Bartoline Pure Turpentine

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 25/08/2023 Version: 1.0

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

1.1. Product identifier

Product name	:	Bartoline Pure Turpentine
Substance/Chemical name	:	turpentine, oil
EC-No.	:	232-350-7
CAS-No.	:	8006-64-2
EU REACH Registration Number	:	01-2119553060-53-XXXX

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

1.2.1. Relevant identified uses

Use of the substance/mixture	:	A cleaner and thinner for use with artists oil paints

1.2.2. Uses advised against

Restrictions on use	:	Not to be used for any other purpose than stated above

1.3. Details of the supplier of the safety data sheet

EU Supplier
Bartoline Ireland Limited
Unit 3D North Point House
North Point Business Park
New Mallow Road
Cork T23 AT2P
Ireland
+353212066441
info@bartoline.eu

1.4. Emergency telephone number

Emergency number	:	+44(0)1482 678710 8.30am - 4.45pm Monday to Friday (BST during DST, otherwise GMT) NHS 111 - General Public (24 Hour service)

Country	Organisation/Company	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)

Also, in the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 3	H226
Acute toxicity (oral), Category 4	H302
Acute toxicity (dermal), Category 4	H312
Acute toxicity (inhal.), Category 4	H332
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Aspiration hazard, Category 1	H304

Hazardous to the aquatic environment – Chronic Hazard, Category 2 H411
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS02 GHS07 GHS08 GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : H226 - Flammable liquid and vapour.
H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P102 - Keep out of reach of children.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective clothing, eye protection, face protection, protective gloves.
P301+P310+P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

This substance does not meet the PBT criteria of REACH regulation, annex XIII
This substance does not meet the vPvB criteria of REACH regulation, annex XIII
Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

This UVCB substance 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 %
This UVCB substance is not 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.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Unknown Or Variable Composition, Complex Reaction Products Or Of Biological Materials (UVCB)

Name	Product identifier	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Turpentine, oil	CAS-No.: 8006-64-2 EC-No.: 232-350-7 Index-No.: 650-002-00-6 EU REACH Registration No.: 01-2119553060-53-XXXX	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411

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

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical advice/attention. If breathing is difficult, trained personnel should give oxygen. In case of loss of consciousness, place the victim in the recovery position.

First-aid measures after skin contact : Take off contaminated clothing. Wash immediately with plenty of soap and water. Get medical attention if irritation persists after washing.

First-aid measures after eye contact : Remove contact lenses if easy to do. Immediately flush eyes thoroughly with water for at least 15 minutes. Get medical attention if symptoms are severe or persist after washing.

First-aid measures after ingestion : Rinse mouth out with water. Give water to drink if victim completely conscious/alert. Immediately call a POISON CENTER/doctor. Take immediately victim to hospital. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Artificial respiration and/or oxygen if necessary. Give milk instead of water if readily available. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Remove casualty to fresh air and keep warm and at rest.

Self-protection of the first aider : Wear recommended personal protective equipment (For further information refer to section 8: "Exposure controls/personal protection") if contact/exposure with the product is likely. Pay attention to self-protection!. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects : The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Symptoms/effects after inhalation : Harmful by inhalation.. May cause shortness of breath, tightness of the chest, a sore throat and cough. At high concentrations, the vapours may be irritating to the respiratory system. May have a narcotic effect at high concentrations. Other symptoms: Headache, dizziness, nausea, unconsciousness.

Symptoms/effects after skin contact : Harmful in contact with skin. Very irritating. May cause an allergic skin reaction in susceptible individuals.

Symptoms/effects after eye contact : Causes serious eye irritation, redness & pain.

Symptoms/effects after ingestion : Harmful if swallowed. Ingestion may cause nausea and vomiting. Ingestion is irritating to the respiratory tract and may cause damage to the central nervous system. Liquid with low viscosity, may result in aspiration into the lungs.

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 : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). Water spray.
Unsuitable extinguishing media : Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : The vapours are denser than air and may travel along the ground. Distance ignition possible. Flammable liquid and vapour.
Explosion hazard : In a fire or if heated, a pressure increase will occur and the container may burst
Hazardous decomposition products in case of fire : Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, oxides of nitrogen, various hydrocarbons, aldehydes and soot. These may be harmful or toxic if inhaled in confined spaces or at high concentrations.

5.3. Advice for firefighters

Precautionary measures fire : Avoid breathing vapours from fire. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Firefighting instructions : For containers exposed to flames, cool laterally with water, even after the fire is extinguished.
Protection during firefighting : Wear fire/flame resistant/retardant clothing. In confined space use self-contained breathing apparatus with a full face piece respirator operated in positive pressure mode. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incident.
Other information : Keep run-off water out of sewers and water sources. Containers close to fire should be removed or cooled with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection.
Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Keep unnecessary and unprotected personnel away from the spillage. Do not touch or walk on the spilled product. Wash thoroughly after dealing with a spillage. Eliminate all ignition sources. Stop leak if safe to do so.

6.1.2. For emergency responders

Protective equipment : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection.

6.2. Environmental precautions

Avoid release to the environment. Toxic to aquatic life with long lasting effects. Material insoluble in water. may spread in water systems. Do not discharge into drains or the environment. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

For containment : Eliminate sources of ignition. No open flames. No smoking. Stop leak if without risk. Move containers from spill area.
Methods for cleaning up : Stop leak if safe to do so. Absorb excess liquid spillage on inorganic adsorbent material such as fine sand, brick dust or other non-combustible material etc. Place spent adsorbent in sealed packages and contact specialist waste disposal contractor. Cover the spilled liquid product with foam to slow down evaporation. Use type. Alcohol resistant foam.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information on personal protection refer to section 8: "Exposure controls/personal protection". For further information on Disposal Consderations refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Eliminate all ignition sources if safe to do so. Use explosion-proof equipment. Containers must be properly grounded before beginning transfer. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid handling alongside Strong oxidising agents, acids, clays and mineral acids & Strong reducing agents. Avoid spilling product and keep away from drains

Hygiene measures : Do not eat, drink or smoke when using this product. After contact with skin, wash immediately and thoroughly with water and soap. Take off immediately all contaminated clothing and wash it before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Remove contaminated clothing and protective equipment before entering eating areas

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store tightly closed in a dry, cool and well-ventilated place. Store in original container. Keep locked up and out of reach of children. Keep tightly closed on a site suitable for flammable materials. Ensure adequate air circulation and fume extraction in storage and working areas. Keep under environmental temperature. Suitable packaging material; Original drums, alternative lacquer lined drums or lined bulk tank under nitrogen.

Incompatible products : Strong oxidising agents, acids, clays and mineral acids. Strong reducing agents.

Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage area : Do not store in carbon steel tanks.

7.3. Specific end use(s)

A cleaner and thinner for use with artists oil paints (see Section 1.2). Keep containers closed when not in use. Keep out of reach of children. Apply "common sense" measures when handling this product. Avoid all contact with skin and eyes.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Turpentine, oil (8006-64-2)	
United Kingdom – Occupational Exposure Limit (OEL)	
OEL TWA (8h)	566 mg/m³, 100 ppm (EH40/2005 – 4th Edition 2020)
OEL STEL (15min)	850 mg/m³, 150 ppm (EH40/2005 – 4th Edition 2020)
Republic of Ireland – Occupational Exposure Limit (OEL)	
OEL 8h	112 mg/m³, 20 ppm (Chemical Agents and Carcinogens Code of Practice 2021)
OEL STEL (15 min)	840 mg/m³, 150 ppm (Chemical Agents and Carcinogens Code of Practice 2021)

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

Turpentine, oil (8006-64-2)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1.17 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3.8 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0.417 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.674 mg/m³
Long-term - systemic effects, dermal	0.417 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	30 µg/l
PNEC aqua (marine water)	3 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	7.75 mg/kg dwt
PNEC sediment (marine water)	0.775 mg/kg dwt
PNEC (Soil)	
PNEC soil	1.53 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	4 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	6.6 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Use spark-/explosionproof appliances and lighting system. Preferably use engineering controls to keep exposures below the OEL or DNEL. Provide local exhaust or general room ventilation.

8.2.2. Personal protection equipment

Personal protective equipment:
Do not attempt to take action without suitable protective equipment. Appropriate engineering controls.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Chemical goggles or safety glasses

Eye protection			
Type	**Field of application**	**Characteristics**	**Standard**
Use splash goggles when eye contact due to splashing is possible	Droplet	With side shields	EN 166

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Wear Protective gloves. Can use nitrile gloves or viton (glove thickness > 0.55 mm, break through time > 480 min)

Other skin protection - Materials for protective clothing:
Wear suitable protective clothing as protection against splashing or contamination. For the greatest protection, clothing should include anti-static overalls, boots and gloves

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Wear respiratory protection.

Respiratory protection			
Device	**Filter type**	**Condition**	**Standard**
Wear respiratory protection	Type A - High-boiling (>65 °C) organic compounds, Type P2	Vapour protection	EN 405

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Do not allow into drains or water courses. Dispose of waste in accordance with environmental legislation.

Other information:
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless (or pale).
Appearance	:	Clear liquid.
Odour	:	Pine.
Odour threshold	:	Not available.
Melting point/Freezing point	:	- 60 ºC at 101.3 kPa
Boiling point	:	156 – 170 °C 94% Max. (ASTM D 233-13)
Flammability	:	Not available
Lower explosion limit	:	0.8% Volume
Upper explosion limit	:	6% Volume
Flash point	:	34 – 38 °C (ASTM D 56)
Auto-ignition temperature	:	> 250 °C
Decomposition temperature	:	Not available
pH	:	Not available.
Viscosity, kinematic	:	Not available
Viscosity, dynamic	:	1.30 mPa.s at 25 ºC
Solubility	:	Water: < 0.1 %
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	519 Pa @ 20°C
Vapour pressure at 50 °C	:	3623 Pa at 50 ºC

Density	:	Not available
Relative density	:	0.855 – 0.868 @ 25 °C (ASTM D233-11) 0.864 – 0.867 @ 20 °C
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 Information Available

9.2.2. Other safety characteristics

VOC content	:	855 – 868 g/L
Bulk density	:	Not applicable.
Evaporation Rate	:	Not available
Volatility	:	Volatile By Vol. (%): 100

SECTION 10: Stability and reactivity

10.1. Reactivity

May react exothermically with reducing agents to release hydrogen gas.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use. However, prolonged or excessive exposure to heat and/or air may cause non-hazardous decomposition and/or oxidation of the substance

10.3. Possibility of hazardous reactions

Release of heat and hydrogen gas upon reaction with reducing agents.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Strong oxidising agents, acids, clays and mineral acids. Strong reducing agents.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	:	Harmful if swallowed.
Acute toxicity (dermal)	:	Harmful in contact with skin.
Acute toxicity (inhalation)	:	Harmful if inhaled.

Turpentine, oil (8006-64-2)	
LD50 dermal (read across from impure (+)-pin-2(3)-ene, CAS: 7785-70-8)	> 2000 mg/kg bodyweight Animal: rat, However harmful in contact with skin (from Part 3 of Annex VI from CLP)
LC50 Inhalation (vapour)	13.7 mg/l air Animal: rat, Animal sex: male, Exposure: 4h, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity).
LD50 oral	> 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method) & EU Method B.1 (Acute Toxicity (Oral))

Skin corrosion/irritation	:	Causes skin irritation. pH: Not available.

Turpentine, oil (8006-64-2)
Read across from (-)-beta pinene which is a main component in the UVCB Turpentine, oil (8006-64-2): Not irritating (% viability < 50%), Method: *in-vitro*, Guideline: Human epidermis model EPISKIN

Serious eye damage/irritation : Causes serious eye irritation.
pH: Not available.

Turpentine, oil (8006-64-2)
Read across from Camphene (CAS; 79-92-5): Irritating (based on seveirty from mean scores and no signs of irreversble damage), Animal: Rabbit, Guideline: OECD Guideline 405 (Acute Eye Irritation/Corrosion)

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Turpentine, oil (8006-64-2)
Read across from (-)-beta pinene which is a main component in the UVCB Turpentine, oil (8006-64-2): Positive result for skin sensitisation (showed that beta-pinene induced delayed contact hypersensitivity in the murine Local Lymph Node Assay), Animal: mouse, Guideline: OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
In a study performed to assess the contact sensitization potential of turpentine by maximization test in humans, panels of 25 healthy adult males were induced with five exposures of dermal dose of 50% of turpentine in petrolatum for 48 hours using an occlusive patch followed by challenge dose of 20%. The challenge reaction was read immediately after removal of the 48 hour patch and again in another two days. An evident erythema was considered a minimum positive response. Sensitization potential was rated according to grading system as described in report A total of 18 out of 25 subjects showed positive reaction to sensitization during the study

Germ cell mutagenicity : Based on available data, the classification criteria are not met

Turpentine, oil (8006-64-2)
Negative Result, Method; *in-vitro*, Guideline: OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Negative Result, Method; *in-vitro*, Guideline: OECD Guideline 476 (In Vitro Mammalian Cell Gene Mutation Test)
Negative Result, Method; *in-vitro*, Guideline: OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)

Carcinogenicity : Based on available data, the classification criteria are not met

Turpentine, oil (8006-64-2)
In investigations on substance specific mutagenicity (in vitro) as well as in repeated dose toxicity studies (oral route), neither genotoxicity nor an indication for neoplastic lesions was observed.

Reproductive toxicity : Based on available data, the classification criteria are not met

Turpentine, oil (8006-64-2)	
So far no reproductive effects have been seen. Administration: oral, Animal: rat, Guideline: OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study). Study is ongoing.	
NOAEL – oral	> 250 mg/kg/bodyweight/day, Animal: rabbit, Adverse effects: no fetal abnormalities and no overall developmental toxic effects observed, Guideline: OECD Guideline 414 (Prenatal Developmental Toxicity Study)

STOT-single exposure : Data Lacking

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

Turpentine, oil (8006-64-2)	
So far no reproductive effects have been seen. Administration: oral, Animal: rat, Guideline: OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study). Study is ongoing.	
NOAEL – oral	942 mg/kg/bodyweight/day for males & 1033 mg/kg/bodyweight/day for females, Effects observed: increased in organ weights, decrease in food consumption, haematological effects such as lower mean red cell distribution, lower eosinophil count, clinical biochemical effects such as increase in blood phosphorous and behaviour effects. Guideline: OECD Guideline 414 (Prenatal Developmental Toxicity Study)

Aspiration hazard : May be fatal if swallowed and enters airways.

Turpentine, oil (8006-64-2)
Presents aspiration hazard (from Part 3 of Annex VI from CLP)

11.2. Information on other hazards

11.2.1 Endocrine Disrupting Properties

This UVCB substance 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 %
This UVCB substance is not 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.

11.2.2 Other Information
No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Based on available data, the classification criteria are not met
Hazardous to the aquatic environment, long–term (chronic) : Toxic to aquatic life with long lasting effects.

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics (926-141-6)	
LL50 96h - Fish	29 mg/L Test organisms (species): Danio rerio, Guideline: OECD Guideline 203 (Fish, Acute Toxicity Test)
EL50 48h - Crustacea	8.8 mg/L Test organisms (species): Daphnia magna, Guideline: OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
EL50 72h – Algae	17.1 mg/L Test organisms (species): Desmodesmus subspicatus, Guideline: OECD Guideline 201 (Alga, Growth Inhibition Test)
EL10 32d - Fish	0.43 mg/L Guideline: OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test) (The chronic toxicity to fish was determined using a validated QSAR for the Mechanism of Action (MechoA) in question (MechoA 1.1, i.e. non-polar narcosis) (Bauer et al., 2018). The QSAR is based on validated data for a training set of 27 chemicals derived from 32-day test on fish, for which the concentrations of the test item had been determined by chemical analyses over the test period.)
NOEC 21d - Crustacea	> 0.3 mg/L Test organisms (species): Daphnia magna, Guideline: OECD Guideline 211 (Daphnia magna Reproduction Test) & EU Method C.20 (Daphnia magna Reproduction Test)
NOELR 72 h - Algae	10 mg/L Test organisms (species): Raphidocelis subcapitata, Guideline: OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

No additional information available

Turpentine, oil (8006-64-2)	
Persistence and degradability	68% degradation (O_2 Consumption) at 28 d Guideline: OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) Conclusion; Turpentine, oil (8006-64-2) is readily biodegradable

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT criteria of REACH regulation, annex XIII
This substance does not meet the vPvB criteria of REACH regulation, annex XIII
Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

12.6. Endocrine disrupting properties

This UVCB substance 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 %
This UVCB substance is not 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

The UVCB Substance, as of yet, has no other known adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

This product is classified as Hazardous Waste as it is supplied.

Waste generation should be avoided or minimised where possible. When handling waste, the safety precautions applying to handling of the product should be considered. Label the containers containing waste and remove from the area as soon as possible. Label the containers containing waste contaminated material and remove from the area as soon as possible.
Product disposal to sewer should be avoided, if possible, and only be carried out after treatment, and under relevant rules, e.g. Consent to Discharge. Where wastes undergo disposal, external recovery or treatment, it must comply with the requirements of environmental protection, waste disposal legislation and any local authority requirements. If wastes undergo incineration, they must be suitable for it at an approved facility.
Used packaging waste should be reused or recycled, if uncontaminated. Contaminated packaging should be cleaned on site, if appropriate facilities exist, including any relevant rules or permits, or offsite by a specialist provider. Contaminated packaging which cannot be safely cleaned must be treated in the same way as the product, and should only be disposed of as a last resort.

List of waste code is 20 01 13* - solvents. These codes have been assigned based on the actual composition of the product as supplied. Seek advice from a hazardous waste specialist for waste classification.

SECTION 14: Transport information

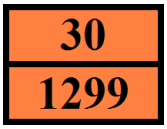
In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1299	UN 1299	UN 1299	UN 1299	UN 1299
14.2. UN proper shipping name				
TURPENTINE	TURPENTINE	Turpentine	TURPENTINE	TURPENTINE
Transport document description				
UN 1299 TURPENTINE, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1299 TURPENTINE, 3, III, MARINE POLLUTANT	UN 1299 Turpentine, 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1299 TURPENTINE, 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1299 TURPENTINE, 3, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
3	3	3	3	3

ADR	IMDG	IATA	ADN	RID
				
14.4. Packing group				
III	III	III	III	III
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	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	F1
Limited quantities (ADR)	:	5l
Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	:	P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T2
Portable tank and bulk container special provisions (ADR)	:	TP1
Tank code (ADR)	:	LGBF
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	3
Special provisions for carriage - Packages (ADR)	:	V12
Special provisions for carriage - Operation (ADR)	:	S2
Hazard identification number (Kemler No.)	:	30
Orange plates	:	
Tunnel restriction code (ADR)	:	D/E

Transport by sea

Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P001, LP01
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T2
Tank special provisions (IMDG)	:	TP2
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-E
Stowage category (IMDG)	:	A
Flash point (IMDG)	:	35°C c.c.
Properties and observations (IMDG)	:	Colourless liquid. Flashpoint: 35°C c.c. Mixture of resin and volatile oils. Immiscible with water.

Air transport

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y344
PCA limited quantity max net quantity (IATA)	:	10L
PCA packing instructions (IATA)	:	355
PCA max net quantity (IATA)	:	60L

CAO packing instructions (IATA)	:	366
CAO max net quantity (IATA)	:	220L
ERG code (IATA)	:	3L

Inland waterway transport

Classification code (ADN)	:	F1
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E1
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	VE01
Number of blue cones/lights (ADN)	:	0

Rail transport

Classification code (RID)	:	F1
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, LP01, R001
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T2
Portable tank and bulk container special provisions (RID)	:	TP1
Tank codes for RID tanks (RID)	:	LGBF
Transport category (RID)	:	3
Special provisions for carriage – Packages (RID)	:	W12
Colis express (express parcels) (RID)	:	CE4
Hazard identification number (RID)	:	30

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)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

VOC Directive (2004/42)

VOC content : 855 – 868 g/l

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 done for this substance.

SECTION 16: Other information

Indication of changes:
Due to change of classification database the revision numbering has been reset. You should therefore look at the revision date rather than the revision number to ensure you have the most up to date version.

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 disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1

Key literature references and sources for data

- ECHA (European Chemicals Agency). http://echa.europa.eu/, - REACH disseminated dossiers of substance included in Section 3
- Supplier’s Safety documents

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.