

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended



APESIN AP 100 PLUS

WM 0716030

Order number: 0716030

Version 2.2

Revision Date 10.07.2026

Print Date 14.07.2026

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

1.1 Product identifier

Trade name : APESIN AP 100 PLUS
UFI : 0E13-20X5-S009-QWDS

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

Use of the Substance/Mixture : Biocides

Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Company : Tana Chemie GmbH
Rheinallee 96
55120 Mainz
Telephone : +49613196403
Telefax : +4961319642526
E-mail address : Produktsicherheit@werner-mertz.com
Responsible/issuing person
Contact person : Product development / product safety

1.4 Emergency telephone

EU: 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin corrosion/irritation, Category 1B H314: Causes severe skin burns and eye damage.

Serious eye damage, Category 1 H318: Causes serious eye damage.

Long-term (chronic) aquatic hazard, Category 3 H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H314 Causes severe skin burns and eye damage.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**

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P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.

Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/ doctor.

Disposal:
P501 Dispose of container into the collection of recyclables only when it is completely empty.

Hazardous ingredients which must be listed on the label:

pentapotassium
bis(peroxymonosulphate)
bis(sulphate)
(+)-tartaric acid
sodium dodecyl sulphate
Alcohols, C9-11-iso-, C10-rich,
ethoxylated

Additional Labeling:

Safety data sheet available on request.

EUH208 Contains dipotassium peroxodisulphate. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
pentapotassium	70693-62-8	Skin Corr. 1B; H314	>= 30 - < 50

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bis(peroxymonosulphate) bis(sulphate)	274-778-7	Acute Tox. 4; H302 Aquatic Chronic 3; H412	
(+)-tartaric acid	87-69-4 201-766-0 01-2119537204-47	Eye Dam. 1; H318	>= 10 - < 15
sodium benzoate	532-32-1 208-534-8 01-2119460683-35	Eye Irrit. 2; H319	>= 10 - < 15
sodium dodecyl sulphate	151-21-3 205-788-1	Eye Dam. 1; H318 Acute Tox. 4; H302 Skin Irrit. 2; H315 specific concentration limit Eye Irrit. 2; H319 10 - < 20 % Eye Dam. 1; H318 >= 20 %	>= 5 - < 10
sodium carbonate	497-19-8 207-838-8 011-005-00-2 01-2119485498-19	Eye Irrit. 2; H319	>= 3 - < 5
disodium dihydrogen (1- hydroxyethylidene)bisphosphonate	7414-83-7 231-025-7 01-2119510382-52	Acute Tox. 4; H302	>= 3 - < 5
Alcohols, C9 – C11 –iso-, C10 –rich, ethoxylated	78330-20-8 02-2119549526-31	Eye Dam. 1; H318 Acute Tox. 4; H302 specific concentration limit Eye Irrit. 2; H319 1 - 10 % Eye Dam. 1; H318 > 10 %	>= 3 - < 5
dipotassium peroxodisulphate	7727-21-1 231-781-8 016-061-00-1	Ox. Sol. 3; H272 Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335 Acute toxicity estimate Acute oral toxicity: 500,0 mg/kg	>= 0,1 - < 1

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this material safety data sheet to the doctor in attendance.

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- | | | |
|-------------------------|---|---|
| If inhaled | : | Move to fresh air.
Consult a physician after significant exposure. |
| In case of skin contact | : | Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. |
| In case of eye contact | : | Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
Protect unharmed eye.
Continue rinsing eyes during transport to hospital. |
| If swallowed | : | Clean mouth with water and drink afterwards plenty of water.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Take victim immediately to hospital. |

4.2 Most important symptoms and effects, both acute and delayed

- | | | |
|----------|---|---------------------------|
| Symptoms | : | corrosive effects |
| Risks | : | No information available. |

4.3 Indication of any immediate medical attention and special treatment needed

- | | | |
|-----------|---|--|
| Treatment | : | For specialist advice physicians should contact the Poisons Information Service. |
|-----------|---|--|

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | | |
|------------------------------|---|---|
| Suitable extinguishing media | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
|------------------------------|---|---|

5.2 Special hazards arising from the substance or mixture

- | | | |
|---------------------------------------|---|---|
| Specific hazards during fire fighting | : | Do not allow run-off from fire fighting to enter drains or water courses. |
| Hazardous combustion products | : | No hazardous combustion products are known |

5.3 Advice for firefighters

- | | | |
|--|---|---|
| Special protective equipment for fire-fighters | : | In the event of fire, wear self-contained breathing apparatus. |
| Further information | : | Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.
Ensure adequate ventilation.
Evacuate personnel to safe areas.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Neutralize with chalk, alkali solution or ammonia.
Pick up and arrange disposal without creating dust.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8., Treat recovered material as described in the section "Disposal considerations"., Refer to section 15 for specific national regulation.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.
Use only with adequate ventilation/personal protection.

Advice on protection against fire and explosion : Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke.
Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Routes of exposure	Potential health effects	Value
(+)-tartaric acid	Consumers	Ingestion	Long-term systemic effects	8,1 mg/kg
	Consumers	Skin contact	Long-term systemic effects	1,5 mg/kg
	Workers	Skin contact	Long-term systemic effects	2,9 mg/kg
	Workers	Inhalation	Long-term systemic effects	5,2 mg/m3
	Consumers	Inhalation	Long-term systemic effects	1,3 mg/m3
sodium benzoate	Workers	Skin contact	Long-term local effects	4,5 mg/cm2
	Workers	Inhalation	Long-term local effects	6,3 mg/m3
	Consumers	Ingestion	Long-term systemic effects	25 mg/kg
	Consumers	Skin contact	Long-term systemic effects	20,8 mg/kg
	Consumers	Skin contact	Long-term local effects	2,7 mg/cm2
	Workers	Inhalation	Long-term systemic effects	3 mg/m3
	Workers	Inhalation	Long-term local effects	0,1 mg/m3
	Workers	Skin contact	Long-term systemic effects	62,5 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	1,5 mg/m3
	Consumers	Inhalation	Long-term local effects	0,06 mg/m3
	Consumers	Skin contact	Long-term systemic effects	31,25 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	16,6 mg/kg bw/day

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sodium carbonate	Workers	Inhalation	Long-term local effects	10 mg/m3
	Consumers	Inhalation	Acute local effects	5 mg/m3
dipotassium peroxodisulphate	Workers	Inhalation	Long-term systemic effects	2,06 mg/m3
	Workers	Inhalation	Acute systemic effects	590 mg/m3
	Workers	Inhalation	Long-term local effects	2,06 mg/m3
	Workers	Skin contact	Long-term systemic effects	18,2 mg/kg
	Workers	Skin contact	Acute systemic effects	400 mg/kg
	Workers	Skin contact	Long-term local effects	0,102 mg/cm2
	Workers	Skin contact	Acute local effects	2,248 mg/cm2

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
pentapotassium bis(peroxymonosulphate) bis(sulphate)	Fresh water	0,022 mg/l
	Sea water	0,00222 mg/l
	Fresh water sediment	0,0782 mg/kg
	Sea sediment	0,00796 mg/kg
	Soil	1 mg/kg
	Sewage treatment plant	108 mg/l
	Intermittent use/release	0,0109 mg/l
	Oral	44,44 mg/kg
(+) -tartaric acid	Fresh water	0,3125 mg/l
	Sea water	0,3125 mg/l
	Fresh water sediment	1,141 mg/kg
	Sea sediment	1,141 mg/kg
	Soil	0,0449 mg/kg
	Sewage treatment plant	10 mg/l
sodium benzoate	Intermittent use/release	0,305 mg/l

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	Sewage treatment plant	10 mg/l
	Fresh water	0,581 mg/l
	Sea water	0,058 mg/l
	STP	10 mg/l
	Fresh water sediment	2,5 mg/l
	Sea sediment	0,25 mg/l
	Soil	0,159 mg/l
sodium dodecyl sulphate	Fresh water	0,137 mg/l
	Sea water	0,0137 mg/l
	Fresh water sediment	4,82 mg/kg
	Sea sediment	0,482 mg/kg
	Soil	0,882 mg/kg
	Intermittent use/release	0,055 mg/l
dipotassium peroxodisulphate	Fresh water	0,0763 mg/l
	Sea water	0,011 mg/l
	Fresh water sediment	0,275 mg/kg
	Soil	0,015 mg/kg
	Sewage treatment plant	3,6 mg/l
	Intermittent use/release	0,763 mg/l
	Sea sediment	0,0396 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Tightly fitting safety goggles

Hand protection

Material : Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

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Remarks	:	Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place. Remove and wash contaminated clothing before re-use.
Respiratory protection	:	Not required; except in case of aerosol formation. Recommended Filter type: ABEK-P3-filter

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	granular
Color	:	white
Odor	:	odorized
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	No information available.
Flammability (solid, gas)	:	No data available
Flammability (liquids)	:	No data available
Lower explosion limit	:	No data available
Upper explosion limit	:	No data available
Flash point	:	does not flash
Ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	ca. 4, 0,5 % at 20 °C
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Water solubility	:	ca. 200 g/l at 20 °C
Solubility in other solvents	:	No data available
Partition coefficient: n-	:	No data available

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octanol/water

Vapor pressure : No data available

Relative density : 0,755
Reference substance: Water

Bulk density : 700 - 800 kg/m³

Relative vapor density : No data available

Particle characteristics : No data available

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.
No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.
No decomposition if used as directed.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

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

Our company is strongly against animal testing.
Our company does not place any orders for animal testing for the finished product or the ingredients.
However, as a result of EU legislation (REACH Regulation), the manufacturers of ingredients or EU importers are obliged to test ingredients with regard to their effects on human health and the environment before they are brought onto the market. Some of the tests made necessary by this took place decades ago.

Acute toxicity

Acute toxicity : Not Rated

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Components:

(+)-tartaric acid

87-69-4:

Acute oral toxicity : see user defined free text (Rat): 7.500 mg/kg

LD50 Oral (Rat, female): > 2.000 mg/kg
Method: OECD Test Guideline 423

Acute dermal toxicity : LD50 Dermal (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402

sodium benzoate

532-32-1:

Acute oral toxicity : LD50 Oral (Rat): 3.140 mg/kg

Acute inhalation toxicity : LC50 (Rat): 12,2 mg/l

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg

sodium dodecyl sulphate

151-21-3:

Acute oral toxicity : LD50 (Rat): 1.288 mg/kg

Acute inhalation toxicity : LC50 (Rat): 3,9 mg/l

sodium carbonate

497-19-8:

Acute oral toxicity : LD50 (Rat): 2.800 mg/kg

LD50 Oral (Rat): 4.090 mg/kg

Acute inhalation toxicity : LC50 (Rat): 2.300 mg/m³
Exposure time: 2 h
Method: OECD Test Guideline 403

LC50 (Mouse): 1,2 mg/l
Exposure time: 2 h

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg
LD50 Dermal (Rat): > 2.000 mg/kg

Alcohols, C9 – C11 –iso-, C10 –rich, ethoxylated

78330-20-8:

Acute oral toxicity : LD50 Oral (Rat): 500 - 2.000 mg/kg

LD50 Oral (Rat): > 300 - 2.000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 Dermal (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 402

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dipotassium peroxodisulphate

7727-21-1:

- Acute oral toxicity : LD50 Oral (Rat): 742 mg/kg
Method: OECD Test Guideline 401
- Acute toxicity estimate: 500,0 mg/kg
Method: Converted acute toxicity point estimate
- Acute inhalation toxicity : LC50 (Rat): 5,1 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
- Acute dermal toxicity : LD50 Dermal (Rat): > 2.000 mg/kg

Skin corrosion/irritation

Product:

- Remarks : Extremely corrosive and destructive to tissue.

Components:

(+)-tartaric acid

87-69-4:

- Result : No skin irritation

sodium benzoate

532-32-1:

- Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

sodium carbonate

497-19-8:

- Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Alcohols, C9 – C11 –iso-, C10 –rich, ethoxylated

78330-20-8:

- Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Serious eye damage/eye irritation

Product:

- Remarks : May cause irreversible eye damage.

Components:

(+)-tartaric acid

87-69-4:

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Result : Causes serious eye damage.
GLP : see user defined free text

sodium benzoate

532-32-1:

Species : Rabbit
Method : OECD Test Guideline 405
Result : Eye irritation

sodium carbonate

497-19-8:

Species : Rabbit
Result : Eye irritation

Alcohols, C9 – C11 –iso-, C10 –rich, ethoxylated

78330-20-8:

Species : Rabbit
Method : OECD Test Guideline 405
Result : Irreversible effects on the eye

Respiratory or skin sensitization

Product:

Remarks : No data available

Components:

sodium carbonate

497-19-8:

Result : Not a skin sensitizer.

Alcohols, C9 – C11 –iso-, C10 –rich, ethoxylated

78330-20-8:

Test Type : Maximization Test
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Did not cause sensitization on laboratory animals.

Germ cell mutagenicity

Germ cell mutagenicity : Not Rated

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate)

70693-62-8:

Genotoxicity in vitro : Method: OECD Test Guideline 471
Remarks: In vitro tests did not show mutagenic effects

sodium dodecyl sulphate

151-21-3:

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Genotoxicity in vitro	: Method: OECD Test Guideline 471 Remarks: In vitro tests did not show mutagenic effects
Carcinogenicity	: Not Rated
Reproductive toxicity	: Not Rated
STOT-single exposure	: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT-repeated exposure	: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

(+)-tartaric acid

87-69-4:

Species	: Rat
NOAEL	: 2.460 mg/kg
Application Route	: Oral
Aspiration toxicity	: Not Rated

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment	: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
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Further information

Product:

Remarks	: No data available
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SECTION 12: Ecological information

12.1 Toxicity

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate)

70693-62-8:

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 53 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 3,5 mg/l Exposure time: 48 h

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Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 : > 1 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC: 0,222 mg/l
Exposure time: 37 d
Species: Cyprinodon variegatus (sheepshead minnow)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,267 mg/l
Exposure time: 24 h
Species: Daphnia

(+)-tartaric acid

87-69-4:

Toxicity to fish : LC0 (Carassius auratus (goldfish)): 200 mg/l
LC50 (Danio rerio (zebra fish)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia): 135 mg/l
Exposure time: 24 h

EC50 (Daphnia magna (Water flea)): 93,31 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum): 51,4 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 201

EC50 (Pseudokirchneriella subcapitata (green algae)): 51,4 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

sodium benzoate

532-32-1:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 484 mg/l
Exposure time: 96 h

LC50 (Fish): 1.500 mg/l
Exposure time: 24 h

NOEC (Pimephales promelas (fathead minnow)): 392,5 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : (Chlorella vulgaris (Fresh water algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

ErC50 (Pseudokirchneriella subcapitata (microalgae)): 30,5 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 5,81 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

LOEC: > 5,81 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

sodium dodecyl sulphate

151-21-3:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 4,5 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 6 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : IC50 (Desmodesmus subspicatus (green algae)): 53 mg/l
Exposure time: 72 h

Toxicity to microorganisms : EC50 (Aliivibrio fischeri): 0,46 mg/l
Exposure time: 30 min

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Species: Ceriodaphnia dubia (water flea)

sodium carbonate

497-19-8:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 300 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 200 - 227 mg/l
Exposure time: 48 h

EC50 (Daphnia): 264 mg/l
Exposure time: 48 h

EC50 (Ceriodaphnia dubia (water flea)): 200 - 227 mg/l
Exposure time: 48 h
Test Type: semi-static test

Alcohols, C9 – C11 –iso-, C10 –rich, ethoxylated, Alcohols, C9-11-iso-, C10-rich, ethoxylated

78330-20-8:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 10 - 100 mg/l
Exposure time: 96 h
Method: DIN 38412

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10 - 100 mg/l
Exposure time: 48 h
Method: DIN 38412

NOEC (Daphnia magna (Water flea)): 12,5 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 10 - 100 mg/l
Method: see user defined free text

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EC50 (Scenedesmus subspicatus): > 10 - 100 mg/l

Exposure time: 96 h

Method: see user defined free text

EC10 (algae): > 1 mg/l

Exposure time: 96 h

Method: see user defined free text

Toxicity to microorganisms : EC10 (activated sludge): 48 mg/l
Exposure time: 17 h
Method: DIN 38412

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 1 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

12.2 Persistence and degradability

Components:

(+)-tartaric acid

87-69-4:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 85 %
Exposure time: 28 d
Method: OECD Test Guideline 306

ThOD : 0,533 g/g

sodium benzoate

532-32-1:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 90 %
Exposure time: 7 d
Method: OECD 301 B

sodium dodecyl sulphate

151-21-3:

Biodegradability : Test Type: aerobic
Result: rapidly biodegradable
Biodegradation: 95 %
Exposure time: 28 d
Method: OECD 301 B

Alcohols, C9 – C11 –iso-, C10 –rich, ethoxylated, Alcohols, C9-11-iso-, C10-rich, ethoxylated

78330-20-8:

Biodegradability : Biodegradation: > 90 %
Method: OECD 301 E

Result: rapidly biodegradable
Biodegradation: > 60 %
Exposure time: 28 d
Method: OECD 301 B

Biochemical Oxygen Demand (BOD) : 1.650 mg/g
Incubation time: 30 d

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Chemical Oxygen Demand (COD) : 2.500 mg/g

12.3 Bioaccumulative potential

Components:

(+)-tartaric acid

87-69-4:

Partition coefficient: n-octanol/water : log Pow: -0,76

sodium benzoate

532-32-1:

Partition coefficient: n-octanol/water : log Pow: -2,27

sodium dodecyl sulphate

151-21-3:

Bioaccumulation : Bioconcentration factor (BCF): 71

Partition coefficient: n-octanol/water : log Pow: 1,6

Alcohols, C9 – C11 –iso-, C10 –rich, ethoxylated, Alcohols, C9-11-iso-, C10-rich, ethoxylated

78330-20-8:

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

12.4 Mobility in soil

Components:

sodium dodecyl sulphate

151-21-3:

Distribution among environmental compartments : Koc: 10000
Remarks: immobile

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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Harmful to aquatic organisms, may cause long-term adverse effects
in the aquatic environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- | | |
|------------------------|--|
| Product | : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
In accordance with local and national regulations. |
| Contaminated packaging | : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers. |

SECTION 14: Transport information

14.1 UN number or ID number

- | | |
|------|--------|
| ADR | : 3260 |
| IMDG | : 3260 |
| IATA | : 3260 |

14.2 UN proper shipping name

- | | |
|------|--|
| ADR | : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
(pentapotassium bis(peroxymonosulphate) bis(sulphate)) |
| IMDG | : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
(pentapotassium bis(peroxymonosulphate) bis(sulphate)) |
| IATA | : Corrosive solid, acidic, inorganic, n.o.s. |

14.3 Transport hazard class(es)

- | | |
|------|-----|
| ADR | : 8 |
| IMDG | : 8 |
| IATA | : 8 |

14.4 Packing group

- | | |
|------------------------------|--|
| ADR | |
| Classification Code | : C2 |
| Packaging group | : III |
| Hazard Identification Number | : 80 |
| Labels | : 8 |
| Tunnel restriction code | : (E) |
| IMDG | |
| Packaging group | : III |
| Labels | : 8 |
| EmS Number | : F-A, S-B |
| IATA | |
| (Cargo) | : Corrosive solid, acidic, inorganic, n.o.s. |
| Packaging group | : III |
| Labels | : 8 |

14.5 Environmental hazards

- | | |
|---------------------------|------|
| ADR | |
| Environmentally hazardous | : no |

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IMDG

Marine pollutant : no

IATA

Environmentally hazardous : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

For personal protection see section 8.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : Not applicable

TA Luft List (Germany) : Total dust: Not applicable
: Inorganic substances in powdered form: Not applicable
: Inorganic substances in vapor or gaseous form: Not applicable
: Organic Substances: : portionClass 1: 29,8 %
: Carcinogenic substances: Not applicable
: mutagenic: Not applicable
: Toxic to reproduction: Not applicable

Volatile organic compounds (VOC) content : Directive 2010/75/EU of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control)
Update: Not applicable

according to Detergents Regulation EC 648/2004 : $\geq 30\%$ oxygen-based bleaching agents, 5 - $<15\%$ anionic surfactants, $<5\%$ phosphonates, non-ionic surfactants, soap, perfumes

15.2 Chemical Safety Assessment

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according to Regulation (EC) No. 1907/2006, as amended



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SECTION 16: Other information

Full text of H-Statements

H272	:	May intensify fire; oxidizer.
H302	:	Harmful if swallowed.
H314	:	Causes severe skin burns and eye damage.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H334	:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	:	May cause respiratory irritation.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Ox. Sol.	:	Oxidizing solids
Resp. Sens.	:	Respiratory sensitization
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitization
STOT SE	:	Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

Classification procedure:

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended



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1B	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Aquatic Chronic 3	H412	Calculation method

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