TIMPEST ANTITARLO

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 4/7/2016 Revision date: 11/30/2022 Version: 0.2

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

1.1. Product identifier

Product form : Mixture
Product name : TIMPEST ANTITARLO

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

1.2.1. Relevant identified uses

Main use category : Biocide
Use of the substance/mixture : Anti-woodworm.
Impregnator for the protection of wood.

1.2.2. Uses advised against

Restrictions on use : Uses other than those indicated above.

1.3. Details of the supplier of the safety data sheet

MAZZONI MARIO EREDI
Via Isonzo , 28
34070 Mossa - Gorizia – Italia
T +39 (0)481 80487 - F +39 (0)481 809866
E-mail address of competent person responsible for the SDS : info@timpest.com

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]

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

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) :

GHS08 GHS09

Signal word (CLP) : Danger
Contains : Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics;
Permethrin_MAZZONI
Hazard statements (CLP) : H304 - May be fatal if swallowed and enters airways.
H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP) : P273 - Avoid release to the environment.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P331 - Do NOT induce vomiting.
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 : EUH208 - Contains Permethrin_MAZZONI(52645-53-1). May produce an allergic reaction.

2.3. Other hazards

The components of the mixture do not meet the identification criteria for PBT or vPvB substances, in accordance with Annex XIII of the REACH Regulation.
Contains no PBT/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 is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc. % w/w	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	CAS-No.: 64742-48-9: Naphtha (petroleum), hydrotreated heavy EC-No.: 918-481-9 REACH-no: 01-2119457273-39	≥ 95 – ≤ 100	Asp. Tox. 1, H304 EUH066
Permethrin_MAZZONI (Active substance (Biocide))	CAS-No.: 52645-53-1 EC-No.: 258-067-9 EC Index-No.: 613-058-00-2	≥ 0 – ≤ 0.5	Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Acute Tox. 4 (Oral), H302 (ATE=480 mg/kg bodyweight) Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=1000)

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.

First-aid measures after skin contact : Remove contaminated clothing (possibly shoes). Wash the affected part of the body with soap or mild detergent and rinse with plenty of water until the substance is completely removed (15-20 minutes). Notify the doctor and show him the label.

First-aid measures after eye contact : Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : 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 respiratory irritation.

Symptoms/effects after skin contact : May cause skin irritation.

Symptoms/effects after eye contact : May cause irritation and redness.

Symptoms/effects after ingestion : Risk of lung oedema.

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

Treat symptomatically. Based on the risk assessment of dangerous chemical agents, the competent physician will adopt the most appropriate medical monitoring protocol to protect the health status of workers, in accordance with Article 10 of Directive 98/24/CEE (Title IX of Legislative Decree 81 of 9 April 2008 and subsequent amendments).
No specific antidotes and contraindications are known.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : No unsuitable extinguishing media were identified.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Thermal decomposition or combustion may generate toxic and hazardous fumes of COx.

5.3. Advice for firefighters

Firefighting instructions : In case of fire: stop leak if safe to do so.
Protection during firefighting : 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

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Wear appropriate protective equipment (see section 8) to minimize exposure to the product.

6.1.2. For emergency responders

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

6.2. Environmental precautions

Avoid release to the environment. In case of accidental release or spillage, do not allow the substance to reach drains and surface or ground water. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer also to sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : 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

Storage conditions : Store in well-closed, properly labeled containers in a cool, dry and well-ventilated place. Protect from moisture. Keep away from heat sources and incompatible materials.

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

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9: Naphtha (petroleum), hydrotreated heavy)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	White spirit Type 3
IOEL TWA [ppm]	20 ppm
IOEL STEL	290 mg/m³
IOEL STEL [ppm]	50 ppm
Remark	Skin. (Year of adoption 2007)
Regulatory reference	SCOEL Recommendations
Poland - Occupational Exposure Limits	
Local name	Benzyna do lakierów
NDS (OEL TWA)	300 mg/m³
NDSCh (OEL STEL)	900 mg/m³
Regulatory reference	Dz. U. 2018 poz. 1286

8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	The measurement of substances in the workplace must be carried out with standardized methods (e.g. UNI EN 689:2019: Workplace atmospheres - Guide for assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy; UNI EN 482:2015: Workplace explosure - General requirements for the performance of procedures for the measurement of chemical agents) or, failing that, with appropriate methods.

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

TIMPEST ANTITARLO	
DNEL/DMEL (additional information)	
Additional information	not established
PNEC (additional information)	
Additional information	not established

Permethrin_MAZZONI (52645-53-1)	
PNEC (Soil)	
PNEC soil	> 0.0876 mg/kg wet weight
PNEC (STP)	
PNEC sewage treatment plant	0.00495 mg/l

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

8.2.2.1. Eye and face protection

Eye protection:
Wear protective tightly fitting glasse or protective visor (EN 166).

8.2.2.2. Skin protection

Skin and body protection:
Choose the appropriate protective medium according to the activity and exposure, eg. apron, boots, suitable clothing in accordance with EN 14605 in case of splashes.

Hand protection:
Gloves resistant to chemical agents as for the EN 374, parts 1, 2 e 3 and the European Directive 89/89/EEC.
The gloves material must be waterproof and stable against the product/substance/formulation.
Material : nitrile (nitrilic rubber), ipoallergenic.
Thickness : not inferior to 0.12 mm.

8.2.2.3. Respiratory protection

Respiratory protection:
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

8.2.2.4. Thermal hazards

Thermal hazard protection:
No additional information available.

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment. Prevent entry of the mixture into drains, surface water and ground water. Dispose of contaminated waters in accordance with national and local laws.Do not eliminate waste through the sewer system.

Other information:
Appropriate risk management measures must be adopted at the workplace. They have to be selected and applied, following the risks assessment carried out by the employer, in connection with the working activity (in according with Directive 98/24/EEC).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Not available
Appearance	:	Clear liquid.
Odour	:	Characteristics.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	-20 °C

Boiling point	:	160 °C
Flammability	:	Not applicable
Explosive limits	:	Not available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	> 61 °C
Auto-ignition temperature	:	260 °C
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	2,067 mm²/s at 20°C and 1,534 cSt at 40°C
Viscosity, dynamic	:	1,635 mPa.s at 20°C e 1,203 mPa*s at 40°C
Solubility	:	Water: 0.04 g/l
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	1 hPa at 20°C
Vapour pressure at 50°C	:	Not available
Density	:	0.751 g/m³ at 20°C
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

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	:	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	:	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	:	Not classified (Based on available data, the classification criteria are not met)

Additional information : Based on the result obtained from an acute oral toxicity test, TIMPEST ANTITARLO has a LD 50> 2000 mg/kg of body weight and can be included in class 5/NC of GHS classification
Naphtha (petroleum), heavy "hydrotreated"
Five male and five female rats were exposed to a mean nominal concentration of 7630 +/- 900 mg/m³ and a mean effective vapor concentration (measured by Miran) of 5610 +/- 300 mg/m³ of the sample from test F 101, for four consecutive hours. No lifetime effects were observed during the 14-day observation period. At autopsy, three of the five male rats had lung lesions that may be related to the test specimen. None of the animals died during the 14-day observation period. Based on the parameters of this study, the inhaled LC50 was greater than the mean nominal (gravimetric) concentration of 7630 +/- 900 mg/m³ and a mean effective vapor concentration (measured by Miran) of 5610 +/- 300 mg/m³. These results do not justify the classification of this substance as an acute inhalation toxicant according to the new regulation (EC) 1272/2008 concerning classification, labeling and packaging of substances and mixtures (CLP) or according to the directive 67/518 EEC for dangerous substances and directive 1999/45/EC for preparations.
Permethrin
Acute oral toxicity studies have an LD50 ranging from 480 - 1623 mg/kg bw/day. Thus, permethrin is classified as Xn: R22/H302; Harmful if swallowed.
Permethrin is not classified as toxic or harmful in contact with skin. Although inhalation studies indicate that the substance does not require classification for inhalation, permethrin is currently classified according to Directive 67/548 as Xn: R20; Harmful by inhalation, and Regulation (CE) No. 1727/2008 as H332: Harmful if inhaled. This classification is based on a study (Brammer A, 1989) referenced in PPP DAR. Combining the information present in the PPP DAR and those contained in the CAR of biocides, the following studies are available: a negative study conducted not according to the guidelines; a positive study according to the guidelines; one negative according to guidelines and an existing classification. The rationale of the RMS was to apply the precautionary principle and maintain the classification according to the above data.

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9: Naphtha (petroleum), hydrotreated heavy)	
LD50 oral rat	15000 mg/kg bw/day
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	≥ 3160 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 6100 mg/m³
ATE CLP (oral)	15000 mg/kg bodyweight

Permethrin_MAZZONI (52645-53-1)	
LD50 oral rat	480 – 1623 mg/kg bw/day
LD50 dermal rabbit	> 4000 mg/kg
LC50 Inhalation - Rat	> 23.5 mg/l

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
Additional information : Negative in an in vitro skin irritation test. Therefore TIMPEST ANTITARLO can be considered non-irritating to the skin.
In predisposed individuals it may cause slight irritation.
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics: Not irritating to skin (OECD 404)

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
Additional information : TIMPEST ANTITARLO was not irritating in an in vitro eye irritation test (BCOP). Consequently it is classified in the UN GHS Non-Category.
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics: Non-irritating to rabbit eyes (OECD 405).
Not irritating to the eye of rabbit (OECD 405).

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Additional information	:	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics is not considered to be a skin sensitizer.
Germ cell mutagenicity	:	Not classified (Based on available data, the classification criteria are not met)

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9: Naphtha (petroleum), hydrotreated heavy)

Additional information	The in vitro mutation test conducted on mammalian cells for the evaluation of the genotoxicity of catalytically cracked heavy naphtha (API 83-18) was positive. This evidence alone does not warrant the classification of heavy catalytic cracking naphtha as genotoxic under the new regulation (EC) 1272/2008 concerning classification, labeling and packaging of substances and mixtures (CLP) or under the Council Directive 67/518/EEC for dangerous substances and Directive 1999/45/EC for preparations. Gasoline vapor condensates were examined for their potential to induce chromosomal damage in rat bone marrow erythrocytes following inhalational administration at 2000 10000, or 20000 mg/m3 for 6 hours per day, 5 days per week for a total duration of at 4 weeks. Control animals were dosed with clean air, and positive control animals dosed intraperitoneally with a 40 mg/kg dose of cyclophosphamide in sterile water. Bone marrow was collected from 10 animals (5/sex) from each treatment and control group 24 hours after final administration. No statistically significant increases in the frequency of micronucleated immature erythrocytes were observed, and no substantial decreases in the percentage of immature erythrocytes were observed in the test material-treated dosage groups compared to the negative control values ($p>0.01$). The positive control material resulted in both a significant increase in the frequency of micronucleated immature erythrocytes and statistically significant decreases in the percentage of immature erythrocytes ($p < 0.001$). Gasoline vapor condensates were not considered genotoxic and clastogenic based on test conditions. This result does not guarantee the classification of petrol vapor condensate as a genotoxic according to the new regulation 1272/2008 concerning classification, labeling and packaging of substances and mixtures (CLP) or according to directive 67/518/EEC of the Council for dangerous substances and of the directive 1999/45/EC for preparations.

Permethrin_MAZZONI (52645-53-1)

Additional information	Permethrin was tested in a battery of in vitro and in vivo tests evaluating various endpoints of potential genotoxicity such as gene mutation and chromosomal aberration. In vitro testing included four bacterial reverse mutation assays, three mammalian gene mutation assays, one UDS assay, and one mammalian chromosomal aberration assay. In vivo tests include two mammalian bone marrow chromosomal aberration assays, a mammalian erythrocyte micronucleus assay, and a rodent assay. Permethrin did not show genotoxic potential in the standard test set. However, in one of the chromosomal aberration assays (Barrueco et al 1994) a positive result was found in the absence of S9. However, the study in question was not conducted in accordance with GLP and the protocol was not in accordance with OECD recommendations. Using the weight of evidence, the three unsuccessful in vivo studies, and the lack of a genotoxic profile for pyrethroids, RMS concluded that permethrin is not genotoxic.

Carcinogenicity	:	Not classified (Based on available data, the classification criteria are not met)

Additional information : Naphtha (petroleum), heavy "hydrotreated"
Unleaded petrol has been examined for its carcinogenic potential. The unleaded petrol was administered cutaneously, applied to the skin of 50 Swiss mice three times a week for two years. One negative control group was not treated while the two positive control groups were administered 0.05 mL of 0.05% BaP and 0.05 mL of 0.15% BaP in acetone. The test substance caused hyperkeratosis, dermal fibrosis, and skin ulceration in the treatment areas. The incidence of skin carcinomas, hepatic hemangiomas, pulmonary adenomas, and malignant lymphomas was not higher than the test substance for the negative control group. Unleaded gasoline showed no carcinogenic properties in this study. This result does not guarantee the classification of unleaded petrol as a carcinogen under the new regulation 1272/2008 relating to classification, labeling and packaging of substances and mixtures (CLP) or under directive 67/518/EEC of Council for Dangerous Substances and Directive 1999/45/EC for preparations.
Permethrin
The carcinogenicity and long-term toxicity of permethrin were studied in rats and mice. No variation in the incidence of tumors was observed in either species. In chronic toxicity studies, NOAELs of 50 mg/kg bw/day (McSheehy and Finn, 1980) and 50 mg/kg bw/day (Ishmael and Litchfield, 1988) were determined in rats for permethrin (25% cis/75% trans) and permethrin (40% cis/60% trans) respectively, while a NOAEL of 150 mg/kg bw/day was established for permethrin (40% cis/60% trans) in mouse (Ishmael and Litchfield 1988).
A NOAEL of 75 mg/kg was identified in the study by nel Baskaran, J. (2007), with no evidence of carcinogenicity. These results were consistent with other chronic toxicity studies in rats and mice.

Permethrin_MAZZONI (52645-53-1)	
NOAEL (chronic, oral, animal/male, 2 years)	50 mg/kg bodyweight in rats
Additional information	Carcinogenicity and long-term toxicity of permethrin have been investigated in rats and mice. No treatment related change was seen in the incidence of tumors in either species.

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
Additional information : Naphtha (petroleum), heavy "hydrotreated"
The generational reproductive study was conducted at dosages up to 20,000 mg/m3 approximately half of the lower lower explosion limit, and the highest level of safety for laboratory use. VRU gasoline did not produce any pathological changes in the reproductive organs. Furthermore, there were no differences in mating, fertility, birth weight, weight gain, and weaning survival. Furthermore, there were no differences in sperm count, sperm quality, oestrous cycling, and primordial oocyte quantification. Histopathological and kidney weight changes were observed at high doses (20,000 mg/m3) in males from the second generation. However, as the difference in weight was small (<6%), and found in only one male generation, it was not considered an adverse effect. Based on the data reported, the reproductive NOAEL in this study was defined as > 20000 mg/m3.
Unleaded gasoline condensed vapors were administered once daily to pregnant rats on gestation days 6-19 by vapor inhalation at doses of 0, 2653, 7960, and 23900 mg/m3 (24 rats/dose) to evaluate developmental toxicity. Maternal parameters (food consumption, body weight gain) were monitored during gestation and at the end of the study (clinical chemistry, abnormalities visible with macroscopic observation). These parameters were not negatively affected by the treatment. Reproductive parameters (number of implants, resorption and number of live fetuses) were not adversely affected by administration of the test product at any of the dose levels tested. No evidence of abnormal development was observed during external, skeletal, or visceral examinations of fetuses born to pregnant mothers exposed to treatment. Thus, unleaded gasoline condensed vapors did not produce any maternal toxicity, fetal toxicity, or developmental effects in rats. Based on the study results, the maternal and developmental NOAEL were both 23900 mg/m3. This evidence does not justify the classification of unleaded petrol condensed vapors as dangerous for development under the new regulation 1272/2008 relating to classification, labeling and packaging of substances and mixtures (CLP) or under the directive 67/518/EEC of the Council for dangerous substances and directive 1999/45/EC for preparations.
Permethrin: reproductive capacity was not affected. In a study (James, 1979), it was found that following exposure of rats to permethrin during their reproductive life, such exposure caused no significant maternal or pup-related effects up to a dose of 180 mg / kg of body weight day.

Permethrin_MAZZONI (52645-53-1)	
NOAEL (animal/male, F0/P)	180 mg/kg bodyweight
Permethrin	reproductive capacity was not affected. In a study (James, 1979), it was found that following exposure of rats to permethrin during their reproductive life, such exposure caused no significant maternal or pup-related effects up to a dose of 180 mg / kg of body weight day.

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
Additional information : Hydrocarbons C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics: based on studies of similarly structured substances, assumed not to cause organ damage following a single exposure.

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)
Additional information : Hydrocarbons C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics: Based on studies of substances with similar structures, it is assumed that they do not cause damage to organs through repeated exposure.

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9: Naphtha (petroleum), hydrotreated heavy)	
NOAEL (oral, rat, 90 days)	≥ 5000 mg/kg bodyweight/day similar to OECD Guideline 408
NOAEC (inhalation, rat, gas, 90 days)	≥ 10400 similar to OECD TG 413

Permethrin (52645-53-1)	
LOAEL (dermal, rat/rabbit, 90 days)	2000 mg/kg bodyweight/day
NOAEL (oral, rat, 90 days)	175 mg/kg bodyweight/day based on reversible liver effects
NOAEL (dermal, rat/rabbit, 90 days)	1000 mg/kg bodyweight/day
Additional information	Permethrin is of relatively low repeat dose toxicity with effects seen at sub-lethal doses being mainly transient and reversible in nature. The critical effect in rats includes increased absolute and rrelative liver weight, the target organ. The liver weights were associated with hepatocellular hypertrophy.

Aspiration hazard : May be fatal if swallowed and enters airways.
Additional information : The product mainly consists of hydrocarbons; considering the low viscosity and its composition, the mixture can be lethal in case of ingestion and penetration into the respiratory tract.

TIMPEST ANTITARLO	
Viscosity, kinematic	2,067 mm²/s at 20°C and 1,534 cSt at 40°C

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9: Naphtha (petroleum), hydrotreated heavy)	
Viscosity, kinematic	1.8 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'
Hydrocarbon	Yes

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The mixture contains substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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

11.2.2. Other information

Toxicokinetics, metabolism and distribution : Following an oral absorption study, permethrin undergoes rapid and high absorption in the body. The absorption and metabolism of permethrin is rapid and extensive, with only 3 - 6% of the administered dose not metabolized detectable in the faeces. Consequently, oral absorption is considered to be 100%. Absorption by inhalation was 100%. Absorption by inhalation is also assumed to be 100%.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : 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.

TIMPEST ANTITARLO	
LC50 - Fish [1]	44.105 mg/l Brachydanio rerio (zebra-fish)
EC50 - Crustacea [1]	0.286 mg/l Daphnia magna (Water flea)

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9: Naphtha (petroleum), hydrotreated heavy)	
LC50 - Fish [1]	1000 mg/l
EC50 72h - Algae [1]	1000 mg/l Pseudokirchneriella subcapitata

Permethrin (52645-53-1)	
LC50 - Fish [1]	0.0051 mg/l
EC50 - Crustacea [1]	0.00127 mg/l Daphnia magna
NOEC chronic crustacea	0.0000047 mg/l Daphnia magna

12.2. Persistence and degradability

TIMPEST ANTITARLO	
Persistence and degradability	TIMPEST ANTITARLO should be considered biodegradable in aerobic conditions.

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9: Naphtha (petroleum), hydrotreated heavy)	
Persistence and degradability	Readily biodegradable.

Permethrin (52645-53-1)	
Persistence and degradability	Permethrin as an isomeric mixture 25:75 cis:trans is not persistent in aquatic systems. However, a permethrin constituent (cis isomer) may have the potential to persist. Permethrin (25:75) does not meet P or vP criteria.

12.3. Bioaccumulative potential

Permethrin (52645-53-1)	
Bioaccumulative potential	The Log Pow for permethrin ranges from 4.6 to 6.1, indicating that it is a fat-soluble molecule with a potential for bioconcentration. However, the BCF values for fish and chironomid experiments range from 290 to 620 l / kg. Furthermore, these data indicate that residues are rapidly eliminated through purification with approximately 80% of residues purified within 14 days. Permethrin is not considered to meet criteria B or vB.

12.4. Mobility in soil

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9: Naphtha (petroleum), hydrotreated heavy)	
Additional information	substances have low solubility; they are assumed to float and migrate from water to soil and partition into sediment and suspended solids in wastewater; have low mobility in soil.

Permethrin (52645-53-1)	
Additional information	No significant data found.

12.5. Results of PBT and vPvB assessment

TIMPEST ANTITARLO
The components of the mixture do not meet the identification criteria for PBT or vPvB substances, in accordance with Annex XIII of the REACH Regulation.

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

No additional information available

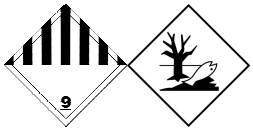
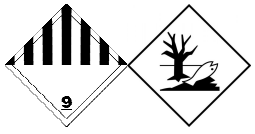
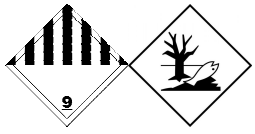
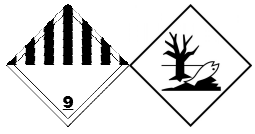
SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shipping name			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Environmentally hazardous substance, liquid, n.o.s.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport document description			
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s., 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III
14.3. Transport hazard class(es)			
9	9	9	9
			
14.4. Packing group			
III	III	III	III

ADR	IMDG	IATA	RID
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
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)	:	-
EAC code	:	•3Z

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, A215
ERG code (IATA)	:	9L

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

Other information, restriction and prohibition regulations : Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.
Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work (Official Journal L 183, 29/06/1989 P. 0001 – 0008) and following amendment and National reinforcements.
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

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 1005/2009 on substances that deplete the ozone layer)

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)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
Version: 0.1, dated 07/04/2016: First edition according to Regulation (EC) n. 2015/830;
Version 0.2, dated 03/25/2022: Changes compared to the previous version of the following sections: 1-16, according to Regulation 2020/878.

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)

Abbreviations and acronyms:	
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Data sources : Internal data.
ECHA registration dossier.
Assessment Report Permethrin, ECHA Database.
Permethrin PT18 Assessment report. Rapporteur: Ireland. April 2014.

Training advice : Adequately train workers potentially exposed to this substance on the basis of the contents of this safety data sheet. The training of workers must include contents, updates and duration according to the risk profiles assigned to the working sectors to which they belong, according to the procedures provided for by Legislative Decree 81/2008.

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
Asp. Tox. 1	Aspiration hazard, Category 1
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains Permethrin_MAZZONI(52645-53-1). May produce an allergic reaction.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Skin Sens. 1	Skin sensitisation, Category 1

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Asp. Tox. 1	H304	Calculation method
Aquatic Acute 1	H400	On basis of test data
Aquatic Chronic 1	H410	On basis of test data

Safety Data Sheet (SDS), EU

The document aims to provide guidance for appropriate handling and precaution of this product by qualified personnel or operating under the supervision of personnel trained in handling chemicals. The product should not be used for purposes other than those mentioned in section 1, unless they are given adequate written information received on how to handle the material.
The provider of this document cannot provide any warnings related to the dangers of using, interaction with other materials or chemicals or user's safe use of the product, the suitability of the product for which is applied or its proper disposal. The information above should not be considered a declaration or guarantee, either expressed or implied, of merchantability, fitness for a particular purpose, quality, or any other.