

Safety data sheet

according to 1907/2006/EC, Article 31



Date: November 8th, 2017

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

1.1 Product identifier

- **Trade Name:** Tall Pitch / Tallpech
- **Substance name:** Tall oil pitch
- **CAS Number:** 8016-81-7
- **EINECS Number:** 232-414-4

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

Relevant identified uses: production and distribution of the substance, intermediate, formulation and use (bitumen emulsions, polymeric preparations, ceramic binders, construction and road chemicals, oilfield chemicals [drilling fluids], fuels [generation of energy], fuel additives, agrochemicals, rubber products, adhesives, sealants, mining chemicals, lubricants, greases, metal working fluids...) and use in the manufacture/extraction of sterols.

1.3 Producer / Importer:

UCY business services & trading GmbH
Street: Am Villepohl 4
Post Code / City: DE-53347 Alfter
Phone: +49 228 2428 732
Fax: +49 228 2428 731
E-mail: sales@ucy-energy.com

1.4 Emergency telephone number

CHEMTREC (24/24 – 7/7)
International: +1 703 527 3887
From United Kingdom (London): 0870 820 0418
Other countries: see section 16

2 Hazards identification

2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008:**
The substance is not classified according to Regulation (EC) No 1272/2008.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC:**
The substance is not classified according to Directive 67/548/CEE.

· Information concerning particular hazards for human and environment:

This product may be stored or transported at 80 - 90°C. Burns may be caused by accidental splashes. Prolonged or repeated exposure to vapours/fumes generated by heating this product may cause respiratory irritation with throat discomfort, coughing or breathing difficulty.

2.2 Label elements

- **Labelling according to Regulation (EC) No 1272/2008:** Void
- **Hazard pictograms:** Void
- **Signal word:** Void
- **Hazard statements:** Void

2.3 Other hazards

· Results of PBT and vPvB assessment

· PBT:

According to Annex XIII of REACH Regulation, the substance constituents are not considered to be Persistent, Bioaccumulating and Toxic.

· vPvB:

According to Annex XIII of REACH Regulation, the substance constituents are not considered to be very Persistent and very Bioaccumulating.

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3 Composition/information on ingredients

· 3.1 Chemical characterization: Substance

Tall oil pitch is a UVCB substance (substance of Unknown or Variable composition, Complex reaction products or Biological materials). It consists of a variable content of fatty acids, resin acids, neutrals, high molecular weight cross esters, polymeric acids and polymeric neutrals. The content of these different constituents is variable.

· Identification number(s)

· CAS Number: 8016-81-7

· EC number: 232-414-4

· Description: Tall oil pitch

4 First aid measures

· 4.1 Description of first aid measures

· After inhalation:

Supply fresh air. If symptoms are experienced, get medical attention.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

In case of hot product splashes on the skin, cool immediately with plenty of water during 15 minutes and seek medical advice.

· After eye contact:

Immediately rinse with water. Remove contact lenses.

Rinse opened eye for at least 15 minutes under running water. Then consult an ophthalmologist.

· After swallowing:

In case of accidental ingestion (unlikely), rinse out mouth, if person is conscious, and immediately transfer the patient to hospital.

· 4.2 Most important symptoms and effects

No data available.

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

No specific indications.

5 Firefighting measures

· 5.1 Suitable extinguishing agents

Carbon dioxide (CO₂), foam, fire-extinguishing powder, water spray.

Fight larger fires with water spray or foam.

· 5.2 Special hazards arising from the substance or mixture

Irritant and acrid fumes

· 5.3 Advice for firefighters

· Protective equipment:

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

· Additional information:

Cool endangered receptacles with water spray.

6 Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. Keep unprotected persons away.

Provide adequate ventilation.

· 6.2 Environmental precautions

Do not allow product to reach soil, waterways, drains and sewers.

Inform the relevant authorities if the product has caused environmental pollution (soil, waterways, drains or sewers).

· 6.3 Methods and material for cleaning up/collecting

If the product is hot, wait until it cools down.

Small spills:

Collect and seal in an appropriate container properly labelled for disposal.

Large spills:

Stop spill if it can be done without danger. Dike. Collect and seal in an appropriate container properly labelled for disposal.

· 6.4 Additional information (reference to other sections)

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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7 Handling and storage

- **7.1 Precautions for safe handling** Wear personal protective equipment. Provide adequate ventilation.
- **Information about fire - and explosion protection:** Keep ignition sources away.
- **7.2 Conditions for safe storage** Store preferably in stainless steel tanks at temperature between 80 and 90°C.
- **7.3 Specific end use(s)** None

8 Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** None
- **DNEL (Derived No-Effect Level): Workers - Long-term exposure**
Systemic effects - dermal: > 10 mg/kg bw/d
systemic effects - inhalation: > 35.3 mg/m³
- **DNEL (Derived No-Effect Level): General population - Long-term exposure**
Systemic effects - dermal: > 5 mg/kg bw/d
Systemic effects - oral: > 5 mg/kg bw/d
Systemic effects - inhalation: > 8.7 mg/m³
- **PNECs (Predicted No-Effect Level):**
Hazard assessment of tall oil pitch for the environment is based on the hydrocarbon block method that is applicable to complex substances. Aquatic PNECs for risk characterisation of fatty acid constituent blocks of TOP have been set by expert judgement taking into account QSAR-predicted NOECs and measured data. PNECs for the other constituent blocks have been calculated from QSAR-derived long-term
- **PNEC (Predicted No-Effect Concentration) aqua (freshwater):**
Low boiling fatty acids: 0.20 mg/L
C16 saturated - C18 unsaturated fatty acids: 0.20 mg/L
C18 saturated - C24 saturated and unsaturated fatty acids: 0.14 mg/L
Abietic acid: 0.027 mg/L
Palustric acid: 0.024 mg/L
Pimaric acid: 0.027 mg/L
Abietol: 0.0093 mg/L
Aldehydes: 0.0098 mg/L
Effects unlikely from the other blocks of constituents:
Sesquiterpene and dimethoxystilbene: constituent concentrations extremely low or absent
Tetracosanol and dehydrated sterol, sitosterols and analogue and sterol esters: toxic concentrations are above the water solubility of the constituents
Polymeric acids and polymeric neutrals: high molecular weight constituents; uptake unlikely.
- **PNEC (Predicted No-Effect Concentration) Sewage Treatment Plant:**
Tall oil pitch does not cause inhibitory effects to microorganisms in sewage treatment plants.
- **PNEC (Predicted No-Effect Concentration) sediment (freshwater):**
Low boiling fatty acids: 8.5 mg/kg ww (wet weight)
C16 saturated - C18 unsaturated fatty acids: 48 mg/kg ww
C18 saturated - C24 saturated and unsaturated fatty acids: 250 mg/kg ww
Abietic acid: 13 mg/kg ww
Palustric acid: 11 mg/kg ww
Pimaric acid: 12 mg/kg ww
Abietol: 5.7 mg/kg ww
Aldehydes: 5.7 mg/kg ww
Effects unlikely from the other blocks of constituents:
Sesquiterpene, tetracosanol and dehydrated sterol, dimethoxystilbene, sitosterols and analogue, polymeric acids, polymeric neutrals and sterol esters.

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· PNEC (Predicted No-Effect Concentration) soil:

Low boiling fatty acids: 6.8 mg/kg ww (wet weight)
 C16 saturated - C18 unsaturated fatty acids: 39 mg/kg ww
 C18 saturated - C24 saturated and unsaturated fatty acids: 200 mg/kg ww
 Abietic acid: 10 mg/kg ww
 Palustic acid: 9.1 mg/kg ww
 Pimaric acid: 9.8 mg/kg ww
 Abietol: 4.59 mg/kg ww
 Aldehydes: 4.6 mg/kg ww

Effects unlikely from the other blocks of constituents:

Sesquiterpene, tetracosanol and dehydrated sterol, dimethoxystilbene, sitosterols and analogue, polymeric acids, polymeric neutrals and sterol esters.

· Additional information:

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

· 8.2 Exposure controls

· Personal protective equipment

· General protective and hygienic measures:

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

Immediately remove all soiled and contaminated clothing.

Avoid contact with eyes and skin.

· **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

· Protection of hands:

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

· **Eye protection:** Safety glasses (standard EN 166)

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Viscous
Colour: Dark brown to dark amber
Odour: Unpleasant
Odour threshold: Not determined

· Change in condition

Melting/freezing point: 20.9°C
Boiling point/Boiling range: Onset of partial boiling at 337.9°C (1013 hPa).

· **Flash point:** 243°C (open cup)

· **Auto-ignition temperature:** Not determined

· **Decomposition temperature:** Onset of thermal decomposition at 270 °C

· **Danger of explosion:** No chemical groups associated with explosive properties are present in the constituents of the substance.

· **Oxidizing properties:** No chemical groups associated with oxidizing properties are present in the constituents of the substance.

· **Vapour pressure:** Estimated vapour pressure of the whole substance: 0.00159 Pa at 25°C. The mole fraction of each constituent was multiplied by its vapour pressure. The results obtained were summed together to get the predicted total vapour pressure of the substance.

· Density:

Relative density Extrapolated value by assuming a linear relationship between density and temperature.
 1.00 - 1.20 (20°C)

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· Evaporation rate:	Not determined
· Solubility in / Miscibility with water:	18.7 mg/L (20°C, pH 6.1-7.0)
· Partition coefficient (n-octanol/water):	4.3 - 6.9 (pH 2) 2.8 - 4.4 (pH 7.5)
· Viscosity: Dynamic:	1412 mPa.s (50°C)
· Surface tension:	64.9 mN/m at 22°C (OECD 115)
· Dissociation constant:	No measured data In the range of pH usually considered relevant to the human body and environment, i.e. pH 2-9, acid constituents will ionise while the neutrals will be non-ionised.
· 9.2 Other information	No other data

10 Stability and reactivity

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

11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

· LD₅₀/LC₅₀ values relevant for classification:		
Oral	LD ₅₀	> 2000 mg/kg (rat) (OECD 425)
Dermal	LD ₅₀	> 2000 mg/kg (rat) (OECD 402)

- **Primary irritant effect:**
- **on the skin:**
The substance was not irritant to rabbit skin in a skin irritation study carried out according to the OECD test guideline 404.
- **on the eye:**
The substance was not irritant to rabbit eyes in an eye irritation test conducted in accordance with the OECD test guideline 405.
- **Sensitization:**
No skin sensitization effects were observed in a Guinea Pig Maximisation Test (GPMT) conducted in accordance with the OECD test guideline 406.
- **Mutagenicity/genotoxicity:**
No mutagenicity was observed in a bacteria reversed mutation assay (Ames test) carried out according to the OECD guideline 471.
No mutagenicity was observed in a gene mutation test on mouse lymphoma cells carried out according to the OECD guideline 476.
No genotoxic effects were observed in a chromosome aberration assay on human lymphocytes carried out according to the OECD guideline 473.
- **Carcinogenicity:**
No mutagenic/genotoxic effects were observed with the substance and there is no evidence of hyperplasia or pre-neoplastic lesions from the repeated dose toxicity studies conducted with some constituents of tall oil pitch or related substances.

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· **Reproductive toxicity:**

No reproductive or developmental toxicity studies have been conducted with tall oil pitch as whole product, but data are available for some of its constituents and for related substances: fatty acids, resin acids and neutrals, sterols, distilled tall oil. The effects observed with these substances were minor.

· **Specific target organ toxicity - single exposure:**

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

· **Specific target organ toxicity - repeated exposure:**

No relevant repeated dose toxicity studies have been conducted for tall oil pitch as whole product, however oral data are available for some of its constituents and for some related substances. None of them is classified for specific target organ toxicity.

A NOAEL > 200 mg/kg bw/d may be derived for tall oil pitch from available data for its constituents.

· **Aspiration hazard:** No aspiration hazard expected.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

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

12 Ecological information

· **12.1 Aquatic toxicity**

Aquatic toxicity values have been determined in tests conducted with water-accommodated fractions (WAFs). This method was developed for slightly soluble substances; the initial loading rate of the substance is well higher than the solubility in water. LL₅₀ and EL₅₀, similar to LC₅₀ and EC₅₀, are obtained.

LL₅₀ (96h), fish (Danio rerio): > 100 mg/L (nominal concentration - OECD 203)

NOELr (96h), fish (Danio rerio): ≥ 100 mg/L (nominal concentration - OECD 203)

EL₅₀ (48h), daphnid (Daphnia magna): > 2000 mg/L (nominal concentration - OECD 202)

NOELr (48h), daphnid (Daphnia magna): 1000 mg/L (nominal concentration - OECD 202)

EL₅₀ (72h), algae (Desmodesmus subspicatus): > 100 mg/L (growth rate and biomass yield - nominal concentration - OECD 201)

NOELr (72h), algae (Desmodesmus subspicatus): ≥ 100 mg/L (growth rate and biomass yield - nominal concentration - OECD 201)

· **Toxicity to aquatic microorganisms:**

EL₅₀ (3 h), bacteria (activated sludge): > 100 mg/L (nominal concentration - OECD 209)

· **12.2 Persistence and degradability**

The substance as a whole is not readily biodegradable: 36% of biodegradation was achieved in 28 days in a study conducted according to the OECD 301D Guideline (oxygen consumption, activated sludge, non-adapted).

· **12.3 Bioaccumulative potential**

Not meaningful scientifically for the whole substance. No measured data are available for the individual constituents.

· **12.4 Mobility in soil**

Not meaningful scientifically for the whole substance. No measured data are available for the individual constituents.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** The constituents of the substance are not considered to be Persistent, Bioaccumulating and Toxic (PBT).

· **vPvB:** The constituents of the substance are not considered to be very persistent and very bioaccumulating (vPvB).

· **12.6 Other adverse effects** No data available.

13 Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation:**

After prior treatment the product has to be disposed of in an incinerator for special waste adhering to the regulations pertaining to the disposal of special waste.

· **Uncleaned packaging**

· **Recommendation:** Dispose of content/container in accordance with local/regional/national/international regulations.

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14 Transport information

· 14.1 UN-Number	Not classified as a dangerous good under transport regulation.
· 14.2 UN proper shipping name	Not classified as a dangerous good under transport regulation.
· 14.3 Transport hazard class(es)	
· ADR, IMDG, IATA	
· Class	Not classified as a dangerous good under transport regulation.
· 14.4 Packing group	Not applicable.
· 14.5 Environmental hazards:	Not classified as a dangerous good under transport regulation.
· 14.6 Special precautions for user:	Not applicable.
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	-

15 Regulatory information

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

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

- Annex XIV (authorisation) / substances of very high concern: the product does not contain any substances listed.
- Annex XVII (restrictions): the product does not contain any substances listed.

· 15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out.

As the substance does not meet the criteria for classification as dangerous and is not considered to be a PBT or vPvB, exposure assessment and risk characterisation were not required. Therefore, there is no annex to this safety data sheet.

16 Other information

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

· Emergency telephone numbers (other countries):

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

Argentina (Buenos Aires): +54 (0)11 5983 9431

Australia (Sydney): +61 (0)2 9037 2994

Bahrain (Bahrain): +973 1619 9372

Brazil (Rio de Janeiro): +55 21 3958 1449

Canada*: 1 800 424 9300

Chile (Santiago): + 56 (0)2 581 4934

China*: 4001 204 937

Czech Republic (Prague): +420 228 880 039

Colombia*: 01 800 710 2151

Germany*: 0 800 181 7059

Hong Kong* (Hong Kong): 800 968 793

Hungary (Budapest): +36 (06)1 808 8425

India*: 000 800 100 7141

Indonesia*: 001 803 017 9114

Israel (Tel Aviv): +972 (0)3 763 0639

Italy*: 800 789 767

Italy (Milan): +39 02 4555 7031

Japan (Tokyo): +81 (0)3 4520 9637

Malaysia*: 1 800 815 308

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Mexico*: 01 800 681 9531
Netherlands: +31 (0)858 880 596
Peru (Lima): +51 1 707 1295
Philippines*: 1 800 1 116 1020
Poland (Warsaw): +48 22 398 80 29
Singapore*: 800 101 2201
Singapore: +65 3158 1349
South Africa*: 0 800 983 611
South Korea*: 00 308 13 2549
Spain*: 900 86 85 38
Sweden (Stockholm): +46 (0)8 5250 3403
Switzerland (Zurich): +41 (0)43 501 61 75
Taiwan*: 00801 14 8954
Thailand*: 001 800 13 203 9987
Vietnam (Ho Chi Minh): +84 (0)8 3801 2436
USA*: 1 800 424 9300

(*) Phone numbers for countries marked with an asterisk must be dialed within the country.

Abbreviations and acronyms:

CLP: Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging
EC₅₀: Concentration which leads to a 50 % reduction in treated organism responses compared to untreated organism responses (algae) or concentration which causes effects to 50 % of the tested organisms (daphnids and microorganisms)
EL₅₀: Loading rate which leads to a 50 % reduction in treated organisms responses compared to untreated organism responses (algae) or loading rate which causes effects to 50 % of the tested organisms (daphnids)
LC₅₀: Lethal concentration for 50 % of exposed animals
LD₅₀: Lethal dose for 50 % of animals exposed by oral or dermal route
LL₅₀: Median lethal loading rate (lethal level for 50 % of fish exposed)
NOAEL: No Observed Adverse Effect Level
NOEL: No Observed Effect Level
NOELr: Initial loading rate of the substance without observed effect
OECD: Guidelines from the Organisation for Economic Co-operation and Development
bw: body weight
ww: wet weight
PBT: Persistent, Bioaccumulating and Toxic substance.
vPvB: very Persistent and very Bioaccumulating substance.
UVCB: Substances of unknown or variable composition, complex reaction products or biological materials

Sources:

Literature and company data