

Safety data sheet

according to Article 31 of Regulation No 1907/2006/EC (REACH)

Printing date: 22.12.2022

Version number: 14.0

Revision date: 22.12.2022

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

1.1 Product identifier

- Trade name: **TERPINOLENE 95**
- Common substance name: terpinolene
- Substance name according to REACH identification requirements: 4-isopropylidene-1-methylcyclohexene
- Substance name: p-mentha-1,4(8)-diene
- CAS number: 586-62-9
- EINECS number: 209-578-0
- REACH Registration number: 01-2119982325-32-0000

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

Relevant identified uses: production and distribution of the substance, intermediate for synthesis, fragrance substance, solvent, processing aid in polymerisation, industrial formulation, formulation and use of coatings, lubricants and greases, mining chemicals, metalworking fluids, agrochemicals, cleaning agents, oil and gas field drilling products, blowing agents, road and construction products, binders and release agents, fuels, functional fluids, rubbers, polymers, de-icing and anti-icing products, use in laboratory

1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier:
LES DERIVES RESINIQUES & TERPENIQUES (DRT)
30 rue Gambetta
BP 90206
40105 DAX CEDEX
FRANCE
Tel: 33-(0)5 58 56 62 00
Fax: 33-(0)5 58 56 62 40
Email: fds@drf.fr

1.4 Emergency telephone numbers

- NCEC (24/24 – 7/7)
Europe: +44 1235 239670
Global / English speaking countries: +44 1865 407333
Other countries: see section 16

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008:



GHS08 health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07 exclamation mark

Skin Sens. 1B H317 May cause an allergic skin reaction.

- Information concerning particular hazards for human and environment:

Effects on human health:

if swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey for 48 hours minimum).

(contd. on page 2)

DE

Safety data sheet

according to Article 31 of Regulation No 1907/2006/EC (REACH)

Printing date: 22.12.2022

Version number: 14.0

Revision date: 22.12.2022

Trade name: TERPINOLENE 95

(contd. of page 1)

- **Additional information:** Acute and chronic M factor = 1
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008:**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms:**



GHS07 GHS08 GHS09

- **Signal word:** Danger
- **Hazard statements:**
H317 May cause an allergic skin reaction.
H304 May be fatal if swallowed and enters airways.
H410 Very toxic to aquatic life with long lasting effects.
- **Precautionary statements:**
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents and container in accordance with local/regional/national/international regulations.
- **Additional information:** The product contains dipentene (CAS 138-86-3).

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:**
According to Annex XIII of REACH Regulation, the substance is not considered to be Persistent, Bioaccumulative and Toxic.
- **vPvB:**
According to Annex XIII of REACH Regulation, the substance is not considered to be very Persistent and very Bioaccumulative.
- **Determination of endocrine-disrupting properties**
The substance is not included in the list established in accordance with Article 59(1) of REACH regulation for having endocrine disrupting properties, and is not a substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/210056 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

- **3.1 Substances** monoconstituent
- **Identification number(s)**
- **CAS number:** 586-62-9
- **EINECS number:** 209-578-0
- **Description:** terpinolene (p-mentha-1,4(8)-diene) min 95%.

Impurities and stabilising additives (classified as hazardous):

CAS: 138-86-3	dipentene
EINECS: 205-341-0	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Chronic 3, H412

All impurities classified as very toxic to aquatic life categorie acute 1 have a M factor equal to 1.

(contd. on page 3)

DE

Safety data sheet

according to Article 31 of Regulation No 1907/2006/EC (REACH)

Printing date: 22.12.2022

Version number: 14.0

Revision date: 22.12.2022

Trade name: TERPINOLENE 95

(contd. of page 2)

- **Additional information:** For the wording of the listed hazard statements, refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· **After inhalation:**

Supply fresh air. If symptoms are experienced, get medical attention.
In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Immediately rinse with plenty of water.
Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Get medical attention if irritation or skin rash occurs.

· **After eye contact:**

Immediately rinse with plenty of water. Remove contact lenses, if present and easy to do. Hold eyelids apart and flush eyes with plenty of cool low-pressure water for 15 minutes. Consult an ophthalmologist.

· **After swallowing:**

Do NOT induce vomiting.
If the person is conscious, rinse out mouth with water.
Call for a doctor immediately.

· 4.2 Most important symptoms and effects, both acute and delayed Pulmonary effects if swallowed accidentally.

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

If swallowed accidentally, medical survey for 48 hours minimum.

SECTION 5: Firefighting measures

· 5.1 Suitable extinguishing agents

Foam
Fire-extinguishing powder
Carbon dioxide (CO₂)

· 5.2 Special hazards arising from the substance or mixture In case of fire, may release irritant and toxic fumes.

· 5.3 Advice for firefighters

· **Protective equipment:**

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus.

· **Additional information:** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate personal protective equipment. Keep unprotected persons away.
Provide adequate ventilation.

· 6.2 Environmental precautions

Do not allow product to reach soil, waterways, drains and sewers.
Inform the relevant authorities if the product has caused environmental pollution (soil, waterways, drains or sewers).

· 6.3 Methods and material for containment and cleaning up

Small spills:

Absorb spilled liquid with inert absorbent. Collect in an appropriate container properly labelled. Close it for disposal.

Large spills:

Stop spill if it can be done without danger. Dike. Pump as much liquid as possible with an explosion-proof pump or a hand pump. Absorb the remaining liquid with inert absorbent. Collect in an appropriate container properly labelled.
Close it for disposal.

(contd. on page 4)

Safety data sheet

according to Article 31 of Regulation No 1907/2006/EC (REACH)

Printing date: 22.12.2022

Version number: 14.0

Revision date: 22.12.2022

Trade name: TERPINOLENE 95

(contd. of page 3)

- **6.4 Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Wear appropriate personal protective equipment. Provide adequate ventilation in the workplace.
- **Information about fire - and explosion protection:**
Protect from heat.
Keep ignition sources away.
- **7.2 Conditions for safe storage**
If possible, store the drums or ecobulk under shelter in a cool and well ventilated place.
Keep container type drums or ecobulk tightly closed.
Keep away from sources of ignition.
Protect drums or ecobulk from high heat and direct sunlight.
- **7.3 Specific end use(s)** Only identified uses listed in section 1 are covered by exposure scenarios.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
 - terpenes
Austria: limit value - 8 hours = 560 mg/m³ (100 ppm)
Austria: limit value - short term = 560 mg/m³ (100 ppm)
Denmark: limit value - 8 hours = 25 ppm
Denmark: limit value - short term = 50 ppm
Sweden: limit value - 8 hours = 150 mg/m³ (25 ppm)
Sweden: limit value - short term = 300 mg/m³ (50 ppm)
Switzerland: limit value - 8 hours = 112 mg/m³ (20 ppm)
Switzerland: limit value - short term = 224 mg/m³ (40 ppm)
 - dipentene (dl-limonene - CAS 138-86-3)
Norway: limit value - 8 hours = 140 mg/m³ (25 ppm)
Sweden: limit value - 8 hours = 150 mg/m³ (25 ppm)
Sweden: limit value - short term = 300 mg/m³ (50 ppm)
- **DNELs**
- **DNEL (Derived No-Effect Level): Workers - Long-term exposure**
Systemic effects - inhalation: 3.6 mg/m³
Systemic effects - dermal: 0.52 mg/kg body weight/day
Local effects - dermal: 44 µg/cm²
- **DNEL (Derived No-Effect Level): General population - Long-term exposure**
Systemic effects - inhalation: 0.9 mg/m³
Systemic effects - dermal: 0.26 mg/kg body weight/day
Systemic effects - oral: 0.26 mg/kg body weight/day
- **PNECs**
- **PNEC (Predicted No-Effect Concentration) aqua (freshwater):** 0,634 µg/L
- **PNEC (Predicted No-Effect Concentration) aqua (marine water):** 0,063 µg/L
- **PNEC (Predicted No-Effect Concentration) Sewage Treatment Plant:** 0,2 mg/L
- **PNEC (Predicted No-Effect Concentration) sediment (freshwater):** 147 µg/kg sediment dry weight
- **PNEC (Predicted No-Effect Concentration) sediment (marine water):** 14.7 µg/kg sediment dry weight
- **PNEC (Predicted No-Effect Concentration) soil:** 29.1 µg/kg soil dry weight
- **PNEC (Predicted No-Effect Concentration) oral:** 10.31 mg/kg food

(contd. on page 5)

DE

Safety data sheet

according to Article 31 of Regulation No 1907/2006/EC (REACH)

Printing date: 22.12.2022

Version number: 14.0

Revision date: 22.12.2022

Trade name: TERPINOLENE 95

(contd. of page 4)

· **PNEC (Predicted No-Effect Concentration) aqua (intermittent releases):** 6,34 µg/L

· **Additional information:**

This sheet is based on the current valid lists for occupational exposure limit values at the time of its preparation. The DNELs and PNECs values are derived from the chemical safety assessment conducted for REACH.

Occupational exposure limits and DNELs are health-based but they are not necessarily set in the same way. The primary duty is to comply with risk management measures which enable to limit exposures as much as possible and to be in line with exposure reference levels.

· **8.2 Exposure controls**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Immediately remove all soiled and contaminated clothing.

Avoid contact with eyes and skin.

· **Personal protective equipment**

· **Respiratory protection:**

If ventilation is insufficient, use a breathing apparatus (filtering device with type A cartridge or insulating device with a source of fresh air independent of the ambient air).

· **Hand protection**

Protective gloves resistant to chemicals (standard EN 374-1). They should be replaced regularly and if there is any indication of degradation.

· **Eye/face protection**

Safety glasses (standard EN 166).

For qualifying operations with increased risk (eg: connection/disconnection of hoses, purges, sampling, etc.) wear safety glasses (standard EN 166) AND a face shield.

· **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

· **Physical state:**

Liquid

· **Colour:**

Colourless-slightly amber

· **Odour:**

Sweet pine odour

· **Odour threshold:**

Not determined

· **Change in condition**

· **Melting/freezing point:**

< -20°C [OECD 102 / Regulation (EC) No. 440/2008 / EU A1 test / ≈ 1 atm]

· **Boiling point or boiling range:**

194°C (985 hPa) [OECD 103 / Regulation (EC) No. 440/2008 / EU A2 test / Siwoloboff method]

· **Flammability:**

The substance is not ignitable

· **Lower and upper explosion limits**

· **Lower:**

No data available

· **Upper:**

No data available

· **Flash point:**

61°C [Regulation (EC) No. 440/2008 / EU A9 test / equilibrium method (setaflash method - closed cup) / 1 atm]

· **Auto-ignition temperature:**

220°C [Regulation (EC) No. 440/2008 / EU A15 test / spontaneous inflammation temperature of liquids and gases / 986 hPa]

· **Decomposition temperature:**

Not determined

· **pH value:**

Not applicable

· **Viscosity**

· **Kinematic viscosity:**

1,267 mm²/s < 7 mm²/s (25°C)

· **Dynamic viscosity:**

1,8 mPa.s (20°C - shear rate 583 s⁻¹); 1,1 mPa.s (40°C - shear rate 583 s⁻¹) [OECD 114 / rotational viscometer method]

(contd. on page 6)

DE

Safety data sheet

according to Article 31 of Regulation No 1907/2006/EC (REACH)

Printing date: 22.12.2022

Version number: 14.0

Revision date: 22.12.2022

Trade name: TERPINOLENE 95

(contd. of page 5)

- **Solubility**
- **in water:** 5,79 mg/L (mean of two experimental studies)
[7,03 mg/L (20°C) - OECD 123 / slow-stirring method
4,55 mg/L (20°C) - OECD 105 / column elution method]
- **Partition coefficient (n-octanol/water):** log Kow = 4,33 (mean of 3 studies)
[4,47 (25°C) - similar to OECD 107 / flask method
4,24 (37°C) - similar to OECD 117 / HPLC method / pH = 7,2
4,29 - QSAR / calculated value]
- **Vapour pressure:** 101 Pa (20°C); 133 Pa (25°C) [OECD 104 / Regulation (EC) No. 440/2008 / EU A4 test / static method]
- **Density and/or relative density**
- **Relative density:** 0,85 - 0,87 (20°C) [OECD 109 / Regulation (EC) No. 440/2008 / EU A3 test / oscillating densitometer]
- **Vapour density:** Not determined
- **Explosive properties:** The substance does not contain any chemical groups associated with explosive properties
- **Oxidising properties:** The substance does not contain any chemical groups associated with oxidising properties
- **Evaporation rate:** Not determined
- **9.2 Other information** No other data

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No data from specific reactivity tests are available for this product or this class of product.
- **10.2 Chemical stability**
Product stable under storage and handling conditions according to specifications (see section 7).
- **10.3 Possibility of hazardous reactions**
No hazardous reactions known except those with incompatible products listed in point 10.5.
- **10.4 Conditions to avoid** Keep away from heat and sources of ignition.
- **10.5 Incompatible materials** Oxidizing agents, strong acids.
- **10.6 Hazardous decomposition products** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD₅₀/LC₅₀ values relevant for classification:**

Oral	LD ₅₀	3 740 mg/kg (rat)
Dermal	LD ₅₀	> 4 300 mg/kg (rabbit)

The oral study was carried out according to a method similar to the OECD 401 Guideline.
The dermal study was carried out according to a method similar to the OECD 402 Guideline.

- **Skin corrosion/irritation:**
An in vitro irritation study was conducted with the substance on reconstructed human epidermis (OECD 439).
Classification criteria were not met.
- **Serious eye damage/irritation:**
The substance is not classified based on results from an eye irritation study conducted on rabbit according to OECD 405 Guideline: only reversible effects were observed.
- **Skin sensitisation:**
The substance is classified, category 1B, because it induced skin sensitisation effects in the murine Local Lymph Node Assay (OECD 429 - LLNA).
- **Mutagenicity/genotoxicity:**
Based on the results of the tests conducted with the substance, no genotoxic potential is expected:
- the substance was not mutagenic in a bacterial mutation test (OECD 471 - Ames test);

(contd. on page 7)

DE

Safety data sheet according to Article 31 of Regulation No 1907/2006/EC (REACH)

Printing date: 22.12.2022

Version number: 14.0

Revision date: 22.12.2022

Trade name: TERPINOLENE 95

(contd. of page 6)

- no genotoxic effects were observed with the substance in a chromosome aberration test in human lymphocytes (OECD 473). However, an equivocal result was obtained after exposing cells for 20 hours without metabolic activation S9. The toxicological significance of this observation was considered questionable. Therefore, an *in vitro* micronucleus test (OECD 487) was performed under similar experimental conditions (24-h exposure without metabolic activation, human lymphocytes). No biologically relevant increases in micronuclei were observed, supporting the absence of genotoxic potential;

- the substance was not mutagenic in a gene mutation test in Chinese hamster ovary cells (OECD 476).

· Carcinogenicity:

The product is not expected to be carcinogenic: no mutagenic effects were observed with the substance and there is no evidence from the repeated dose toxicity study that the substance is able to induce hyperplasia or pre-neoplastic lesions.

· Reproductive toxicity:

No toxic effects for reproduction are expected from the substance.

In a combined repeated dose and reproduction/developmental screening test conducted on rat according to OECD Guideline No. 422 (administration of the substance by diet), no effects were observed on mating performance, fertility and gestation length.

NOAEL (No Observed Adverse Effect Level) - systemic toxicity for females and males (P) = 161.5 and 294.6 mg/kg body weight/day respectively

NOAEL - reproduction toxicity, combined males and females = 294.6 mg/kg body weight/day

NOAEL - maternal and developmental toxicity = 356 mg/kg body weight/day

· Specific target organ toxicity - single exposure:

No specific target organ toxicity leading to classification was observed in the LD₅₀ determination studies.

· Specific target organ toxicity - repeated exposure:

The substance is not classified based on the following results.

A combined repeated dose and reproduction/developmental screening test was conducted on rat according to OECD Guideline No. 422. Daily administration of the substance by diet for 42 days to male and unmated female rats, at dose levels up to 300.8 mg/kg body weight/day, led to a reduction in body weight gain without identification of target organ.

NOAEL (No Observed Adverse Effect Level) - systemic toxicity for females and males = 161.5 and 294.6 mg/kg body weight/day respectively. Only effects considered as adaptative or specific to male rats were observed.

· **Aspiration hazard:** If swallowed accidentally, the product may enter the respiratory tract due to its low viscosity.

· Additional toxicological information:**· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

According to Regulation (EC) No 1272/2008, the substance is not considered to be CMR.

· 11.2 Information on other hazards**· Endocrine disrupting properties**

The substance is not included in the list established in accordance with Article 59(1) of REACH regulation for having endocrine disrupting properties, and is not a substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/210056 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information

· 12.1 Aquatic toxicity

The substance is classified as very toxic to aquatic life based on the results below.

EC₅₀ (72 h), algae (*Pseudokirchneriella subcapitata*): 0.692 mg/L (based on growth rate - measured concentration - OECD 201)

EC₁₀ (72 h), algae (*Pseudokirchneriella subcapitata*): 0.273 mg/L (based on growth rate - measured concentration - OECD 201)

EC₅₀ (48 h), daphnia (*Daphnia magna*): 0.634 mg/L (measured concentration - OECD 202)

LC₅₀ (96 h), fish (*Danio rerio*): 0.805 mg/L (measured concentration - OECD 203)

· Toxicity to aquatic microorganisms:

Sewage containing the substance can be treated by a municipal sewage treatment plant (taking into account the PNEC sewage treatment plant given in section 8).

Inhibition effects were observed on activated sludge (OECD 209).

EC₅₀ (3 h): 69 mg/L (respiration rate - nominal concentration - activated sludge - OECD 209)

EC₁₀ (3 h): 2 mg/L (respiration rate - nominal concentration - activated sludge - OECD 209)

(contd. on page 8)

DE

Safety data sheet
according to Article 31 of Regulation No 1907/2006/EC (REACH)

Printing date: 22.12.2022

Version number: 14.0

Revision date: 22.12.2022

Trade name: TERPINOLENE 95



(contd. of page 7)

- **12.2 Persistence and degradability**
The substance is readily biodegradable.
Degradation after 28 days: 81% (oxygen consumption - OECD 301 D test - river water sampled near a domestic wastewater treatment plant).
- **12.3 Bioaccumulative potential** No experimental data available.
- **12.4 Mobility in soil** No experimental data available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:**
According to Annex XIII of REACH Regulation, the substance is not considered to be Persistent, Bioaccumulative and Toxic.
- **vPvB:**
According to Annex XIII of REACH Regulation, the substance is not considered to be very Persistent and very Bioaccumulative.
- **12.6 Endocrine disrupting properties**
The substance is not included in the list established in accordance with Article 59(1) of REACH regulation for having endocrine disrupting properties, and is not a substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/210056 or Commission Regulation (EU) 2018/605.
- **12.7 Other adverse effects** No data available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods** National and regional regulations have to be adhered to.
- **Recommendation:** The product has to be disposed of in an authorised incinerator, according to regulation.
- **Uncleaned packaging**
- **Recommendation:** Packaging has to be sent to an authorised waste treatment facility, for recycling or disposal.

SECTION 14: Transport information

- **14.1 UN number or ID number**
· **ADR, IMDG, IATA** UN 3082
 - **14.2 UN proper shipping name**
· **ADR** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (terpinolene, dipentene)
· **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (terpinolene, dipentene), MARINE POLLUTANT
· **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (terpinolene, dipentene)
 - **14.3 Transport hazard class(es)**
· **ADR, IMDG, IATA**
- 

- **Class** 9 Miscellaneous dangerous substances and articles
 - **Label** 9
 - **14.4 Packing group**
· **ADR, IMDG, IATA** III
 - **14.5 Environmental hazards** Environmentally hazardous substance, liquid; Marine Pollutant
 - **Marine pollutant:** Symbol (fish and tree)
 - **Special marking (ADR):** Symbol (fish and tree)

(contd. on page 9)

Safety data sheet

according to Article 31 of Regulation No 1907/2006/EC (REACH)

Printing date: 22.12.2022

Version number: 14.0

Revision date: 22.12.2022

Trade name: TERPINOLENE 95

(contd. of page 8)

· Special marking (IATA):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles
· Danger code:	90
· EMS Number:	F-A,S-F
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable
· Transport/Additional information:	
· ADR	-
· Tunnel restriction code	-
· Classification code (letter/figure)	M6
· UN "Model Regulation"	UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (terpinolene, dipentene), 9, III

SECTION 15: Regulatory information

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

Regulation (EC) No 1907/2006 (REACH):

The product does not contain any of the substances included in the following lists

- Annex XIV (authorisation) / substances of very high concern (SVHC)

- Annex XVII (restrictions)

Directive 2012/18/EU:

Product fulfilling the criteria of hazard category E1 "Hazardous to the aquatic environment in category acute 1 or chronic 1 (H400/H410)".

· **15.2 Chemical safety assessment** A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Information provided in this safety data sheet is based on our experience and present knowledge. It is a description of safety requirements and data given on the product and cannot be considered as specifications. They shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Version** 14.0

· **Previous version:** 13.0 of 09/06/2022

· **Emergency telephone numbers (other countries):**

NCEC - In-Country Numbers (24/24 - 7/7)

Australia: +61 2 8014 4558 / 18000 74234

Bangladesh: +65 3158 1200

China: 400 120 6011

China (Mainland): +86 532 8388 9090

Czech Republic: +420 228 882 830

Denmark: +45 8988 2286

Finland: +358 9 7479 0199

Greece: +30 21 1198 3182

India: +65 3158 1198

India: 000 800 100 7479

Indonesia: 007 803 011 0293

Japan: +81 3 4578 9341

Malaysia: +60 3 6207 4347

New Zealand: +64 9 929 1483 / 0800 446 881

Norway: +47 2103 4452

Pakistan: +65 3158 1329

Philippines: +63 2 8231 2149

Singapore: +65 3165 2217

(contd. on page 10)

Safety data sheet

according to Article 31 of Regulation No 1907/2006/EC (REACH)

Printing date: 22.12.2022

Version number: 14.0

Revision date: 22.12.2022

Trade name: TERPINOLENE 95

(contd. of page 9)

South Africa: +27 21 300 2732
South Korea: +82 2 3479 8401
Sri Lanka: +65 3158 1195
Sweden: +46 8 566 42573
Taiwan: +886 2 8793 3212
Thailand: 001 800 120 666 751
Turkey: +90 212 375 5231
Vietnam: +84 28 4458 2388

Full text of H and EUH mentions indicated in sections 2 and 3:

H226: Flammable liquid and vapour
H304: May be fatal if swallowed and enters airways
H315: Causes skin irritation
H317: May cause an allergic skin reaction
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

Abbreviations and acronyms:

CLP: Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging
EC₅₀: Concentration which leads to a 50% reduction in treated organism responses compared to untreated organism responses (algae) or concentration which causes effects to 50% of the tested organisms (daphnids)
EC₁₀: Concentration which leads to a 10 % reduction in treated organism responses from untreated organism responses
LC₅₀: Lethal concentration for 50% of exposed animals
LD₅₀: Lethal dose for 50% of animals exposed by oral or dermal route
LLNA: Local Lymph Node Assay
NOAEL: No Observed Adverse Effect Level
OECD: Guidelines from the Organisation for Economic Co-operation and Development
PBT: Persistent, Bioaccumulative and Toxic substance
vPvB: very Persistent and very Bioaccumulative substance
SVHC: Substances of Very High Concern
Skin Sens. 1B: Skin sensitisation, Category 1B
Asp. Tox. 1: Aspiration hazard, Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Sources:

Literature and company data
REACH dossier data

Modified data compared to the previous version:

Change of emergency response service: National Chemical Emergency Centre (NCEC) (sections 1 and 16)

Annex:

on request at the following address, fds@drf.fr

End of the safety data sheet

DE