

A Company of the Firmenich Group

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Safety data sheet according to 1907/2006/EC, Article 31

Version number 3.0 (replaces version 2.0) Revision date: 08.12.2022 Printing date: 08.12.2022

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

· 1.1 Product identifier

· Trade name: RESINOLINE® BD 5

· Common substance name: Fatty acids, tall oil

· CAS number: 61790-12-3 · EINECS number: 263-107-3

· UFI: Not relevant as this product is a substance

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

Relevant identified uses: production and distribution of the substance, alkyd resins, industrial oils, soaps, surfactants, bitumen emulsion, drilling fluids, fuel lubricity improvers.

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

LES DERIVES RESINIQUES ET TERPENIQUES (DRT)

30 rue Gambetta BP 90206

F-40105 DAX CEDEX

FRANCE

Tel: 33-(0)5 58 56 62 00

Email: fds@drt.fr

· 1.4 Emergency telephone number

NCEC (24/24 - 7/7):

From Europe: +44 1235 239670 (involves operator intervention to identify language)

Others countries: See section 16

SECTION 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.

- · 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: Not determined.
- · vPvB: Not determined.
- · Determination of endocrine-disrupting properties

The substance is not included in the list established in accordance with Article 59(1) of REACH regulation for having endocrine disrupting properties, and is not a substance 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 UVCB
- · Identification number(s)
- · CAS number: 61790-12-3

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• **EC number:** 263-107-3

· Description: Fatty acids, tall-oil

SECTION 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:

Immediately rinse with plenty of water.

Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation occurs.

· After eve contact:

Immediately rinse with plenty of water. Remove contact lenses, if present and easy to do. Hold eyelids apart and flush eyes with plenty of cool low-pressure water for 10-15 minutes. If irritation occurs, consult an ophtalmologist.

· After swallowing:

If the person is conscious, rinse out mouth with water.

Call for a doctor immediately.

- · 4.2 Most important symptoms and effects, both acute and delayed No data available.
- · 4.3 Indication of any immediate medical attention and special treatment needed No specific indications.

SECTION 5: Firefighting measures

5.1 Suitable extinguishing agents

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

Fight large fires with water spray or foam.

- 5.2 Special hazards arising from the substance or mixture In case of fire, may release irritant and acrid fumes.
- 5.3 Advice for firefighters
- · Protective equipment:

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

· Additional information: Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate 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 containment and cleaning up

Small spills:

Absorb spilled liquid with inert absorbent. Collect in an appropriate container properly labelled. Close it for disposal. Large spills:

Stop spill if it can be done without danger. Dike. Pump as much liquid as possible with an explosion-proof pump or a hand pump. Absorb the remaining liquid with inert absorbent. Collect in an appropriate container properly labelled. Close it for disposal.

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· 6.4 Reference to other sections

See section 8 for information on personal protection equipment.

See section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Wear appropriate personal protective equipment. Provide adequate ventilation in the workplace.

· Information about fire - and explosion protection:

Protect from heat.

Keep ignition sources away.

· 7.2 Conditions for safe storage

Store under cover in a cool well-ventilated location.

Store only in the original container.

Keep container tightly sealed.

Keep away from sources of ignition.

Protect from heat and direct sunlight.

- · Further information about storage conditions:
- Maximum storage temperature: 30°C (storage between 5 and 30°C).
- · 7.3 Specific end use(s) None

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Components with limit values that require monitoring at the workplace: None
- · Additional information:

This sheet is based on the current valid lists for occupational exposure limit values at the time of its preparation.

- · 8.2 Exposure controls
- · 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.

- $\cdot \ \textbf{Personal protective equipment}$
- · Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.
- · Hand protection

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

- · Eye/face protection Safety glasses (standard EN 166)
- Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Physical state Liquid

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· Colour: Colourless-slightly amber

Odour: OdourlessOdour threshold: Not determined

· Change in condition

Melting/freezing point:
 Boiling point or initial boiling point and boiling range > 300 °C (OECD 103)

FlammabilityFlash point:Not determined.> 200 °C (closed cup)

Method: like A9, Reg (EC) No 440/2008

Auto-ignition temperature:
 Decomposition temperature:
 pH
 Not determined
 Not determined
 Not determined

· Viscosity

· Dynamic: Not determined

· Solubility

· In water: Not soluble or slightly soluble

Partition coefficient n-octanol/water (log value)
 Vapour pressure:
 Not determined
 Not determined

Density and/or relative density

Density
 Relative density at 20 °C:
 Vapour density
 Not determined
 0,9 (like OECD 109)
 Not determined.

• Explosive properties: The substance does not contain any chemical groups

associated with explosive properties.

· Oxidising properties: The substance does not contain any chemical groups

associated with oxidising properties.

• Evaporation rate: Not determined

SECTION 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 (see section 7).

- · 10.3 Possibility of hazardous reactions: No decomposition if used and stored according to specifications.
- 10.4 Conditions to avoid Keep away from heat and sources of ignition.
- 10.5 Incompatible materials Strong oxidants.
- · 10.6 Hazardous decomposition products No dangerous decomposition products known.

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.
- · LD₅₀/LC₅₀ values relevant for classification: LD50 (oral, rat) > 2000 mg/kg for all constituents tested.
- · Serious eye damage/irritation:

May be irritating to the eyes. However, based on available data, the classification criteria are not met.

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· Skin sensitisation:

Not classified as skin sensitizer. Refer to document 'Tall oil fatty acids – Review of dermal sensitization hazard – prepared by Ramboll Environ US Corp available on HARRPA website.

- · Mutagenicity/genotoxicity: No data available.
- · Carcinogenicity: No data available.
- · Reproductive toxicity: No data available.
- · Specific target organ toxicity single exposure: No data available.
- · Specific target organ toxicity repeated exposure: No data available.
- · Aspiration hazard: No aspiration hazard expected.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties

The substance is not included in the list established in accordance with Article 59(1) of REACH regulation for having endocrine disrupting properties, and is not a substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/210056 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information

· 12.1 Aquatic toxicity

Tests carried out on a similar substance.

Reliable short-term 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 (96 h), fish > 10000 mg/L (nominal concentration - OECD 203)

EL50 (48 h), daphnids (Daphnia magna) > 10000 mg/L (nominal concentration - OECD 202)

EL50 (72 h), algae > 1000 mg/L (biomass - nominal concentration - OECD 201)

NOEC (72 h), algae > 1000 mg/L (nominal concentration - OECD 201)

· Toxicity to aquatic microorganisms:

EC50 (3 h), bacteria > 1000 mg/L (ISO 10712)

NOEC (3 h), bacteria > 1000 mg/L (ISO 10712)

12.2 Persistence and degradability

The substance is readily biodegradable: biodegradation > 80% was achieved in 28 days in a study conducted according to the OECD 301F Guideline (oxygen consumption).

- · 12.3 Bioaccumulative potential No data available.
- · 12.4 Mobility in soil No data available.
- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not determined.
- · vPvB: Not determined.

· 12.6 Endocrine disrupting properties

The substance is not included in the list established in accordance with Article 59(1) of REACH regulation for having endocrine disrupting properties, and is not a substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/210056 or Commission Regulation (EU) 2018/605.

· 12.7 Other adverse effects No data available.

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SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation: The product has to be disposed of in an authorised incinerator, according to regulation.
- · Uncleaned packaging
- · Recommendation: Packaging has to be sent to an authorised waste treatment facility, for recycling or disposal.

SECTION 14: Transport information	
· 14.1 UN number or ID number	Not classified as a dangerous good under transport regulation.
· 14.2 UN proper shipping name · ADR	Not classified as a dangerous good under transport regulation. Void
· 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 Maritime transport in bulk according	y to IMO
instruments	Not applicable.
· Transport/Additional information:	When shipped over 100°C and below flash point: Class: 9 Item: M9 Packaging group: III Danger code: 99 Hazard label: 9 UN number: 3257 ELEVATED TEMPERATURE LIQUID, N.O. (Tall oil, fatty acids)
· UN "Model Regulation"	Void

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Regulation (EC) No 1907/2006 (REACH):

The product does not contain any of the substances included in the following lists

- Annex XIV (authorisation) / substances of very high concern (SVHC)
- Annex XVII (restrictions)
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I Substance is not listed.
- \cdot DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

Substance is not listed.

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· REGULATION (EU) 2019/1148

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

Substance is not listed.

- · Annex II REPORTABLE EXPLOSIVES PRECURSORS Substance is not listed.
- · Regulation (EC) No 273/2004 on drug precursors Substance is not listed.
- · Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

Substance is not listed.

15.2 Chemical safety assessment

No REACH registration required to date.

No Chemical Safety Assessment has been carried out.

SECTION 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 product and 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):

NCEC In-Country Numbers (24/24 - 7/7):

Global / English speaking countries: +44 1865 407333

Middle East/Africa: +44 1235 239671* (English, Arabic, French, Portuguese, Farsi)

Americas: +1 215 207 0061* (English, Spanish, French, Portuguese)

East/South East Asia: +65 3158 1074* (English, Bengali, Cantonese, Indonesian, Hindi, Japanese, Korean, Malay,

Mandarin, Sinhalese, Urdu, Tagalog, Thai, Vietnamese)

Europe: +44 1235 239670*

*(involves operator intervention to identify language)

· Version number of previous version: 2.0

Abbreviations and acronyms:

CLP: Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging

H4R: Hydrocarbon Resins & Rosin Resins REACH Consortium - https://h4rconsortium.com

ECHA: Éuropean CHemicals Agency

EC: European Commission

ISO: International Organization for Standardization

Directive 2012/18/EU. Directive of the European Parliament and of the Council of 4 July, on the control of major-accident hazards involving

dangerous substances

IFRA: International Fragrance Association

OECD: Organisation for Economic Co-operation and Development

ECVAM: European Centre for the Validation of Alternative Methods

QSAR: Quantitative Structure Activity Relationship

DNA: DeoxyriboNucleic Acid

PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: very Persistent and very Bioaccumulative substance.

UVCB: Substances of unknown or variable composition, complex reaction products or biological materials

SVHC: Substances of Very High Concern

BCF: Bioconcentration Factor

CMR: Substance classified as Carcinogenic, Mutagenic or Toxic for Reproduction

Koc: Organic carbon/water partition coefficient. It represents the potential of retention of the substance on soil organic matter

NOEL: No Observed Effect Level

NOELr: Initial loading rate of the substance without observed effect

NOAEL: No Observed Adverse Effect Level NOEC: No Observed Effect Concentration

NOAEC: No Observed Adverse Effect Concentration LOEC: Lowest Observed Effect Concentration

LOAEC: Lowest Observed Adverse Effect Concentration

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LOAEL: Lowest Observed Adverse Effect Level

EC₁₀: Concentration which leads to a 10% reduction in treated organism responses compared to untreated organism responses (algae) or concentration which causes effects to 10 % of the tested organisms (daphnids)

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)

EL_{so}: 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

 $\rm LD_{so}$. Lethal dose for 50% of animals exposed by oral or dermal route $\rm LL_{so}$. Median lethal loading rate (lethal level for 50 % of fish exposed)

LC100 : Lethal concentration for 100% of exposed animals GPMT: Guinea Maximisation Test - Magnusson and Kligman test

LLNA: Local Lymph Node Assay

CO₂: Carbon dioxide NLP: No Longer Polymer bw: body weight dw: dry weight ww : wet weight ppm : parts per million

· Sources: Literature and company data

· Modified data compared to the previous version:

The SDS has been updated according to Regulation (EU) 2020/878, amending Annex II of Regulation (EC) No 1907/2006 (change of sections: 1, 2, 3, 9, 11, 12, 14).

Change of emergency response service

GBUE