AEDEX EC

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 4/8/2022 Revision date: 8/8/2024 Supersedes version of: 6/21/2024 Version: 2.3

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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	AEDEX EC
Product code	:	PER240DTE40PBO200EC
Type of product	:	Biocidal products (e.g. Disinfectants, pest control)
Product group	:	Biocide

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

1.2.1. Relevant identified uses

Intended for general public

Main use category	:	Professional use,Consumer use
Use of the substance/mixture	:	Insecticide
Function or use category	:	Pesticides, non-agricultural (Biocides)

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ARMOSA TECH S.A.
Rue des Tuiliers 1
BE 4480 Engis
Belgique
T +32 (0)85 519 519, F +32 (0)85 519 510
msds@armosa.tech, www.armosa.eu

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Carcinogenicity, Category 2	H351
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment - Acute Hazard, Category 1	H400
Hazardous to the aquatic environment - Chronic Hazard, Category 1	H410

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Suspected of causing cancer. May cause an allergic skin reaction. Causes serious eye damage. May be fatal if swallowed and enters airways. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS05 GHS07 GHS08 GHS09

Signal word (CLP) : Danger

Contains : Permethrin; d-Tetramethrin

Hazard statements (CLP) : H304 - May be fatal if swallowed and enters airways.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H351 - Suspected of causing cancer.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read carefully and follow all instructions.
P261 - Avoid breathing spray, mist, vapours.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing/eye protection/face protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 - Do NOT induce vomiting.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P391 - Collect spillage.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

EUH-statements : EUH066 - Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

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

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 substance(s) are 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. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Permethrin (Active substance (Biocide))	CAS-No.: 52645-53-1 EC-No.: 258-067-9 EC Index-No.: 613-058-00-2	240 g/L	Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=1000)
Piperonyl butoxide (purity : 94%w/w) (Active substance (Biocide))	CAS-No.: 51-03-6 EC-No.: 200-076-7 EC Index-No.: 604-096-00-0 REACH-no: 01-2119537431-46	200 g/L	STOT SE 3, H335 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Alcohols, C9-11, ethoxylated - Imbentin-C/91/060	CAS-No.: 68439-46-3	11.5	Flam. Liq. Not classified Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
Distillates (petroleum), hydro- treated light; Kerosine– unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).]	CAS-No.: 64742-47-8 EC-No.: 265-149-8 EC Index-No.: 649-422-00-2	9.072	Asp. Tox. 1, H304
Tristyrylphenol ethoxylé	CAS-No.: 99734-09-5	7.7	Aquatic Chronic 3, H412
Calcium dodecylbenzene sulphonate	CAS-No.: 26264-06-2 EC-No.: 247-557-8	5.04 - 5.88	Skin Irrit. 2, H315 Eye Dam. 1, H318
d-Tetramethrin (Active substance (Biocide))	CAS-No.: 1166-46-7 EC-No.: 214-619-0 EC Index-No.: 607-728-00-3	40 g/L	Carc. 2, H351 Acute Tox. 4 (Oral), H302 STOT SE 2, H371 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
2-éthylhexane-1-ol substance with national workplace exposure limit(s) (BE); substance with a Community workplace exposure limit	CAS-No.: 104-76-7 EC-No.: 203-234-3	2.52 - 3.36	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of water/…. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). Wash contaminated clothing before reuse. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Immediately call a POISON CENTER/doctor. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor if you feel unwell. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after inhalation : May cause an allergic skin reaction.

Symptoms/effects after skin contact : May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact : Causes serious eye damage. Serious damage to eyes.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Risk of lung oedema.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Sand. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No fire hazard.

Explosion hazard : No direct explosion hazard.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. Do not enter fire area without proper protective equipment, including respiratory protection.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area. Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.

Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Section 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

Precautions for safe handling : Ensure good ventilation of the work station. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

Hygiene measures : Wash hands, forearms and face thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Keep in a cool, well-ventilated place away from heat.
Storage conditions	:	Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Store locked up.
Incompatible products	:	Strong bases. Strong acids.
Incompatible materials	:	Sources of ignition. Direct sunlight.
Packaging materials	:	Store always product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

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:
Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:
Avoid all unnecessary exposure.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Chemical goggles or safety glasses. Safety glasses

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Wear protective gloves.

8.2.2.3. Respiratory protection

Respiratory protection:
Wear appropriate mask

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

Other information:
Do not eat, drink or smoke during use.

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 available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Non flammable.
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	Not available
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	Not available
Solubility	:	Not available
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	Not available
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
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

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

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

Permethrin (52645-53-1)	
LD50 oral rat	480 – 554 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight
LC50 Inhalation - Rat	> 0.45 mg/l

d-Tetramethrin (1166-46-7)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 1.18 mg/l/4h

Piperonyl butoxide (purity : 94%w/w) (51-03-6)	
LD50 oral rat	5630 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5.9 mg/l air Animal: rat, Guideline: EPA OPP 81-3 (Acute inhalation toxicity)

Alcohols, C9-11, ethoxylated - Imbentin-C/91/060 (68439-46-3)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 1.6 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

Distillates (petroleum), hydro- treated light; Kerosine– unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).] (64742-47-8)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 798.1175 (Acute Oral Toxicity), Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: EPA OTS 798.1100 (Acute Dermal Toxicity), Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5.28 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), 95% CL: 0,42 -

Calcium dodecylbenzene sulphonate (26264-06-2)	
LD50 oral rat	1300 mg/kg bodyweight Animal: rat, Guideline: other:
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Remarks on results: other:
LC50 Inhalation - Rat	0.31 mg/l air Animal: rat, Animal sex: male, Remarks on results: other:

2-éthylhexane-1-ol (104-76-7)	
LD50 oral rat	≈ 2047 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	0.89 – 5.3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Remarks on results: other:

Skin corrosion/irritation : Not classified
Additional information : Based on available data, the classification criteria are not met

Permethrin (52645-53-1)	
pH	5.82 (5 – 7)

Piperonyl butoxide (purity : 94%w/w) (51-03-6)	
pH	5.8

Tristyrylphenol ethoxylé (99734-09-5)	
pH	5 – 7 (5%)

Serious eye damage/irritation : Causes serious eye damage.

Permethrin (52645-53-1)	
pH	5.82 (5 – 7)

Piperonyl butoxide (purity : 94%w/w) (51-03-6)	
pH	5.8

Tristyrylphenol ethoxylé (99734-09-5)	
pH	5 – 7 (5%)

Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Additional information : Based on available data, the classification criteria are not met
Carcinogenicity : Suspected of causing cancer.
Reproductive toxicity : Not classified
Additional information : Based on available data, the classification criteria are not met

Distillates (petroleum), hydro- treated light; Kerosine– unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).] (64742-47-8)	
NOAEL (animal/male, F0/P)	≥ 3000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 415 [One-Generation Reproduction Toxicity Study (before 9 October 2017)]

STOT-single exposure : Not classified
Additional information : Based on available data, the classification criteria are not met

d-Tetramethrin (1166-46-7)	
STOT-single exposure	May cause damage to organs (nervous system) (inhalation).

Piperonyl butoxide (purity : 94%w/w) (51-03-6)	
STOT-single exposure	May cause respiratory irritation.

2-éthylhexane-1-ol (104-76-7)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified
Additional information : Based on available data, the classification criteria are not met

Permethrin (52645-53-1)	
LOAEC (inhalation, rat, vapour, 90 days)	0.4363 mg/l/6h/day
NOAEC (inhalation, rat, vapour, 90 days)	0.2201 mg/l/6h/day

Piperonyl butoxide (purity : 94%w/w) (51-03-6)	
LOAEL (dermal, rat/rabbit, 90 days)	≥ 1000 mg/kg bodyweight Animal: rabbit, Guideline: EPA OPP 82-2 (Repeated Dose Dermal Toxicity -21/28 Days)
NOAEL (dermal, rat/rabbit, 90 days)	≥ 1000 mg/kg bodyweight Animal: rabbit, Guideline: EPA OPP 82-2 (Repeated Dose Dermal Toxicity -21/28 Days)

Alcohols, C9-11, ethoxylated - Imbentin-C/91/060 (68439-46-3)	
NOAEL (oral, rat, 90 days)	≥ 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

Distillates (petroleum), hydro- treated light; Kerosine– unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).] (64742-47-8)	
NOAEL (oral, rat, 90 days)	750 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (dermal, rat/rabbit, 90 days)	≥ 495 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

Calcium dodecylbenzene sulphonate (26264-06-2)	
LOAEL (oral, rat, 90 days)	200 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
LOAEL (dermal, rat/rabbit, 90 days)	286 mg/kg bodyweight Animal: rat, Animal sex: male
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (dermal, rat/rabbit, 90 days)	< 286 mg/kg bodyweight Animal: rat, Animal sex: male

2-éthylhexane-1-ol (104-76-7)	
NOAEL (oral, rat, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation, rat, gas, 90 days)	120 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Aspiration hazard : May be fatal if swallowed and enters airways.
Additional information : Based on available data, the classification criteria are not met

Piperonyl butoxide (purity : 94%w/w) (51-03-6)	
Viscosity, kinematic	27.075 mm²/s

Distillates (petroleum), hydro- treated light; Kerosine– unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).] (64742-47-8)	
Viscosity, kinematic	2.79 - 2.96 mm²/s

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : Based on the available ingredient data, there is no indication that the product meets any of the criteria for identification as an endocrine disruptor, as described in Regulations (EC) 1907/2006, (EU) 2017/2100 and (EU) 2018/605.

11.2.2. Other information

Potential adverse human health effects and symptoms : Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.
Ecology - water : Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

Permethrin (52645-53-1)	
LC50 - Fish [1]	0.0089 mg/l 96h, Poecilia reticulata

Permethrin (52645-53-1)	
LC50 - Fish [2]	0.145 mg/l 96h, Cyprinus carpio
LC50 - Other aquatic organisms [2]	> 0.011 mg/l 72h, Scenedesmus subspicatus
EC50 - Crustacea [1]	0.00064 mg/l 48h, Daphnia magna
EC50 - Other aquatic organisms [1]	0.0001874 mg/l Reproduction, Daphnia magna
EC50 72h - Algae [1]	> 0.011 mg/l Scenedesmus subspicatus
ErC50 algae	> 0.011 mg/l 72h, Scenedesmus subspicatus
NOEC (chronic)	0.0000047 mg/l Daphnia magna

d-Tetramethrin (1166-46-7)	
LC50 - Fish [1]	0.01 mg/l
EC50 - Crustacea [1]	0.11 mg/l

Piperonyl butoxide (purity : 94%w/w) (51-03-6)	
LC50 - Fish [1]	5.37 mg/l Test organisms (species): Lepomis macrochirus
EC50 - Crustacea [1]	510 µg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	3.89 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	2.09 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	3.89 mg/l Selenastrum capricornutum
LOEC (acute)	0.047 mg/l Daphnia magna
LOEC (chronic)	0.42 mg/l Pimephales promelas
NOEC (acute)	0.824 mg/l Selenastrum capricornutum
NOEC chronic fish	0.18 mg/l Test organisms (species): Pimephales promelas Duration: '35 d'
NOEC chronic crustacea	0.03 mg/l Daphnia magna

Alcohols, C9-11, ethoxylated - Imbentin-C/91/060 (68439-46-3)	
LC50 - Fish [1]	5 - 7 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	2.5 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	1.4 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

Calcium dodecylbenzene sulphonate (26264-06-2)	
LC50 - Fish [1]	1.74 mg/l Test organisms (species): other:
EC50 96h - Algae [1]	2736 mg/l Test organisms (species): other:
NOEC (chronic)	0.253 mg/l Test organisms (species): other: Duration: '30 d'

Calcium dodecylbenzene sulphonate (26264-06-2)	
NOEC chronic fish	0.23 mg/l Test organisms (species): other: Duration: '30 d'

2-éthylhexane-1-ol (104-76-7)	
LC50 - Fish [1]	17.1 mg/l Test organisms (species): Leuciscus idus melanotus
LC50 - Fish [2]	28.2 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	39 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	11.5 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	16.6 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

AEDEX EC	
Persistence and degradability	May cause long-term adverse effects in the environment.

Permethrin (52645-53-1)	
Persistence and degradability	Not biodegradable.

d-Tetramethrin (1166-46-7)	
Persistence and degradability	Not biodegradable.

Piperonyl butoxide (purity : 94%w/w) (51-03-6)	
Persistence and degradability	Not biodegradable.

Tristyrylphenol ethoxylé (99734-09-5)	
Persistence and degradability	Rapidly degradable

Alcohols, C9-11, ethoxylated - Imbentin-C/91/060 (68439-46-3)	
Persistence and degradability	Rapidly degradable

Distillates (petroleum), hydro- treated light; Kerosine– unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).] (64742-47-8)	
Persistence and degradability	Rapidly degradable

Calcium dodecylbenzene sulphonate (26264-06-2)	
Persistence and degradability	Rapidly degradable

2-éthylhexane-1-ol (104-76-7)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

AEDEX EC	
Bioaccumulative potential	Not established.

Permethrin (52645-53-1)	
BCF - Fish [1]	43 - 750

Permethrin (52645-53-1)	
Partition coefficient n-octanol/water (Log Pow)	4.67 25°C

d-Tetramethrin (1166-46-7)	
Partition coefficient n-octanol/water (Log Kow)	4.35

Piperonyl butoxide (purity : 94%w/w) (51-03-6)	
BCF - Fish [1]	91 – 380 mg/kg
Partition coefficient n-octanol/water (Log Pow)	4.8 (pH 6,5)

12.4. Mobility in soil

Permethrin (52645-53-1)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.66

Piperonyl butoxide (purity : 94%w/w) (51-03-6)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.57
Ecology - soil	Low mobility (soil).

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Disposal must be done according to official regulations.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Disposal must be done according to official regulations.

Additional information : Do not re-use empty containers.

Ecological waste information : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR)	:	UN 3082
UN-No. (IMDG)	:	UN 3082
UN-No. (IATA)	:	UN 3082
UN-No. (ADN)	:	UN 3082
UN-No. (RID)	:	UN 3082

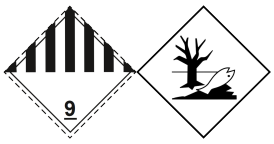
14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (IMDG)	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (IATA)	:	Environmentally hazardous substance, liquid, n.o.s.
Proper Shipping Name (ADN)	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (RID)	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport document description (ADR)	:	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Permethrin ; d-Tetramethrin ; Piperonyl butoxide (purity : 94%w/w)), 9, III, (-)
Transport document description (IMDG)	:	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, MARINE POLLUTANT
Transport document description (IATA)	:	UN 3082 Environmentally hazardous substance, liquid, n.o.s., 9, III
Transport document description (ADN)	:	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III
Transport document description (RID)	:	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III

14.3. Transport hazard class(es)

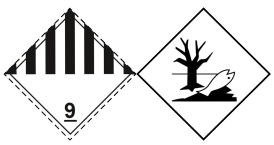
ADR

Transport hazard class(es) (ADR) : 9
Danger labels (ADR) : 9
:



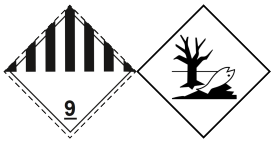
IMDG

Transport hazard class(es) (IMDG) : 9
Danger labels (IMDG) : 9
:



IATA

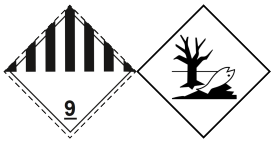
Transport hazard class(es) (IATA) : 9
Danger labels (IATA) : 9
:



ADN

Transport hazard class(es) (ADN) : 9
Danger labels (ADN) : 9

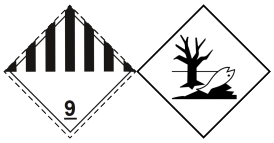
:



RID

Transport hazard class(es) (RID) : 9
Danger labels (RID) : 9

:



14.4. Packing group

Packing group (ADR) : III
Packing group (IMDG) : III
Packing group (IATA) : III
Packing group (ADN) : III
Packing group (RID) : III

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : M6
Special provisions (ADR) : 274, 335, 375, 601
Limited quantities (ADR) : 5l
Excepted quantities (ADR) : E1
Packing instructions (ADR) : P001, IBC03, LP01, R001
Special packing provisions (ADR) : PP1
Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T4
Portable tank and bulk container special provisions (ADR) : TP1, TP29
Tank code (ADR) : LGBV
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Special provisions for carriage - Loading, unloading and handling (ADR) : CV13
Hazard identification number (Kemler No.) : 90
Orange plates :

Tunnel restriction code (ADR) : -

Transport by sea

Special provisions (IMDG)	:	274, 335, 969
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	LP01, P001
Special packing provisions (IMDG)	:	PP1
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1, TP29
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-F
Stowage category (IMDG)	:	A

Air transport

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y964
PCA limited quantity max net quantity (IATA)	:	30kgG
PCA packing instructions (IATA)	:	964
PCA max net quantity (IATA)	:	450L
CAO packing instructions (IATA)	:	964
CAO max net quantity (IATA)	:	450L
Special provisions (IATA)	:	A97, A158, A197
ERG code (IATA)	:	9L

Inland waterway transport

Classification code (ADN)	:	M6
Special provisions (ADN)	:	274, 335, 375, 601
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E1
Equipment required (ADN)	:	PP
Number of blue cones/lights (ADN)	:	0

Rail transport

Classification code (RID)	:	M6
Special provisions (RID)	:	274, 335, 375, 601
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, LP01, R001
Special packing provisions (RID)	:	PP1
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special provisions (RID)	:	TP1, TP29
Tank codes for RID tanks (RID)	:	LGBV
Transport category (RID)	:	3
Special provisions for carriage – Packages (RID)	:	W12
Special provisions for carriage - Loading, unloading and handling (RID)	:	CW13, CW31
Colis express (express parcels) (RID)	:	CE8

Hazard identification number (RID) : 90

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 substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals): Permethrin (52645-53-1)

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 2024/590 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.

Biocide Regulation (528/2012)

Contains substance(s) listed on the Biocidal Products list (Regulation EU 528/2012 concerning the making available on the market and use of biocidal products)

Type of product (Biocide) :

Authorisation number :

Contains : Permethrin (24.00 % (pourcentage)); d-Tetramethrin (4.00 % (pourcentage)); Piperonyl butoxide (purity : 94%w/w) (20.00 % (pourcentage))

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

Germany

Air Quality Control (TA Luft)					
Category	Class	Applicable on	Local name	Max. mass flow	Max. mass concentration

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number

Abbreviations and acronyms:	
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. Not classified	Flammable liquids Not classified
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 2	Specific target organ toxicity – Single exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.

Full text of H- and EUH-statements:	
H371	May cause damage to organs.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

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.