



elma lab clean S20 (ELC S20)

Print date 08.05.2025
Revision date 08.05.2025
Version 1.7 (en)
replaces version of 23.08.2022 (1.6)

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

1.1 Product identifier

Trade name/designation elma lab clean S20 (ELC S20)
Unique Formula Identifier UFI: 4140-Y06R-C00N-WQJW
Product category PC-CLN-OTH Other cleaning, care and maintenance products (excludes biocidal products)

Hazard components

phosphoric acid ...%, isotridecanol, ethoxylated, C10- fatty alcohol, alkoxyated

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

Sector of uses [SU]

SU20 Health services
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU3 Industrial uses

Process categories [PROC]

PROC7 Industrial spraying
PROC8a Transfer of substance or mixture (charging and discharging) at non- dedicated facilities
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC13 Treatment of articles by dipping and pouring
PROC11 Non industrial spraying

Environmental release categories [ERC]

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)

Product Categories [PC]

PC35 Washing and cleaning products

Use of the substance/mixture

Aqueous, acidic, foam-inhibited cleaning concentrate for ultrasonic, immersion and splash cleaning of acid-resistant parts and medical devices.

1.3 Details of the supplier of the safety data sheet

Supplier

Elma Schmidbauer GmbH
Gottlieb-Daimler-Str. 17
D-78224 Singen (Htwl.)
Telephone +49 7731 882-0
Telefax +49 7731 882-266
E-mail info@elma-ultrasonic.com
Website www.elma-ultrasonic.com

Department responsible for information:
Chemie/Labor: Email: chemlab@elma-ultrasonic.com

1.4 Emergency telephone number

Vergiftungs-Informations-Zentrale Freiburg (Sprache/Language: DE, +49 761 19240
EN)

*** SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture

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

Classification procedure

| | |
|---------------------|--|
| Met. Corr. 1, H290 | Expert judgement and weight of evidence determination. |
| Acute Tox. 4, H302 | Calculation method. |
| Skin Corr. 1B, H314 | Calculation method. |
| Eye Dam. 1, H318 | Calculation method. |



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Hazard statements for physical hazards

H290 May be corrosive to metals.

Hazard statements for health hazards

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

2.2 Label elements

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

Hazard components

phosphoric acid ...%, isotridecanol, ethoxylated, C10- fatty alcohol, alkoxyated

Hazard pictograms



GHS05



GHS07

Signal word

Danger

Hazard statements

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe mist/vapours/spray.
P280 Wear protective gloves/protective clothing and eye protection/face protection.
P308 IF exposed or concerned:
P310 Immediately call a POISON CENTER/doctor.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352 IF ON SKIN: Wash with plenty of water.

Other labelling

Labelling for contents according to regulation (EC) No. 648/2004:
15 - 30% non-ionic surfactants
≥ 30% phosphates (phosphoric acid)

*** 2.3 Other hazards**

*** Adverse human health effects and symptoms**

Acute Tox. 5 (dermal + inhalation) H313 + H333: May be harmful in contact with skin or if inhaled.
Inhalation of spray may be harmful, may cause strong respiratory irritation and may cause damage to mucous membranes/lung.
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

*** Adverse environmental effects**

Aquatic Acute 2 H401: Toxic to aquatic life.
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Results of PBT and vPvB assessment

The product does not contain any PBT-/vPvB-substances according to the recipe.

SECTION 3: Composition / information on ingredients

3.1 Substances

not applicable



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3.2 Mixtures

Hazardous ingredients

| CAS No | EC No | Index No | Substance name | Concentration | Classification according to Regulation (EC) No 1272/2008 [CLP] | SCL/ M/ ATE |
|--------------------------|-----------|--------------|--------------------------------------|------------------|---|--|
| 7664-38-2 | 231-633-2 | 015-011-00-6 | phosphoric acid ...% | 40 - 60 weight-% | Met. Corr. 1; H290 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 | Skin Corr. 1B; H314: C>=25% Eye Dam. 1; H318: C>=25% Skin Irrit. 2; H315: 10%<=C<25% Eye Irrit. 2; H319: 10%<=C<25% |
| 69011-36-5 | 931-138-8 | | isotridecanol, ethoxylated | 5 - 15 weight-% | Acute Tox. 4; H302 Eye Dam. 1; H318 | Eye Dam. 1; H318: C>10% Eye Irrit. 2; H319: 1%<C<=10% ATE(oral): 500 mg/kg |
| 34590-94-8 | 252-104-2 | | (2-methoxymethylethoxy)- propanol | 5 - 15 weight-% | | |
| 166736-08-9 | | | C10- fatty alcohol, alkoxylated | < 5 weight-% | Acute Tox. 4; H302 Eye Dam. 1; H318 | ATE(oral): 500 mg/kg |
| 27458-92-0 | 248-469-2 | | isotridecanol | < 0.2 weight-% | Skin Irrit. 2; H315 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 | M=1 (Aquatic Acute 1) M=1 (Aquatic Chronic 1) |
| REACH No. | | | Substance name | | | |
| 01-2119485924-24 | | | phosphoric acid ...% | | | |
| Not relevant (polymer). | | | isotridecanol, ethoxylated | | | |
| 01-2119450011-60 | | | (2-methoxymethylethoxy)-propanol | | | |
| Not relevant (polymer). | | | C10- fatty alcohol, alkoxylated | | | |
| Not relevant (impurity). | | | isotridecanol | | | |

Additional information

Strongly acid aqueous mixture of non-ionic surfactants, solvents and phosphoric acid.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated, saturated clothing immediately.

Following inhalation

Provide fresh air.

In case of inhaling spray mist, consult a physician.

In the event of symptoms refer for medical treatment.

Following skin contact

In case of contact with skin wash off immediately with plenty of water.

In case of skin irritation, consult a physician.

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.



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Following ingestion

Do NOT induce vomiting.
Call a physician immediately.
If swallowed seek medical advice immediately and show the doctor packing or label.
Rinse mouth immediately and drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Effects

Risk of stomach perforation.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor

Keep under medical supervision for at least 48 hours.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam
Extinguishing powder
Carbon dioxide (CO₂)
Water spray jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire formation of dangerous gases possible.
In the event of fire the following can be released:
Carbon monoxide
Phosphorus oxides

5.3 Advice for firefighters

Special protective equipment for firefighters

Do not inhale explosion and combustion gases.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Use personal protection equipment.
Special danger of slipping by leaking/spilling product.

For emergency responders

Personal protection equipment
Use personal protection.
Use breathing apparatus if exposed to vapours/dust/aerosol.
Wear acid-resistant boots.
Forms slippery surfaces with water.
Special danger of slipping by leaking/spilling product.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.
Do not allow to enter into soil/subsoil.

6.3 Methods and material for containment and cleaning up

For containment

Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).
Flush away residues with water.
After taking up the material dispose according to regulation.



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For cleaning up

Suitable material for diluting or neutralizing:

Soda
Lime

6.4 Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Handle and open container with care.
Do not inhale gases/vapours/aerosols.
Avoid contact with eyes and skin.
Use only acid-proof equipment.
When diluting/dissolving, always have the water ready first, then slowly stir in the product.
Keep the packing dry and well sealed to prevent contamination and absorption of humidity.
The product is not combustible.

Advices on general occupational hygiene

Make available sufficient washing facilities
Remove contaminated, saturated clothing immediately.
Keep away from food and drink.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Suitable floor material:
Acid-resistant
Keep only in unopened original container.
Keep container tightly closed.

Materials to avoid

Do not store together with:
alkali

Further information on storage conditions

Keep locked up and out of reach of children.
Protect from heat and direct solar radiation.
Do not keep at temperatures below -5°C.
Do not keep at temperatures above 30°C.
Storage time: 4 years.

7.3 Specific end use(s)

Recommendation

Do not use the product itself for injecting or spraying. Use only the diluted application solution for splash cleaning.

*** SECTION 8: Exposure controls/personal protection**

*** 8.1 Control parameters**

*** Occupational exposure limit values**

| CAS No | EC No | Substance name | occupational exposure limit value |
|------------|-----------|----------------------------------|---|
| 7664-38-2 | 231-633-2 | Orthophosphoric acid | 1 [mg/m ³] Short-term(mg/m ³) 2 2000/39/EC |
| 34590-94-8 | 252-104-2 | (2-Methoxymethylethoxy)-propanol | 50 [ml/m ³ (ppm)] 308 [mg/m ³] skin resorptive 2000/39/EC |



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| CAS No | EC No | Substance name | occupational exposure limit value |
|------------|-----------|---------------------------------|---|
| 34590-94-8 | 252-104-2 | (2-Methoxymethylethoxy)propanol | 50 [ml/m ³ (ppm)] 308 [mg/m ³] (IE) |
| 7664-38-2 | 231-633-2 | Orthophosphoric acid | 1 [mg/m ³] Short-term(mg/m ³) 2 (1) (1) 15 minutes reference period (IE) |
| 34590-94-8 | 252-104-2 | (2-Methoxymethylethoxy)propanol | 50 [ml/m ³ (ppm)] 308 [mg/m ³] (UK) |
| 7664-38-2 | 231-633-2 | Orthophosphoric acid | 1 [mg/m ³] Short-term(mg/m ³) 2 (UK) |
| 7664-38-2 | 231-633-2 | phosphoric acid | 1 [mg/m ³] Short-term(mg/m ³) 2 EU |

* **DNEL worker**

| CAS No | Substance name | DNEL value | DNEL type | Remark |
|-----------|----------------------|---------------------|------------------------------|--------|
| 7664-38-2 | phosphoric acid ...% | 1 mg/m ³ | long-term inhalative (local) | |

8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure

Splash cleaning only in enclosed systems.

Personal protection equipment

Eye/face protection
tightly fitting goggles

Hand protection
chemical-resistant gloves
Glove material specification [make/type, thickness]: FKM, 0.4mm.
Glove material specification [make/type, thickness]: Butyl, 0.5mm.

Body protection:
Required properties:
acid-resistant

Environmental exposure controls

Technical measures to prevent exposure

Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.
Avoid penetration into the subsoil/soil.
Do not discharge into surface waters.

* **SECTION 9: Physical and chemical properties**

* **9.1 Information on basic physical and chemical properties**

Physical state
liquid

Colour
colourless up to yellowish

Odour
characteristic



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Safety relevant basis data

| | Value | Method | Source, Remark |
|--|------------------------------------|--------|---|
| Odour threshold: | | | (2-methoxymethylethoxy)-propanol: 210 - 600mg/m ³ (34 - 97 ppm). |
| Melting point/freezing point | solidifying range < -5 °C | | |
| Boiling point or initial boiling point and boiling range | ≥ 100 °C | | |
| flammability | solid | | not applicable |
| flammability | gaseous | | not applicable |
| Lower and upper explosion limit | Upper explosion limit 14 Vol-% | | Value of (2-methoxymethylethoxy)-propanol. |
| Lower and upper explosion limit | Lower explosion limit 1.1 Vol-% | | Value of (2-methoxymethylethoxy)-propanol. |
| Flash point | | | No flash point up to 100 °C. |
| Auto-ignition temperature | 205 °C | | Value of (2-methoxymethylethoxy)-propanol. |
| Decomposition temperature | ≥ 100 °C | | |
| pH | in delivery state < 1 | | |
| Viscosity | dynamic 154 mPa*s (20°C) | | |
| Solubility(ies) | Water solubility | | miscible |
| Partition coefficient n-octanol/water (log value) | -0.77 | | Value of phosphoric acid. |
| Vapour pressure | 17- 24 hPa (20°C) | | |
| Density and/or relative density | approx. 1.32 g/cm ³ | | |
| Relative vapour density | 5.12 | | Value of (2-methoxymethylethoxy)-propanol. |
| particle characteristics | | | not applicable (liquid). |

9.2 Other information

Information with regard to physical hazard classes

Explosives

Assessment/classification

The mixture does not contain any explosive substances (CLP I 2.1.4.3 a).
CLP I 2.1.4.3 a: The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with explosive properties.

flammable gases

Assessment/classification

not applicable (liquid).

Aerosols

Assessment/classification

not relevant - no aerosol.
The classification criteria for this hazard class are not met by definition.



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Oxidising gas

Assessment/classification
not applicable (liquid).

Gases under pressure

Assessment/classification
not applicable (liquid - no dissolved gas).

flammable liquids

Assessment/classification
not flammable, not combustible (No flash point below 100°C).

flammable solids

Assessment/classification
not applicable (liquid).

Self-reactive substances and mixtures

Assessment/classification
The mixture does not contain any self-reactive substances (CLP I 2.8.4.2 a).
CLP I 2.8.4.2 a: There are no chemical groups present in the molecule associated with explosive or self reactive properties.

Pyrophoric liquids

Assessment/classification
The mixture does not contain any pyrophoric substances - not spontaneously flammable (CLP I 2.9.4.1).
CLP I 2.9.4.1: The classification procedure for pyrophoric liquids need not be applied when experience in manufacture or handling shows that the substance or mixture does not ignite spontaneously on coming into contact with air at normal temperatures (i.e. the substance is known to be stable at room temperature for prolonged periods of time (days)).

Pyrophoric solids

Assessment/classification
not applicable (liquid).

self-heating substances and mixtures

Assessment/classification
The mixture does not contain any self-heating substances.

Substances or mixtures which, in contact with water, emit flammable gases

Assessment/classification
not relevant - in contact with water releases no flammable gases (CLP I 2.12.4.1).
CLP I 2.12.4.1: The classification procedure for this class need not be applied if: (a) the chemical structure of the substance or mixture does not contain metals or metalloids; or (b) experience in production or handling shows that the substance or mixture does not react with water, e.g. the substance is manufactured with water or washed with water; or (c) the substance or mixture is known to be soluble in water to form a stable mixture.

Oxidising liquids

Assessment/classification
The mixture does not contain any oxidising substances.

Oxidising solids

Assessment/classification
not applicable (liquid).

Organic peroxides

Assessment/classification
The mixture does not contain any organic peroxides.



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Corrosive to metals

Safety characteristics

| | Value | Method, Result | Source, Remark |
|------------------------------------|-------------|--|----------------|
| Corrosion rate (mm aluminium/year) | > 6.25 mm/a | Expert judgement and weight of evidence determination. | |
| Corrosion rate (mm steel/year) | > 6.25 mm/a | Expert judgement and weight of evidence determination. | |

Assessment/classification

The mixture is classified as corrosive to metals (Met. Corr. 1 H290).

Desensitised explosives

Assessment/classification

The mixture does not contain any desensitised explosive substances.

Other safety characteristics

| | Value | Method | Source, Remark |
|----------------------|---------|--------|--|
| Evaporation rate | | | Water: 0.36 (ASTM D3539). |
| Evaporation rate | | | (2-methoxymethylethoxy)-propanol: ~0.02 (ASTM D3539) / ~400 (DIN 53170). |
| Solvent content | 5- 15 % | | |
| Explosive properties | | | none |
| Oxidising properties | | | none |

Other information

No further relevant informations available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Exothermic reaction with alkalis.
No further hazardous reactions known if used as directed.

10.2 Chemical stability

Stable at ambient temperature.

10.3 Possibility of hazardous reactions

Reactions with alkalis.

10.4 Conditions to avoid

Heat and direct solar radiation.

10.5 Incompatible materials

Oxidising agent, strong
Corrodes aluminium.
Alkali (lye)

10.6 Hazardous decomposition products

No decomposition if used as directed.



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*** SECTION 11: Toxicological information**

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

*** Acute toxicity**

Animal data

| | Effective dose | Method, Evaluation | Source, Remark |
|---------------------------|---|------------------------------|---|
| Acute oral toxicity | 1897 mg/kg CAS No7664-38-2 phosphoric acid ... % LD50: 1530 mg/kg Species Rat | ATE: Acute Toxicity Estimate | |
| | CAS No69011-36-5 isotridecanol, ethoxylated 500 mg/kg | ATE: Acute Toxicity Estimate | |
| | CAS No166736-08-9 C10- fatty alcohol, alkoxyated LD50: 500 mg/kg | ATE: Acute Toxicity Estimate | |
| Acute dermal toxicity | 4273 mg/kg | ATE: Acute Toxicity Estimate | The acute dermal toxicity is corresponding to GHS-category 5. |
| | CAS No7664-38-2 phosphoric acid ... % LD50: 2740 mg/kg Species Rabbit | | |
| Acute inhalation toxicity | Acute inhalation toxicity (dust/mist) 5.1 mg/L | ATE: Acute Toxicity Estimate | |
| | Acute inhalation toxicity (vapour) LC50: > 50 mg/L | ATE: Acute Toxicity Estimate | |

*** Assessment/classification**

Harmful if swallowed.
May be harmful in contact with skin or if inhaled.

Skin corrosion/irritation

Animal data

| Result / Evaluation | Method | Source, Remark |
|---------------------|---------------------|----------------|
| Corrosive. | Calculation method. | |

Serious eye damage/irritation

Animal data

| Result / Evaluation | Method | Source, Remark |
|---------------------|---------------------|----------------|
| Corrosive | Calculation method. | |

Sensitisation to the respiratory tract

Assessment/classification

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

Skin sensitisation

Animal data

| Result / Evaluation | Dose / Concentration | Method | Source, Remark |
|---|----------------------|---------------------|----------------|
| The mixture is not classified as skin sensitiser. | | Calculation method. | |

Germ cell mutagenicity

Assessment/classification

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



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Carcinogenicity

Assessment/classification

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

Reproductive toxicity

Assessment/classification

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

Overall Assessment on CMR properties

The mixture is not classified as mutagen / not classified as carcinogen / not classified as reproductive toxicant.

STOT-single exposure

STOT SE 1 and 2

Assessment/classification

The mixture is not classified as specific target organ toxicant (single exposure).
Based on available data, the classification criteria are not met.

STOT SE 3

Irritation to respiratory tract

Assessment/classification

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

Narcotic effects

Assessment/classification

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

STOT-repeated exposure

Assessment/classification

The mixture is not classified as specific target organ toxicant (repeated exposure).
Based on available data, the classification criteria are not met.

Aspiration hazard

Assessment/classification

The mixture is not classified as aspiration hazardous.
Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Information on other hazards

| | Effective dose | Method,Evaluation | Source, Remark |
|---------------------------------|----------------|-------------------|--|
| Endocrine disrupting properties | | | This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria. |

Other information

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).
Inhalation of spray may cause strong respiratory irritation and may cause damage to mucous membranes/lung.
Causes burns.



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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

| | Effective dose | Method, Evaluation | Source, Remark |
|--|--|--------------------|----------------|
| Acute (short-term) fish toxicity | LC50: 3.3 mg/L | calculated. | |
| | CAS No27458-92-0 isotridecanol LC50: 0.55 mg/L Species Danio rerio (zebrafish) Test duration 96 h | OECD 203 | |
| | CAS No166736-08-9 C10- fatty alcohol, alkoxyated LC50: >10- 100 mg/L Species Danio rerio (zebrafish) Test duration 96 h | OECD 203 | |
| Chronic (long-term) fish toxicity | CAS No69011-36-5 isotridecanol, ethoxylated LC50: >1- 10 mg/L Species Cyprinus carpio (Common Carp) Test duration 96 h | OECD 203 | |
| | CAS No69011-36-5 isotridecanol, ethoxylated NOEC 1.73 mg/L | QSAR | |
| Acute (short-term) toxicity to crustacea | EC50 5.8 mg/L | calculated. | |
| | CAS No27458-92-0 isotridecanol EC50 0.391 mg/L Species Daphnia magna (Big water flea) Test duration 48 h | OECD 202 | |
| | CAS No166736-08-9 C10- fatty alcohol, alkoxyated EC50 >1- 10 mg/L Species Daphnia magna (Big water flea) Test duration 48 h | OECD 202 | |
| Chronic (long-term) toxicity to aquatic invertebrate | CAS No69011-36-5 isotridecanol, ethoxylated EC50 >1- 10 mg/L Species Daphnia magna (Big water flea) Test duration 48 h | OECD 202 | |
| | CAS No27458-92-0 isotridecanol NOEC 0.0036 mg/L Species Daphnia magna (Big water flea) Test duration 21 d | OECD 211 | |
| Acute (short-term) toxicity to algae and cyanobacteria | CAS No69011-36-5 isotridecanol, ethoxylated EC10 2.6 mg/L Species Daphnia magna (Big water flea) Test duration 21 d | OECD 211 | |
| | EC50 6.9 mg/L | calculated. | |



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| | Effective dose | Method, Evaluation | Source, Remark |
|---|---|--------------------|----------------|
| | CAS No27458-92-0 isotridecanol EC50 0.297 mg/L Species <i>Desmodesmus subspicatus</i> Test duration 72 h | OECD 201 | |
| | CAS No166736-08-9 C10-fatty alcohol, alkoxyated EC50 >10- 100 mg/L Species <i>Scenedesmus subspicatus</i> Test duration 72 h | | |
| Chronic (long-term) toxicity to aquatic algae and cyanobacteria | CAS No69011-36-5 isotridecanol, ethoxylated EC50 >1- 10 mg/L Species <i>Scenedesmus subspicatus</i> Test duration 72 h | OECD 201 | |
| | CAS No69011-36-5 isotridecanol, ethoxylated EC10: >1- 10 mg/L Species <i>Desmodesmus subspicatus</i> Test duration 72 h | OECD 201 | |
| Toxicity to other aquatic plants/organisms | not determined | | |
| Toxicity to microorganisms | not determined | | |

Assessment/classification

Toxic to aquatic life.

12.2 Persistence and degradability

| | Value | Method | Source, Remark |
|----------------|--|---|---|
| Biodegradation | Degradation rate > 80 % | calculated. | DOC reduction Readily biodegradable (according to OECD criteria). |
| Biodegradation | Degradation rate 100 % | Neutralization, pH-measurement | Acid properties can be eliminated up to 100% by neutralization. |
| Biodegradation | Degradation rate > 60 % Test duration 28 d | OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C | CAS No69011-36-5 isotridecanol, ethoxylated |
| Biodegradation | Degradation rate > 60 % Test duration 28 d | OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C | CAS No166736-08-9 C10-fatty alcohol, alkoxyated |
| Biodegradation | Degradation rate 90- 100 % Test duration 28 d | OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D | CAS No27458-92-0 isotridecanol |
| Biodegradation | | | CAS No7664-38-2 phosphoric acid ... % Inorganic product which is not eliminable from water through biological cleaning processes. |
| Biodegradation | Degradation rate > 70 % Test duration 28 d | OECD 301E/ EEC 92/69/V, C.4-B | CAS No34590-94-8 (2-methoxymethylethoxy)-propanol |



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| | Value | Method | Source, Remark |
|----------------|--|--|---|
| Biodegradation | Degradation rate 90- 100 % Test duration 28 d | OECD 302B/ ISO 9888/ EEC 92/69/V, C.9 | CAS No34590-94-8 (2-methoxymethylethoxy)-propanol |

12.3 Bioaccumulative potential

Assessment/classification

isotridecanol, ethoxylated: Bioaccumulation is improbable.
phosphoric acid: Accumulation in organisms is not expected.
C10- fatty alcohol, alkoxyated: Accumulation in organisms is not expected.
isotridecanol: Has the potential to bioaccumulate (log Pow: 5.57).
(2-methoxymethylethoxy)-propanol: Accumulation in organisms is not expected (log Pow: 0.004).

12.4 Mobility in soil

Assessment/classification

isotridecanol, ethoxylated: Koc: >5000, strong adsorption on soil, immobile.
phosphoric acid: not available.
C10- fatty alcohol, alkoxyated: Adsorption on soil is possible.
isotridecanol: not available.
(2-methoxymethylethoxy)-propanol: Dissolves in water. Highly mobile in soil.

12.5 Results of PBT and vPvB assessment

The product does not contain any PBT-/vPvB-substances according to the recipe.

12.6 Endocrine disrupting properties

| | Effective dose | Method,Evaluation | Source, Remark |
|---------------------------------|----------------|-------------------|--|
| Endocrine disrupting properties | | | This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria. |

12.7 Other adverse effects

| | Value | Method | Source, Remark |
|----------------------------------|-------|--------|---|
| Ozone depletion potential (ODP): | | | Based on available data, the classification criteria are not met. |

Additional ecotoxicological information

| | Value | Method | Source, Remark |
|-------------------------------------|---------------------------------|-------------|--|
| Chemical oxygen demand (COD) AOX | approx. 504 mgO ₂ /g | calculated. | The product does not contain any organically bound halogens according to the recipe. |

Additional information

The surfactants in our product meet the criteria for biodegradation as laid down in Annex III of the Regulation (EC) No 648/2004 on detergents.
Acute aquatic environmental hazards: Aquatic Acute 2 H401: Toxic to aquatic life.
The mixture is not classified as chronic hazardous to the aquatic environment.
Do not allow uncontrolled discharge of product into the environment.
No further relevant informations available.



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*** SECTION 13: Disposal considerations**

*** 13.1 Waste treatment methods**

Waste codes/waste designations according to EWC/AVV

| Waste code product | Waste name |
|--------------------|--|
| 200129 * | detergents containing hazardous substances |

| Waste code packaging | Waste name |
|----------------------|--|
| 150110 * | packaging containing residues of or contaminated by hazardous substances |

*** Appropriate disposal / Product**

Do not dispose with household waste. Do not discharge into the drains.
Dispose of waste according to applicable legislation.

Appropriate disposal / Package

Non-contaminated packages may be recycled.
Handle contaminated packages in the same way as the substance itself.

*** Other disposal recommendations**

Application solution / cleaning solution :
Neutralize with alkalies or lime.
Product is allowed to discharge into sewage treatment plants, but in accordance with official regulations.

SECTION 14: Transport information

| | Land transport (ADR/RID) | Sea transport (IMDG) | Air transport (ICAO-TI / IATA-DGR) |
|---|--------------------------|--------------------------|------------------------------------|
| 14.1 UN number or ID number | UN 1805 | UN 1805 | UN 1805 |
| 14.2 UN proper shipping name | PHOSPHORIC ACID SOLUTION | PHOSPHORIC ACID SOLUTION | Phosphoric acid, solution |
| 14.3 Transport hazard class(es) | 8 | 8 | 8 |
| 14.4 Packing group | III | III | III |
| 14.5 Environmental hazards | No | No | No |
| 14.6 Special precautions for user | none | | |
| 14.7 Maritime transport in bulk according to IMO instruments | not relevant | | |

Land transport (ADR/RID)

| | |
|----------------------------|--------------------------|
| UN number or ID number | UN 1805 |
| UN proper shipping name | PHOSPHORIC ACID SOLUTION |
| Transport hazard class(es) | 8 |
| Hazard label(s) | 8 |
| Classification code | C1 |
| Packing group | III |
| Environmental hazards | No |
| Limited quantity (LQ) | 5 L |
| Special provisions | - |
| Tunnel restriction code | E |



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Sea transport (IMDG)

UN number or ID number UN 1805
UN proper shipping name PHOSPHORIC ACID SOLUTION
Transport hazard class(es) 8
Packing group III
Environmental hazards No
Limited quantity (LQ) 5 L
Marine pollutant No
EmS F-A, S-B

Air transport (ICAO-TI / IATA-DGR)

UN number or ID number UN 1805
UN proper shipping name Phosphoric acid, solution
Transport hazard class(es) 8
Packing group III
Environmental hazards No

*** SECTION 15: Regulatory information**

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

*** EU legislation**

Authorisations
not relevant

*** Restrictions on use**

Regulation (EC) No 1907/2006 (REACH), Annex XVII No 3 - not relevant if used as directed.
Regulation (EC) No 1907/2006 (REACH), Annex XVII No 75 - not relevant if used as directed.

Restrictions of occupation

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations (EU)

To follow:
Regulation (EC) No. 648/2004 (Detergents regulation)
Directive 2012/18/EU, Annex I: not mentioned.

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive] VOC
VOC content, delivery state approx. 7.5 %

15.2 Chemical Safety Assessment

National regulations

For this mixture a chemical safety assessment were not carried out.



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*** SECTION 16: Other information**

*** Abbreviations and acronyms**

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

ASTM: American Society for Testing and Materials

ATE: Acute Toxicity Estimate

AVV: Waste Shipment Ordinance (DE)

DGR: Dangerous Goods Regulations (IATA)

DNEL: derived no-effect level

DOC: Dissolved Organic Carbon

EmS: emergency procedures

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization

JArbSchG: Youth Labor Protection Act (DE)

OECD: Organisation for Economic Cooperation and Development

PBT: persistent and bioaccumulative and toxic

RID: Dangerous goods regulations for transport by rail

SCL: Specific concentration limit

TI: Technical Instruction

TRGS: Technical Rules for Hazardous Substances

VOC: Volatile organic compounds

vPvB: very persistent, very bioaccumulative

Met. Corr. 1: Corrosive to metals, Category 1

Acute Tox. 4, H302: Acute Toxicity (oral), Category 4

Skin Corr. 1B: Skin corrosion, Sub-category 1B

Skin Irrit. 2: Skin irritation, Category 2

Eye Dam. 1: Serious eye damage, Category 1

Aquatic Acute 1: Short-term (acute) aquatic hazard, Category 1

Aquatic Chronic 1: Long-term (chronic) aquatic hazard, Category 1

Key literature references and sources for data

Own measurements.

European Chemicals Agency, <http://echa.europa.eu/>.

Informations from our suppliers.

Additional information

National and local regulations concerning chemicals shall be observed.

These data are given according to our actual knowledge about this product. This data sheet does not correspond to an assurance by virtue of a contract for properties of the product.

Relevant H- and EUH-phrases (Number and full text)

| | |
|------|---|
| H290 | May be corrosive to metals. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

Indication of changes

* Data changed compared with the previous version