcohols, C10-16, ethoxylated (7-<15 EO)			No data available		Literature		No evidence for teratogenic effects 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
thiourea		No data available				
citric acid		No data available				
phosphoric acid	NOAEL	250	Rat	OECD 422, oral		
Alcohols, C10-16, ethoxylated (7-<15 EO)		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
thiourea		No data available				
citric acid		No data available				
phosphoric acid		No data available				
Alcohols, C10-16, ethoxylated (7-<15 EO)		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
thiourea		No data available				
citric acid		No data available				
phosphoric acid		No data available				
Alcohols, C10-16, ethoxylated (7-<15 EO)		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
thiourea			No data available					
citric acid			No data available					
phosphoric acid			No data available					
Alcohols, C10-16, ethoxylated (7-<15 EO)			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
thiourea	Not applicable
citric acid	No data available
phosphoric acid	No data available
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
thiourea	No data available
citric acid	No data available

phosphoric acid	No data available
Alcohols, C10-16, ethoxylated (7-<15 EO)	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)
thiourea	LC ₅₀	> 110	<i>Fish</i>	OECD 203 (EU C.1)	96
citric acid	LC ₅₀	440	<i>Leuciscus idus</i>	Method not given	48
phosphoric acid	LC ₅₀	138	<i>Gambusia affinis</i>	Method not given	96
Alcohols, C10-16, ethoxylated (7-<15 EO)	LC ₅₀	> 1-10	<i>Brachydanio rerio</i>	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
thiourea	EC ₅₀	16	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
citric acid	EC ₅₀	1535	<i>Daphnia magna Straus</i>	Method not given	24
phosphoric acid	EC ₅₀	> 100	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
Alcohols, C10-16, ethoxylated (7-<15 EO)	EC ₅₀	> 1-10	<i>Daphnia magna Straus</i>	Method not given	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
thiourea	EC ₅₀	> 110	<i>Not specified</i>	OECD 201 (EU C.3)	
citric acid	LC ₅₀	425	<i>Scenedesmus quadricauda</i>	Method not given	168
phosphoric acid	EC ₅₀	> 100	<i>Desmodesmus subspicatus</i>	OECD 201 (EU C.3)	72
Alcohols, C10-16, ethoxylated (7-<15 EO)	EC ₅₀	> 1-10	<i>Desmodesmus subspicatus</i>	Method not given	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
thiourea		No data available			
citric acid		No data available			
phosphoric acid		No data available			
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
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thiourea		No data available			
citric acid	EC ₅₀	> 10000	<i>Pseudomonas putida</i>	Method not given	16 hour(s)
phosphoric acid	EC ₅₀	270	<i>Activated sludge</i>	Method not given	
Alcohols, C10-16, ethoxylated (7-<15 EO)	EC ₅₀	140	<i>Activated sludge</i>	Method not given	

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
thiourea		No data available				
citric acid		No data available				
phosphoric acid		No data available				
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
thiourea		No data available				
citric acid		No data available				
phosphoric acid		No data available				
Alcohols, C10-16, ethoxylated (7-<15 EO)	EC ₁₀	> 0.1-1	<i>Daphnia sp.</i>	OECD 211		

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
thiourea		No data available				
citric acid		No data available				
phosphoric acid		No data available				
Alcohols, C10-16, ethoxylated (7-<15 EO)		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
citric acid		No data available				
phosphoric acid		No data available				

Terrestrial toxicity - plants, if available:

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

Terrestrial toxicity - birds, if available:

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

Terrestrial toxicity - beneficial insects, if available:

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

Abiotic degradation - hydrolysis, if available:

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

Abiotic degradation - other processes, if available:

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

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
thiourea		Oxygen depletion	0% in 34 day(s)	OECD 301C	Not readily biodegradable.
citric acid			97 % in 28 day(s)	OECD 301B	Readily biodegradable
phosphoric 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

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT ₅₀	Method	Evaluation
citric acid					No data available
phosphoric acid					No data available

Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT ₅₀	Method	Evaluation
citric acid					No data available
phosphoric acid					No data available

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
thiourea	-1.14	Method not given	No bioaccumulation expected	
citric acid	-1.72		No bioaccumulation expected	
phosphoric acid	No data available		No bioaccumulation expected	
Alcohols, C10-16, ethoxylated (7-<15 EO)	3.55	QSAR	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
thiourea	No data available				
citric acid	No data available				

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phosphoric acid	No data available			No bioaccumulation expected	
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available				

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K _{oc}	Desorption coefficient Log K _{oc} (des)	Method	Soil/sediment type	Evaluation
thiourea	No data available				High potential for mobility in soil
citric acid	No data available				Potential for mobility in soil, soluble in water
phosphoric acid	No data available				Potential for mobility in soil, soluble in water
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available				

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:** Non-dangerous goods**14.2 UN proper shipping name:** Non-dangerous goods**14.3 Transport hazard class(es):** Non-dangerous goods**14.4 Packing group:** Non-dangerous goods**14.5 Environmental hazards:** Non-dangerous goods**14.6 Special precautions for user:** Non-dangerous goods**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:** Non-dangerous goods**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)
- 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, anionic surfactants

< 5 %

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

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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: MS1004188

Version: 01.1

Revision: 2022-07-24

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):, 2, 4, 6, 7, 9, 10, 12, 11, 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:

- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.
- H351 - Suspected of causing cancer.
- H361 - Suspected of damaging fertility or the unborn child.
- H411 - Toxic to aquatic life with long lasting effects.
- H412 - Harmful to aquatic life with long lasting effects.

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

End of Safety Data Sheet