

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

1.1. Product identifier

Product form : Mixture
Product name : Spiroplus Lime Cleaner
UFI : R21C-UHCA-MC02-0V8Q
Product code : 4000014
Product group : Water treatment

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

1.2.1. Relevant identified uses

Main use category : Professional use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Spirotech BV
Churchill-laan 52
5705 BK Helmond
T 0031 492 57 89 89
www.spirotech.com

1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
Netherlands	Nationaal Vergiftigingen Informatie Centrum	Huispostnummer B.00.118 Postbus 85500 3508 GA Utrecht	+31 88 755 80 00	Only for the purpose of informing medical personnel in cases of acute intoxications (24 hours a day, 7 days a week)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 1, Sub-Category 1A H314
Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger
Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.
Precautionary statements (CLP) : P280 - Wear protective gloves, protective clothing, face protection, eye protection.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P363 - Wash contaminated clothing before reuse.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Citric Acid (5949-29-1)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Citric Acid (5949-29-1)

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sulphamic acid	CAS-No.: 5329-14-6 EC-No.: 226-218-8 EC Index-No.: 016-026-00-0	5 – 15	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Aquatic Chronic 3, H412
Citric Acid	CAS-No.: 5949-29-1 EC-No.: 201-069-1 REACH-no: 01-2119457026-42	5 – 15	Eye Irrit. 2, H319

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Take to hospital.
First-aid measures after skin contact	: Take off contaminated clothing. Rinse skin with water/shower. Transport to hospital immediately.
First-aid measures after eye contact	: First prolonged rinsing with water (contact lenses to be removed if this is easily done), then take to a doctor.
First-aid measures after ingestion	: Rinse mouth out with water. Do NOT induce vomiting. Transport to hospital immediately.

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

Symptoms/effects after inhalation	: Unconsciousness. Dizziness. Headache. Nausea. Drowsiness.
Symptoms/effects after skin contact	: Pungent. Severe burns. Redness. Pain.
Symptoms/effects after eye contact	: Pungent. Pain. Redness. Blurred vision.

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Symptoms/effects after ingestion : Caustic, lack of breath, vomiting, blisters on lips and tongue, burning pain in mouth and throat, gullet and stomach.

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

None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray, powder, foam, CO2.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.
Explosion hazard : None known.

5.3. Advice for firefighters

Precautionary measures fire : No special precautions required.
Firefighting instructions : No specific firefighting instructions required.
Protection during firefighting : No specific measures are necessary.
Other information : No specific firefighting instructions required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not touch spilled material. Remove contaminated clothing and shoes. Do not breathe vapour. Do not breathe spray. Do not breathe dust.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Absorb the product onto porous material.

6.4. Reference to other sections

Reference to other sections (8, 13).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Handle carefully. Avoid spillage.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed and in well ventilated place. Keep out of frost.
Packaging materials : Packing material to avoid Metal. Suitable packing materials: Plastic.

7.3. Specific end use(s)

Additive.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

The level of protection and types of measures depend on workplace conditions. Adequate ventilation must be provided so that exposure limits are not exceeded. For more information, see section 7.

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Safety glasses. Protective clothing.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses. Face-shield

8.2.2.2. Skin protection

Skin and body protection:

Impermeable clothing

Hand protection:

Viton gloves. Breakthrough time: > 480 Min, (EN 374). Layer thickness : 0,70 mm. Always wash hands after handling the product

8.2.2.3. Respiratory protection

Respiratory protection:

Ensure adequate air ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Universel mask (ABEK)

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Comply with relevant environmental regulations limiting discharges to air, water and soil. Protect the environment by applying proper control measures to prevent or reduce releases. For more information, see sections 6 and 13.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: Characteristic.
Odour threshold	: Not applicable
Melting point	: 0 °C /.
Freezing point	: Not available
Boiling point	: 100 °C
Flammability	: Not applicable.
Explosive properties	: Not applicable.
Oxidising properties	: Not applicable.
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: /.
Auto-ignition temperature	: /.
Decomposition temperature	: /.
pH	: 1.5 @ 20°C
pH solution	: /.
Viscosity, kinematic	: 1 mm ² /s @ 20°C.
Viscosity, dynamic	: 1 mPa·s @ 20°C.
Solubility	: Water: Completely soluble
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 2332 Pa @ 20°C.
Vapour pressure at 50°C	: Not available
Density	: 1.081 kg/l @ 20°C.
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable.
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1)	: 0.3 @ 20°C
VOC content	: 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable at ambient temperature and under normal conditions of use.

10.2. Chemical stability

Extremely high or low temperatures.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

10.5. Incompatible materials

Bases. Oxidizing agents.

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10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified
Additional information : See Heading 3 (Information on ingredients).

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ATE CLP (oral)	2000 mg/kg bodyweight
ATE CLP (dermal)	2000 mg/kg

Sulphamic acid (5329-14-6)

LD50 oral rat	3160 mg/kg
LD50 dermal rabbit	2000 mg/kg

Citric Acid (5949-29-1)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat	> 50 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns.
pH: 1.5 @ 20°C

Citric Acid (5949-29-1)

pH	2.2 (10 gr/L) @ 20°C.
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Serious eye damage/irritation : Assumed to cause serious eye damage
pH: 1.5 @ 20°C

Citric Acid (5949-29-1)

pH	2.2 (10 gr/L) @ 20°C.
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Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

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Viscosity, kinematic	1 mm ² /s @ 20°C.
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Citric Acid (5949-29-1)

Viscosity, kinematic	Not applicable.
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11.2. Information on other hazards

No additional information available

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: No data available.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Sulphamic acid (5329-14-6)	
LC50 - Fish [1]	70 mg/l
EC50 - Crustacea [1]	71.6 ml/l 24h

Citric Acid (5949-29-1)	
LC50 - Fish [1]	440 – 760 mg/l (48h)
LC50 - Other aquatic organisms [1]	1535 mg/l EC50 24h - Daphnia magna [mg/l]
EC50 - Crustacea [1]	1535 mg/l (24h)

12.2. Persistence and degradability

Spiroplus Lime Cleaner	
Persistence and degradability	No data available.

Sulphamic acid (5329-14-6)	
Persistence and degradability	Rapidly degradable

Citric Acid (5949-29-1)	
Persistence and degradability	Rapidly degradable
Biodegradation	97 % (28d)

12.3. Bioaccumulative potential

Spiroplus Lime Cleaner	
Bioaccumulative potential	No data available.

Sulphamic acid (5329-14-6)	
Bioaccumulative potential	Not applicable.

Citric Acid (5949-29-1)	
Bioconcentration factor (BCF REACH)	Not applicable.
Partition coefficient n-octanol/water (Log Pow)	-1.72

12.4. Mobility in soil

Spiroplus Lime Cleaner	
Mobility in soil	Completely soluble
Ecology - soil	WGK 1.

Sulphamic acid (5329-14-6)	
Ecology - soil	No data available.

Citric Acid (5949-29-1)	
Ecology - soil	No data available.

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12.5. Results of PBT and vPvB assessment

Component

Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Citric Acid (5949-29-1)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Citric Acid (5949-29-1)

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Dispose of in accordance with relevant local regulations.
Waste treatment methods : In case the undiluted product is discharged accidentally, neutralize to pH 7.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.

SECTION 14: Transport information

In accordance with ADR

14.1. UN number or ID number

UN-No. (ADR) : UN 3265

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Corrosive liquid, acidic, organic, n.o.s.
Transport document description (ADR) : UN 3265 Corrosive liquid, acidic, organic, n.o.s. (mixture with SULPHAMIC ACID), 8, III, (E)

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 8
Danger labels (ADR) : 8



14.4. Packing group

Packing group (ADR) : III

14.5. Environmental hazards

Dangerous for the environment : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

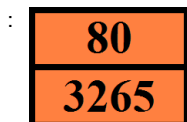
Hazard identification number (Kemler No.) : 80

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Orange plates



Tunnel restriction code (ADR)

: E

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

VOC Directive (2004/42)

VOC content : 0 %

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Netherlands

ABM category : A(4) - low hazard for aquatic organisms, may have longterm hazardous effects in aquatic environment

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen – : None of the components are listed

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

15.2. Chemical safety assessment

No data available

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SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
8.2			
11			
16			

Full text of H- and EUH-statements:	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.