SAFETY DATA SHEET

in accordance with Regulation (EC) No 1907/2006, Annex II (amended by Regulation (EU) 2020/878)

Version number: 10
Issued: 2024-12-20
Replaces SDS: 2022-02-01

Tall Oil Rosin (TOR), Rosin

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

1.1. Product identifier

Trade name
Tall Oil Rosin (TOR), Rosin

CAS number
8050-09-7

EC number
232-475-7

REACH registration number
01-2119480418-32

Index No.
650-015-00-7

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

Relevant identified uses
Manufacture
Manufacture of substance

Formulation or re-packing
Rubber production and processing

Use at industrial sites
Polymer processing
Use as binders and release agents
Use in coatings
Polymer production
Use in paper and board production

Widespread use by professional workers
Binder
Use in coatings
Road and construction applications

1.3. Details of the supplier of the safety data sheet

Supplier

SunPine AB

Address
Box 76
941 22 Piteå
Sweden

Telephone
0911-23 28 00

Email
sds@sunpine.se

Web site
www.sunpine.se

1.4. Emergency telephone number

112

Available outside office hours

Yes

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classification

Skin Sens. 1

Hazard statements

H317

Description

Health Hazards: Recognised allergen. May cause irritation and redness.

For the complete meaning of H phrases/classifcation mentioned in this section, see section 16.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Signal word
Warning

Hazard statements
H317 May cause an allergic skin reaction.

Precautionary statements
P261 Avoid breathing smoke/fog/vapors/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352 IF ON SKIN: Wash with plenty of water/.
P333 +P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container to approved waste facility.

2.3. Other hazards
The product does not meet the PBT and vPvB criteria of REACH regulation, Annex XIII.
This substance does not have endocrine disrupting properties with respect to humans. This substance does not have endocrine disrupting properties with respect to non-target organisms.

Contact with hot product can cause burns to skin and eyes.
May form combustible dust concentrations in air.
The product can self-ignite in porous materials such as insulation material and used rags.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
Rosin	8050-09-7 232-475-7 01-2119480418-32 650-015-00-7	≥100%	Skin Sens. 1	H317 - -	-

Product based on
The product is defined as a UVCB substance and consists mainly of resin acids and modified resin acids, such as dimers and decarboxylated resin acids.

Substance additional information
For the complete meaning of H phrases/classification mentioned in this section, see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Get medical attention if adverse health effects persist or are severe.

If breathing is irregular or stopped, administer artificial respiration.
When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.
Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
If unconscious, place in recovery position and get medical attention immediately.

Skin contact

Flush contaminated area with plenty of water. Remove contaminated clothing.
Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
Continue to rinse for at least 10 minutes. If irritation occurs, seek medical attention.

In case of contact with molten product:
Cool molten material attached to the skin immediately with water. Seek a doctor to remove the attached product and to treat the burn.

Eye contact

Immediately flush eye(s) with plenty of water. Keep eyelids wide apart.
Remove any contact lenses if possible without difficulty.
Continue rinsing. Rinse gently with tempered water for 10 minutes.
Get specialist medical attention if there are any persisting symptoms.

In case of contact with molten product:
Immediately flush eyes for at least 15 minutes. Get medical attention.

Ingestion

Rinse out mouth with water. Provide rest, warmth and fresh air. Remove dentures if any.
If material has been swallowed and the exposed person is conscious, give small quantities of water to drink.
Stop if the exposed person feels sick as vomiting may be dangerous.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Get medical attention if adverse health effects persist or are severe.
Never give anything by mouth to an unconscious person.
If unconscious, place in recovery position and get medical attention immediately.
Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

Inhalation

No information available.

Skin contact
May cause allergic skin reaction.
Contact with hot product can cause burns.

Eye contact
Irritation to eyes and mucous membranes.
Can cause stinging, extreme tearing, redness, swelling and blurred vision.
Contact with hot product can cause eye damages.

Ingestion
No information available.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.
Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Other

Information to rescue personnel
No action shall be taken involving any personal risk or without suitable training.
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Use water spray/water mist, alcohol-resistant foam, dry chemical or carbon dioxide.
Sand (in case of smaller fire outbreaks).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture
None known.

5.3. Advice for firefighters

Special protective equipment for fire-fighters
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Measures in case of 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.

Other
The product is combustible, but not flammable.
Fine dust dispersed in air may ignite. Potential dust explosion hazard.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training.
Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering.
Do not touch or walk through spilled material.
Avoid dust formation. Eliminate all sources of ignition.
Avoid accidents, clean up immediately.
Do not inhale dust. Provide adequate ventilation.
Wear appropriate respirator when ventilation is inadequate.
Use personal protective equipment as required. See section 8.

Hot/molten product:
Avoid contact with hot materials.
Ensure good ventilation. Do not inhale fumes.
In case of insufficient ventilation wear suitable respiratory equipment.

6.2. Environmental precautions

Avoid dispersal of spilled material and contact with soil, waterways, drains and sewers.
In the event of major spillages, contact the emergency services.
Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Hot/molten product:
The product is immiscible with water and spreads on the surface of water.
Absorb in inert material (vermiculite, dry sand or soil) and collect.
Where possible, allow the product to harden naturally.
Collect in suitable labelled waste containers.
Clean the spill area with large amounts of water and cleaning agent.

Hardened product:
Move containers from spill area. Do not use air hoses for cleaning.
Minimize dry sweeping in order to avoid the occurrence of dust clouds.
Use non sparking handtools and explosion-proof electric equipment.
Use approved industrial vacuum cleaner for removal.
Collect in a suitable container that is approved for this purpose.
Dispose of via a licensed waste disposal contractor.

Large spill:
Approach the release from upwind.
Prevent entry into sewers, watercourses, basements or confined areas.
Avoid creating dusty conditions and prevent wind dispersion.

6.4. Reference to other sections

For personal protection see section 8 and for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Preventive handling precautions

Handle in accordance with good industrial hygiene and safety practice.
Use personal protective equipment as required. Ensure adequate ventilation.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Wash hands at the end of each work shift and before eating, smoking and using the toilet.
Avoid inhalation of vapors, mist, dust and fumes. Do not get in eyes, on skin, or on clothing. Do not ingest.
Persons with a history of skin sensitization problems should not be working in any process in which this product is used.

Avoid dust formation. Prevent dust accumulation to minimize the risk of explosion. Mechanical ventilation or local extraction may be required.
Avoid heat, flames and other sources of ignition. Take precautions against static electricity.
Electrical equipment should be protected to the appropriate standard.
To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.
Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.
Floors, walls and other surfaces in the hazard area must be cleaned regularly. The product can self-ignite in porous materials such as insulation material and used rags.

Remove and wash contaminated clothing before re-use.
Ensure that eyewash stations and safety showers are close to the workstation location.

Combustible dust Handling procedures
Dust can form an explosive mixture with air. High dust concentrations should be avoided.
Comply with the basic safety conditions for devices and systems pursuant to the definition in Directive 94/9/EC as well as the minimum requirements on occupational health and safety under the selection criteria defined in Directive 1999/92/EC. Train workers in the recognition and prevention of hazards associated with combustible dust in the plant.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Good housekeeping and controlling of dusts are necessary for safe handling of product.
Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds.
Use continuous suction at points of dust generation to capture and minimize the accumulation of dusts.
Particular attention should be given to overhead and hidden horizontal surfaces to minimize the probability of a "secondary" explosion. According to NFPA Standard 654, dust layers 1/32 in.(0.8 mm) thick can be sufficient to warrant immediate cleaning of the area. Solids handling systems must be designed in accordance with applicable NFPA standards (including 654 and 77) and other national guidance.
Control sources of static electricity. This product or the package itself can accumulate static charges, and static discharge can be a source of ignition. Do not empty directly into flammable solvents or in the presence of flammable vapors. The operator, the packaging container and all equipment must be grounded with electrical bonding and grounding systems. Plastic bags and plastics cannot be grounded, and antistatic bags do not completely protect against development of static charges.

7.2. Conditions for safe storage, including any incompatibilities

Hot/molten product: Store at 185 - 205°C.

Hardened product: Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep away from heat and sources of ignition. Take precautions against static electricity.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep away from food and drink. Keep away from incompatible materials.
Avoid contact with oxidising agents. Do not store in unlabeled containers.
Use appropriate containment to avoid environmental contamination.

7.3. Specific end use(s)

See section 1.2.
Further information: see exposure scenarios attached to this safety data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available

8.2. Exposure controls

Appropriate engineering controls

Keep exposure at all times to a minimum through adequate ventilation.
Good general ventilation (normally, 10 air changes per hour) should be used.
Ensure that eyewash station are close to the workplace.

Eye / face protection

When working with hot product or industrial spraying:
Use comprehensive protective visor.
When working with non-hardened product:
If splashes are likely to occur, wear: safety glasses with side-shields
Use eye protection according to EN 166.

Hand protection

When handling a hot product: Wear heat-resistant protective gloves. Leather gloves.

When dealing with non-hardened, or hardened product:
Use chemical resistant gloves that corresponds to EN 374.
Recommended material:
Polyvinyl alcohol (PVA)
Nitrile rubber
Break through time of the glove material: > 4 h

Other skin protection

Wear protective clothing if there is a risk of direct contact.
Impenetrable protective clothing must be used for industrial spraying.

Respiratory protection
Respiratory protection should be used to prevent inhalation of mist/vapours/fumes (e.g. for cleaning large spills or upon entry into tanks, vessels or other confined spaces).
In case of insufficient ventilation or risk of inhalation of vapors: Respirator with a gas filter A.
Particle filter P3 should be used if there is a risk of inhalation of smoke, mist or dust.
Combination filter A/P3 can be used in case of uncertainty or at risk of inhaling both vapors and smoke, mist or dust.

Environmental exposure controls
Collect spillage.
Prevent spills from entering drains or sewers and contaminating soil and vegetation.
Notify authorities if product enters sewers or public waters.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Fluid at temperatures > 100°C. Hardened product is solid and brittle at ambient temperature.

Colour
Yellow/amber.

Odour
Characteristic.

Melting point / freezing point
100 - 150 °C
Method
Internal measurement.

Boiling point or initial boiling point and boiling range
372 - 430 °C
Method
20190513, internal measurement, ASTMD6352.

Flammability
This product is not flammable.

Lower and upper explosion limit
No information available.

Flash point
240 °C

Auto-ignition temperature
> 350 °C
Method
External analysis from 2018, Saybolt, ASTM E 659.

Decomposition temperature
No data available

pH
No information available.

Kinematic viscosity
9.6 mm²/s
Method
At 190°C, internal measurement, 20170407, ASTMD445.

Solubility
0,9 mg/l (20°C)
Method
OECD 105

Partition coefficient n-octanol/water
3,0 to > 6 (6,2) (pH 6-7)
Method
OECD 117

Vapour pressure
108 mbar (200°C)
Method
EU Method A.4

Density and/or relative density
956 kg/m3 at 180°C and 949 kg/m3 at 194°C, according to the mass flow meter of the process. Relative density: 1.07-1.09 (15°C).

Relative vapour density
No information available.

Particle characteristics
The study does not need to be conducted because the substance is marketed or used in a non solid or non granular form.

9.2. Other information
Softening point: 72 ± 10°C made with ASTMD 6090, internal measurement.

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal usage and storage conditions.

10.2. Chemical stability
Stable under normal usage and storage conditions.

10.3. Possibility of hazardous reactions
Potential dust explosion hazard.

10.4. Conditions to avoid
Avoid heat, flames and other sources of ignition.
Minimise dust generation.

10.5. Incompatible materials
Incompatible with oxidizing agents.

10.6. Hazardous decomposition products
No harmful degradation products during normal handling.

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.

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals	Method / Guideline	Remarks
Rosin 8050-09-7 / 232-475-7	LD50	> 2000 mg/kg	Oral	-	Rat	OECD 423	Female
Rosin 8050-09-7 / 232-475-7	LD50	> 2000 mg/kg bw	Dermal	24h	Rat	OECD 402	Male/Female

Skin corrosion/irritation
Based on available data, the classification criteria are not met.

Serious eye damage/irritation
Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation
Skin sensitisation, hazard category 1 - May cause allergic skin reaction.
Tests carried out on non-oxidised rosin (CAS no. 8050-09-7), indicates however no skin sensitisation effects (in accordance with OECD 406 and 429).

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

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

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

STOT-single exposure
Based on available data, the classification criteria are not met.

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

Aspiration hazard
Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics
Irritation to eyes and mucous membranes. Can cause stinging, extreme tearing, redness, swelling and blurred vision. Contact with hot product can cause burns to skin and eyes. Contact with skin can cause allergic reactions such as redness, swelling, blistering and itching.

11.2. Information on other hazards

Endocrine disrupting properties
Not relevant.

Other information
No additional information available.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity
The product is not expected to be hazardous to the environment.

Acute fish toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Rosin 8050-09-7 / 232-475-7	LC50	1.7 mg/l	96h	Pimephales promelas (fathead minnow)	OECD 203

Acute algae toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Rosin	ErC50	16.6 mg/l	72h	Pseudokirchneriella	OECD 201

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
8050-09-7 / 232-475-7				subcapitata (green algae).	

Acute crustacean toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Endpoint of the test	Species	Method / Guideline
Rosin 8050-09-7 / 232-475-7	EC50	1.6 mg/l	48h	Biomass	Daphnia magna (Water flea)	OECD 202

Micro-/macro organism toxicity

Toxicity to microorganisms > 10 000 mg/l (EC50).

12.2. Persistence and degradability

The product is easily biodegradable.
Tests carried out according to OECD 301B show that 80 % of the substance is degraded after 28 days.

12.3. Bioaccumulative potential

The product has no known bioaccumulative potential.
Measured BCF values for resin acids range from <25 to 130 for fish, and 110 to 330 l/kg for mussels.

12.4. Mobility in soil

Mobility

The estimated log Koc values for the substances in rosin vary from 0.8759 till 5.37 (KOCWIN v2.00).

12.5. Results of PBT and vPvB assessment

This substance does not fullfil the PBT/vPvB- criteria according to the REACH-regulations, Annex XIII.

12.6. Endocrine disrupting properties

Not relevant.

12.7. Other adverse effects

Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations

Dispose of any product, residue or packing material according to national and local regulations.
Avoid discharges into drains, onto the ground and in aquatic environments.
The product and its packaging are classified as hazardous waste.

Packaging

Empty containers retain product residue and can be hazardous.
Do not reuse empty containers.

Waste code	Waste description
08 04 17*	rosin oil

Please note - an asterisk (*) next to a code denotes that it is HAZARDOUS WASTE.

Other

The waste code is a recommendation. Appropriate classification of waste is the user's responsibility.

SECTION 14: Transport information

14.1. UN number

3257

14.2. UN proper shipping name

ADR / RID / ADN proper shipping name

LIQUID, ELEVATED TEMPERATURE, N.O.S. (rosin)

IMDG proper shipping name

LIQUID, ELEVATED TEMPERATURE, N.O.S. (rosin)

14.3. Transport hazard class(es)

Label

9

ADR / RID Class

9

ADR / RID Classification code

M9

ADR / RID hazard identification number

99

IMDG Class

9

IATA Class
9

ADN Class
9

ADN Class Code
M9

14.4. Packing group
III

14.5. Environmental hazards
No.

IMDG Marine Pollutant
No.

14.6. Special precautions for user
Tunnel restriction code: D

IMDG EmS
F-A, S-P

14.7. Maritime transport in bulk according to IMO instruments
Product name: Rosin
Pollutant type: Y
Ship type: 2

Other
Hardened product: Not classified as dangerous goods according to transport regulations.
Hot/molten product: Dangerous goods.

SECTION 15: Regulatory information

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

EU regulations
Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (CLP).
Directive 2008/98/EC of the European Parliament and of the Council on waste.
Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

National regulations
Local laws and regulations should be carefully observed.

15.2. Chemical safety assessment

A chemical safety assessment has been carried out. Relevant exposure scenarios are attached as an annex to this safety data sheet.

SECTION 16: Other information

Changes to previous revision

Changes are made in the following sections: 1, 2, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15

Abbreviations

vPvB: very Persistent and very Bioaccumulative.
PBT: Persistent, Bioaccumulative and Toxic.
EC50: The concentration of a substance that affects 50 % of a population over a given period of time.
ErC50: The concentration of a test substance which results in 50 % reduction in growth rate relative to the control group within 72 hours exposure.
LD50: Lethal dose for 50 % of the test population (lethal median dose).
LC50: Deadly concentration for 50 % of a test population.
UVCB: Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials.

References to key literature and data sources

C&L Inventory database (ECHA).
REACH registration dossier.

Phrase meaning

Skin Sens. 1 - Skin sensitisation, hazard category 1
H317 May cause an allergic skin reaction.

Annex

Exposure scenarios

ES 1: Manufacture of substance
ES 2: Formulation - Rubber production and processing
ES 3: Industrial use - Polymer processing
ES 4: Industrial use - Use as binders and release agents
ES 5: Industrial use - Use in coatings
ES 6: Industrial use - Polymer production
ES 7: Industrial use - Use in paper and board production
ES 8: Professional use - Adhesive
ES 9: Professional use - Use in coatings
ES 10: Professional use - Road and construction applications

Manufacturer's notes

This product information has been compiled by SunPine AB in Piteå using the data available to the company at the time stated.

The information must be considered as guidance for purchasers of goods from SunPine AB, and is intended to be used for health, safety and the environment purposes.

The information must not be considered to be a specification or a guarantee of any specific property of the product.