

SAFETY DATA SHEET

In accordance with Regulation (EC) no. 1907/2006



Raw tall diesel (RTD)

Version: 12.0/Eng

Revision date: 31/01/2020

Supersedes: 21/09/2017

1 NAME OF SUBSTANCE/MIXTURE AND FIRM/COMPANY

1.1 Product designation

Trade name:	Raw tall diesel (RTD)
Name of substance:	Tall oil
CAS no.:	8002-26-4
EC no:	232-304-6
REACH registration number:	01-2119490104-45

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 responsible for safety data sheet:	sds@sunpine.se

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 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.

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2.2 Labelling details

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

Labelling not obligatory

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

3.1 Substances

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

Hazardous substance	Conc. (w/w %)	CAS/EC No./Index No.	Hazard class and category codes	Hazard statements
Tall oil*	100	8002-26-4/ 232-304-6	Not classed	Not classed

* Note: The product is defined as a UVCB substance¹ and is composed primarily of fatty acids, fatty acid isomers and resin acids.

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: Do NOT induce vomiting. Wash out mouth carefully with plenty of water. 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: May cause skin irritation. Repeated or persistent contact can result in degreasing of the skin, which may cause dermatitis.

Contact with eyes: May cause irritation of the eyes.

Ingestion: May cause nausea, vomiting and diarrhoea.

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

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

6.2 Environmental precautions

Prevent emissions from coming into contact with waterways, sewage and soil. Contact the emergency services in the case of larger spills. Local authorities must be informed if significant spills cannot be contained.

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6.3 Methods and materials for containment and cleaning up

Absorb spills with a suitable inert absorbent (e.g. sand, active clay, multisorb). Collect in suitable labelled waste containers. 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. The product can self-ignite in porous materials such as insulation material and used rags. 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

Store tightly closed in a dry and well ventilated area. Store in containers that are correctly labelled. Storage temperature: 20-40°C. Store in separate container away from heat and ignition sources. Take precautionary measures against electrostatic discharges. Containers must be made of metal or high-density polyethylene (HDPE) and kept tightly shut.

7.3 Specific end use(s)

No data available.

8 LIMITATION OF EXPOSURE/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits:

Derived no effect level (DNEL) - Employer

Exposure pattern	Exposure route	Descriptors	DNEL	Most sensitive endpoint
Acute systemic effects	Skin	DNEL	10 mg/kg/d	Repeated dose toxicity
	Inhalation	DNEL	35.3 mg/m ³	Repeated dose toxicity
	Oral	-	-	-
Acute local effects	Skin	-	-	-
	Inhalation	-	-	-
Long-term systemic effects	Skin	DNEL	10 mg/kg/d	Repeated dose toxicity
	Inhalation	DNEL	35.3 mg/m ³	Repeated dose toxicity
Long-term local effects	Skin	-	-	-
	Inhalation	-	-	-

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Hygienic limit value, Sweden

Substance	Level limit value		Short-time value		Note Source	Year
	mg/m ³	ppm	mg/m ³	ppm		
Oil mist, including oil fumes	1	-	3	-	AFS 2018:1	1990

8.2 Limitation of exposure

Technical measures:

Keep exposure at all times to a minimum through adequate ventilation. Local extraction is recommended when heating the product. Install an eye washing station in the workplace.

Eye/face protection:

Use goggles if there is a splash risk.

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:

P3 particle 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:	Fluid	
Colour:	Amber coloured	
Odour:	Weak characteristic	
Odour threshold:	Not applicable	
pH_	Not applicable	
Melting point/freezing point:	Not applicable	
Initial boiling point and boiling range:	300-405°C	ASTM D6352
Flash point:	165±15°C	ASTM D93
Evaporation rate:	Not applicable	

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Flammability:	Not inflammable	
Lower and upper explosive (flammable) limits:	Not applicable	
Vapour pressure:	Not applicable	
Vapour density:	Not applicable	
Relative density:	935±5 (15°C)	SS EN ISO12185
Solubility in water:	Not applicable	
Partition coefficient: n-octanol/water:	Not applicable	
Auto-ignition temperature:	>300°C	Not specified
Decomposition temperature:	Not applicable	
Viscosity:	21±5 cSt (20°C) 75 cSt (20°C)	ASTM D341 Estimate based on ASTM D341 with output values from measurements at higher temperatures
Explosive properties:	Not explosive	
Oxidising properties:	Not oxidising	

9.2 Other information

No data available.

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

Not applicable.

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 (NOx), sulphur oxides and irritating smoke.

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11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

a) Acute toxicity

RTD is not classified for acute toxicity.

LD50 Oral: >2,000 mg/kg bw (rat) (OECD 423)

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

b) Skin corrosion/irritation

RTD is not considered to be corrosive/irritating to skin according to the OECD 404 Test Guideline.

c) Serious eye damage/irritation

RTD is not considered to be corrosive/irritating to eyes according to the OECD 405 Test Guideline.

d) Respiratory - skin sensitisation

RTD is not considered to be a skin sensitizer according to the OECD 406 Test Guideline.

e) Germ cell mutagenicity

RTD is not considered to be mutagenic according to the OECD 476 Test Guideline.

f) Carcinogenicity

RTD is not considered to cause cancer.

g) Reproductive toxicity

RTD is not classified for reproductive toxicity according to the OECD 422 Test Guideline.

h) Specific target organ toxicity (single exposure)

RTD is not considered to cause organ damage through single exposures.

i) Specific target organ toxicity (repeated exposure)

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

j) Aspiration hazard

RTD is not considered to cause aspiration toxicity.

12 ECOLOGICAL INFORMATION

12.1 Toxicity

RTD is not classed as toxic for the environment.

Acute toxicity for fish:

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

NOELR: ≥ 100 mg/L

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Acute toxicity for algae:

EL50, 72 h, *Desmodesmus s.* (OECD 202): approx. 3,300 mg/l
NOELR: approx. 300 mg/L

Acute toxicity for shellfish:

EL50, 48 h, *Daphnia m.* (water flea) (OECD 201): >5,000 mg/l
NOELR: 5,000 mg/l

12.2 Persistence and degradability

RTD is considered to be readily biodegradable. 73% of the substance is degraded after 28 days in the water (OECD 301F).

12.3 Bioaccumulative potential

RTD is not considered to be bioaccumulative.

12.4 Mobility in soil

RTD has low soil mobility.

12.5 Results of PBT and vPvB assessment

Based on available data, RTD 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 Other adverse effects

No known other effects.

13 WASTE TREATMENT

13.1 Waste treatment methods

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)

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

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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:

In case of bulk transport at sea: Product name: *Tall oil, distilled*

Pollutant type: Y

Ship type: 2

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 regulation and general guidelines on hygienic limit values, AFS 2018:1.

The Swedish Work Environment Authority's regulations and general guidelines on chemical work environment risks, AFS 2011:19.

Waste ordinance (2011:927).

15.2 Chemical safety assessment

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

16 OTHER INFORMATION

Abbreviations

AFS: The Swedish Work Environment Authority's statutes

PBT: Persistent, Bioaccumulative and Toxic substances. PBT substances comply with the criteria in part 1, annex XIII in Reach.

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

vPvB: Very persistent and bioaccumulative substances. A vPvB substance complies with the criteria in part 2, annex XIII in REACH.

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Important literature references

Information from REACH registration of the substance.

Classification and labelling register

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
12	31/01/2020	Revisions have been made in section 7, 8, 9 and 15.