

SAFETY DATA SHEET



In accordance with Regulation (EC) no. 1907/2006, Annex II (as amended by Regulation (EU) 2020/878)

Bio oil

Version: 2.0/Eng

Revision date: 09/06/2025

Supersedes: 08/07/2022

1 NAME OF SUBSTANCE/MIXTURE AND FIRM/COMPANY

1.1 Product designation

Product name Bio oil

1.2 Relevant identified uses of the substance or mixture and non-recommended uses

Identified uses: *Use to generate energy: use of fuel*

1.3 Further details about safety data sheet provider

Name: SunPine AB
Address: Box 76
 941 22 Piteå
 Sweden
Telephone number: 0911-23 28 00
E-mail address of publisher sds@sunpine.se
responsible for safety data
sheet:

1.4 Telephone number in emergency situations

Emergency telephone number in Sweden: 112
Telephone number of the Poisons Information Centre: 010-456 67 00
On duty off hours: Yes

2 HAZARDOUS PROPERTIES

2.1 Classification of substance or mixture

Classified in accordance with Regulation (EC) no. 1272/2008:

This product does not comply with the criteria for and hazard classification according to Regulation (EC) no. 1272/2008 for the classification, labelling and packaging of substances and mixtures.

A safety data sheet is provided however as there is an occupational hygienic limit value for oil mist, see section 8.1.

2.2 Labelling details

Labelling in accordance with Regulation (EC) no. 1272/2008

Labelling not obligatory.

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2.3 Other hazards

The product does not fulfil the PBT and vPvB criteria in accordance with Annex XIII to REACH.

3 COMPOSITION/INFORMATION ABOUT COMPONENTS

3.2 Mixtures

Classification of components in accordance with the CLP Regulation (1272/2008/EC):

Hazardous substance	Conc. (w/w %)	CAS/ EC/ REACH-reg no.	Hazard class and category codes	Hazard statements
Tall oil pitch*	≥25 - ≤97%	8016-81-7/ 232-414-4/ 01-2119489491-29	Not classified	Not classified

* Note: The product includes mixed vegetable fatty acids (3-75 %). TOP is a UVCB substance¹ and consists mainly of fatty acids, rosin acids, as well as polymeric acids and polymeric neutral components.

4 FIRST-AID MEASURES

4.1 Description of First-aid measures

If inhalation occurs: Move exposed person to fresh air and keep person at rest to facilitate breathing. Seek medical attention in case of persisting adverse health effects.

If skin contact occurs: Remove contaminated clothing and shoes and dispose of them safely. Wash contaminated skin with plenty of water and soap.

If eye contact occurs: Gently flush eyes with tempered water for 15 minutes. Lift the upper and lower eyelids. Check for and remove any contact lenses if this is not difficult. Continue to rinse. Get specialist medical attention if there are any persisting symptoms.

If ingestion occurs: Wash out mouth carefully with plenty of water. Do not induce vomiting. Seek medical attention immediately if vomiting or serious coughing occurs, or if more than an insignificant amount has been swallowed.

4.2 The most important symptoms and effects, both acute and delayed

Inhalation: If heated, the resulting fumes and vapours can easily irritate the upper respiratory tracts and the lungs, causing coughing and discomfort to the throat.

¹ Substances with unknown or varying compositions, complex reaction products or biological material.

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Skin contact: Does not cause irritation immediately. Repeated or persistent contact with the skin can result in degreasing of the skin, which may cause dermatitis.

Contact with eyes: Does not irritate the eyes.

Ingestion: Can cause stinging in the mouth and throat. Ingestion of large quantities can cause nausea and vomiting.

4.3 Indication of any immediate medical attention and special treatment required

Treat symptomatically. Seek medical attention if unsure or in case of persisting adverse health effects. Never give anything by mouth to an unconscious person.

5 FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable media:

Powder, foam, CO2 and water spray.

Unsuitable media:

Do not use powerful water jet as this can cause the fire to spread.

5.2 Specific hazards that the substance or mixture can cause

In the outbreak of fire, irritating, toxic and offensive gases, for instance carbon oxides and sulphur oxides are produced.

5.3 Advice for firefighters

Wear full-body protective clothing and breathing masks when fighting fires. Wear full-body protective clothing.

Other

Eliminate all fire/ignition sources. Containers in the vicinity of fires should be moved immediately or cooled with water. Ensure the water does not come into contact with the seat of the fire. The product is not considered flammable but may burn at high temperatures.

6 MEASURES IN THE EVENT OF UNINTENTIONAL EMISSIONS

6.1 Personal precautions, protective equipment and emergency measures

Do not get on skin or in the eyes. Use protective gloves and other necessary protective equipment. Ensure adequate ventilation.

6.2 Environmental precautions

Prevent emissions from coming into contact with waterways, sewage and soil. Contact the emergency

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services in the case of larger spills. Local authorities must be informed if significant spills cannot be contained.

6.3 Methods and materials for containment and cleaning up

Absorb spills with a suitable inert absorbent (e.g. sand, active clay, multisorb). Collect spillage and place it in a clean, labelled container for disposal. Clean the spill area with large amounts of water and cleaning agent.

6.4 Reference to other sections

See section 8 for information on personal protection equipment and section 13 for disposal information.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from sources of heat, sparks, open flames or hot surfaces. Take precautionary measures against electrostatic discharges. Avoid persistent or repeated skin contact. Do not breathe vapours, mist, fumes. Remove and wash contaminated clothing before reuse. Ensure adequate ventilation. Smoking is prohibited.

7.2 Conditions for safe handling, including any incompatibilities

Recommended storage temperature is above 60 degrees. Store in a tightly closed container. Containers used to transfer the product must be clearly labelled.

Store in separate container away from heat and ignition sources. Containers must be made of metal or high-density polyethylene (HDPE).

7.3 Specific end use(s)

No data available.

8 LIMITATION OF EXPOSURE/PERSONAL PROTECTION

8.1 Control parameters

Hygienic limit value, Sweden

Substance	Level limit value		Short-time value		Source	Year
	mg/m ³	ppm	mg/m ³	ppm		
Oil mist, including oil fumes	1	-	3	-	AFS 2023:14 Note. V	1990

Note V: Indicative short-term exposure limit to be used as a recommended maximum value that should not be exceeded.

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8.2 Limitation of exposure

Technical measures:

Keep exposure at all times to a minimum through adequate ventilation.

Eye/face protection:

Use goggles if there is a splash risk. Install an eye washing station in the workplace.

Dermal protection/Protective gloves:

Use protective gloves if there is a risk of direct contact or splashes. Use chemical-resistant protective gloves that comply with EN 374. It is recommended to use a glove material made of nitrile rubber or polyvinyl alcohol (PVA) with a breakthrough time greater than four hours.
Use protective clothing if there is a risk of direct contact.

Respiratory protection:

Type A gas filters should be used if there is a risk of inhaling vapours, fumes and mist (e.g. when cleaning, working in enclosed spaces and tanks).

Limitation of environmental exposure:

Collect spillage. Prevent dispersal of spilled materials to waterways, drains and sewers and pollution of soil and vegetation.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	Brown	
Odour:	Weak characteristic	
Odour threshold:	Not applicable	
pH:	Not applicable	
Melting point/freezing point:	Not applicable	
Initial boiling point and boiling range:	> 300 °C	Not specified
Flash point:	> 100 °C	Not specified
Evaporation rate:	Not applicable	
Flammability:	Not flammable	
Lower and upper explosive (flammable) limits:	Not applicable	
Vapour pressure:	TOP: 0.002 Pa (25°C)	Not specified
Vapour density:	Not applicable	
Relative density:	TOP: 1.002 (20°C) MVF*: 920 kg/m ³ (bulk, 40 °C)	Not specified
Solubility in water:	Not soluble in water	Not specified

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Partition coefficient: n-octanol/water:	Not applicable	
Auto-ignition temperature:	>300°C	Not specified
Decomposition temperature:	Not applicable	
Viscosity:	MVF*: 42 mm ² /s (40°C)	Not specified
Explosive properties:	Not explosive	
Oxidising properties:	Not oxidising	

9.2 Other information

* MVF = Mixed Vegetable Fatty Acids
Pour point of mixed vegetable fatty acids: 18–25 °C
Ash content, wt % tall oil pitch: < 0.2
Water content, wt % tall oil pitch: < 0.1
Dynamic viscosity of tall oil pitch: 30–45 mPa·s (50 °C)
Surface tension of tall oil pitch: 64.9 mN/m (OECD 115)

10 STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions regards use and storage.

10.2 Chemical stability

Stable under normal conditions regards use and storage.

10.3 Possibility of hazardous reactions

May react with strong oxidising agents.

10.4 Conditions to avoid

Avoid overheating, heat and ignition sources.

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

Incomplete combustion/thermal decomposition generates carbon oxides, nitrogen oxides (NO_x), sulphur oxides and irritating smoke.

11 TOXICOLOGICAL INFORMATION

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11.1 Information on toxicological effects

a) Acute toxicity

The product is not classified as acute toxic. The below values are for Tall Oil Pitch (TOP):

LD50 Oral: >2,000 mg/kg bw (rat) (OECD 425)

LD50 Dermal: >2,000 mg/kg bw (rat) (OECD 402)

b) Skin corrosion/irritation

The product is not considered to be corrosive/irritating to skin according to the OECD 404 Test Guideline (TOP).

c) Serious eye damage/irritation

The product is not considered to be corrosive/irritating to eyes according to the OECD 405 Test Guideline (TOP).

d) Respiratory - skin sensitisation

The product is not considered to be a skin sensitizer according to the OECD 406 Test Guideline (TOP).

e) Germ cell mutagenicity

The product is not considered to be mutagenic according to the OECD 473 Test Guideline (TOP).

f) Carcinogenicity

The product is not considered to cause cancer.

g) Reproductive toxicity

The product is not classified for reproductive toxicity.

h) Specific target organ toxicity (single exposure)

The product is not considered to cause organ damage through single exposures.

i) Specific target organ toxicity (repeated exposure)

The product is not considered to cause organ damage through long-term or repeated exposures.

j) Aspiration hazard

The product is not considered to cause aspiration toxicity.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

No information available

11.2.2 Other information

No other information available

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12 ECOLOGICAL INFORMATION

12.1 Toxicity

The product is not classed as toxic for the environment. The below values are for Tall Oil Pitch (TOP):

Acute toxicity for fish:

LL50, 96h, *Danio r.* (OECD 203): >100 mg/l

NOELR: ≥ 100 mg/L

Acute toxicity for algae:

EL50, 72 h, *Desmodesmus s.* (OECD 201): >100 mg/l

NOELR: >= 100 mg/L

Acute toxicity for shellfish:

EL50, 48 h, *Daphnia m.* (water flea) (OECD 202): >2,000 mg/l

NOELR: 1,000 mg/l

12.2 Persistence and degradability

The product cannot be deemed as readily biodegradable (OECD 301D). TOP is degraded 36% after 28 days.

12.3 Bioaccumulative potential

The product is not considered to be bioaccumulative.

12.4 Mobility in soil

The product has low soil mobility.

12.5 Results of PBT and vPvB assessment

Based on available data, the product is considered to not contain the PBT substances (hard to biodegrade, bioaccumulative and toxic) or vPvB substances (very hard to biodegrade and extremely bioaccumulative) according to REACH (regulation (EC) no. 1907/2006) annex XIII.

12.6 Endocrine disrupting properties

No information available

12.7 Other adverse effects

No known other effects.

13 WASTE TREATMENT

13.1 Waste treatment methods

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Product residues, spills, etc. are hazardous waste. Disposal, transport, storage and handling of the waste takes place in accordance with the Swedish Waste Ordinance (2011:927). Avoid contamination of soil or waterways with waste, and do not dispose of waste outdoors.

Suitable waste codes:

13 07 03* - Other fuels (as well as mixtures)

Note – An asterisk (*) next to a code indicates that it is HAZARDOUS WASTE.

14 TRANSPORT INFORMATION

The product is not classed as hazardous goods.

14.1 UN number: N/A

14.2 Transport information: N/A

14.3 Transport hazard class: N/A

14.4 Packing group: N/A

14.5 Environmental hazards: N/A

14.6 Additional precautions: N/A

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: N/A

15 REGULATORY INFORMATION

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

EU regulations:

European parliament and council's regulation (EC) no. 1907/2006 (REACH).

European parliament and council regulation (EC) no. 1272/2008 about classification, labelling and packing of substances and mixtures (CLP).

National regulations:

The Swedish Work Environment Authority's provisions and general recommendations (AFS 2023:14) on occupational exposure limits for airborne substances in the work environment.

The Swedish Work Environment Authority's provisions and general recommendations (AFS 2023:10) on workplace hazards.

Waste ordinance (2020:614).

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15.2 Chemical safety assessment

A chemical safety assessment has been conducted for TOP. The exposure scenario for the substance is not required in accordance with article 14.4 in REACH as the substance is not classed as hazardous.

16 OTHER INFORMATION

Abbreviations

AFS: Swedish Work Environment Authority's Code of Statutes
DNEL: Derived No-Effect Level
EL50: Effective loading — loading rate of the test substance that results in 50% immobilization of the exposed test species
LL50: Lethal loading — level of the test substance that results in 50% mortality
LD50: Lethal dose for 50% of a test population (median lethal dose)
NOELR: No Observed Effect Loading Rate
PBT: Persistent, Bioaccumulative and Toxic substances. A PBT substance meets the criteria in Part 1 of Annex XIII to REACH
TOP: Tall Oil Pitch
UVCB: Substances of Unknown or Variable Composition, Complex Reaction Products or Biological Materials
vPvB: Very Persistent and Very Bioaccumulative substances. A vPvB substance meets the criteria in Part 2 of Annex XIII to REACH

Important literature references

Information from REACH registration of TOP.

Manufacturer's notes

This safety data sheet has been compiled by SunPine AB in Piteå based on the details available to the company at the date of publication. The information should be seen as a guideline by purchasers of goods from SunPine AB and is meant to be used for health, safety and environmental purposes. The information cannot be seen as a specification or as a guarantee for any particular property in the product.

Document history

Version	Date	Comment
2	09/06/2025	Changes uses, information on included substances, references to legislation, transport information, administrative changes.

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1	08/07/2022	First version
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