

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Rhenofol-Verdüner D

Revision date: 21.01.2021

Product code: FDT-015

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

1.1. Product identifier

Rhenofol-Verdüner D

Substance name: ethyl acetate

REACH Registration Number: 01-2119475103-46-XXXX

CAS No: 141-78-6

Index No: 607-022-00-5

EC No: 205-500-4

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

Use of the substance/mixture

Solvent

Uses advised against

Only use for the intended purpose.
The product is intended for professional use.

1.3. Details of the supplier of the safety data sheet

Company name: FDT Flachdach Technologie GmbH

Street: Eisenbahnstraße 6-8

Place: D-68199 Mannheim

Telephone: +49 (621) 8504100 Telefax: +49 (621) 8504200

e-mail: kundenservice@fdt.de

Contact person: Fachkraft für Arbeitssicherheit Telephone: +49 (621) 8504303

e-mail: gefahrstoffe@fdt.de

Internet: <http://www.fdt.de>

Responsible Department: Arbeitssicherheit und Umweltschutz

1.4. Emergency telephone

number:

Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department or the NHS enquiry service.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquid: Flam. Liq. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Highly flammable liquid and vapour.

Causes serious eye irritation.

May cause drowsiness or dizziness.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

ethyl acetate

Signal word: Danger

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Pictograms:



Hazard statements

- H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

Precautionary statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P243 Take action to prevent static discharges.
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Hand content/container over to officially registered waste disposal company for disposal in accordance with national regulations.

Special labelling of certain mixtures

- EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

This substance does not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1. Substances

Molecular weight: 88,11 g/mol

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
141-78-6	ethyl acetate			100 %
	205-500-4	607-022-00-5	01-2119475103-46-XXXX	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of troubles or persistent symptoms, consult an doctor/physician.
 Remove persons from danger area and lie them down. Never orally infuse something to an unconscious person. No special first aid measures necessary. A vomiting, supine person must be brought into recovery position.

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After inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.
In case of irregular breathing or respiratory arrest, perform artificial respiration.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing. Call a physician immediately.

After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician in any case!

After ingestion

Rinse mouth, spit liquid again. Do NOT induce vomiting. Let water be drunk in little sips (dilution effect). Call a physician immediately.

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

Following eye contact: Causes serious eye irritation.
Following inhalation: May cause drowsiness or dizziness.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂). Extinguishing powder. Water spray. Fight larger fires with water spray jet or alcohol-resistant foam.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to harmful gases and vapours.
In use, may form flammable/explosive vapour-air mixture. Vapours are heavier than air and will spread at floor level. Reignition possible over considerable distance.

5.3. Advice for firefighters

Co-ordinate fire-fighting measures to the fire surroundings. Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Do not allow to enter into surface water or drains. Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Keep away from sources of ignition - No smoking. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7
Personal precautions: refer to section 8

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Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation as well as local exhaust at critical locations. Avoid the formation of aerosol. Handle and open container with care. Avoid contact with skin.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store only in original container. Keep container tightly closed in a cool, well-ventilated place.

7.3. Specific end use(s)

Solvent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
141-78-6	Ethyl acetate	200	734		TWA (8 h)	WEL
		400	1468		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
141-78-6	ethyl acetate			
Consumer DNEL, long-term		dermal		37 mg/kg bw/day
Worker DNEL, long-term		dermal		63 mg/kg bw/day
Consumer DNEL, acute		inhalation		734 mg/m ³
Consumer DNEL, long-term		inhalation		367 mg/m ³
Worker DNEL, acute		inhalation		1468 mg/m ³
Worker DNEL, long-term		inhalation		734 mg/m ³
Consumer DNEL, long-term		oral		4,5 mg/kg bw/day

PNEC values

CAS No	Substance	Value
141-78-6	ethyl acetate	
Freshwater		0,24 mg/l
Marine water		0,024 mg/l
Freshwater sediment		1,15 mg/kg
Marine sediment		0,115 mg/kg
Micro-organisms in sewage treatment plants (STP)		650 mg/l
Soil		0,148 mg/kg

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8.2. Exposure controls

Protective and hygiene measures

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.
Avoid skin, eye and clothing contact. After contact with skin, wash immediately with plenty of water and soap or a suitable cleaning agent.

Eye/face protection

Tightly fitting safety glasses with side shields.

Hand protection

Protect skin by using skin protective cream. Wear suitable gloves.
When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Suitable material: Butyl rubber.
Thickness of glove material: $\geq 0,7\text{mm}$
penetration time (maximum wearing period): $\geq 120\text{min}$
Unsuitable material: NR (Natural rubber (Caoutchouc), Natural latex). FKM (fluororubber). CR (polychloroprenes, Chloroprene rubber). NBR (Nitrile rubber). PVC (Polyvinyl chloride).

Skin protection

Full cover clothing covering arms and legs.

Respiratory protection

Use protective filter mask in case of short-term and low exposure; in case of intense or longer exposure, use respiratory protection device operating independently from circulating air.
Respirator with combination filter for vapour and particles. Filter type A-P2. ABEK-P2

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	characteristic

	Test method
pH-Value:	neutral

Changes in the physical state

Melting point:	-84 °C	DIN 51751
Initial boiling point and boiling range:	76-78 °C	DIN 53757
Flash point:	-4 °C	DIN 51755

Flammability

Gas:	not determined
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Explosive properties

The product is not explosive, however, formation of explosive mixtures are possible.

Lower explosion limits:	2,1 vol. %	
Upper explosion limits:	11,5 vol. %	
Ignition temperature:	460 °C	DIN 51794

Auto-ignition temperature

Gas:	not determined
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Decomposition temperature:	not determined
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Oxidizing properties

not determined

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Vapour pressure: (at 20 °C)	100 hPa
Density (at 20 °C):	0,90 g/cm ³ DIN 51757
Water solubility: (at 20 °C)	61 g/L
Partition coefficient:	0,68
Viscosity / dynamic: (at 20 °C)	0,5 mPa·s
Viscosity / kinematic:	not determined
Vapour density:	not determined
Solvent content:	100,00 %

9.2. Other information

No further information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactivity under regular conditions.

10.2. Chemical stability

The product is stable under regular conditions.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Strong acid.
Alkalis, strong.
Oxidizing agents, strong.

10.6. Hazardous decomposition products

Acetic acid
Thermal decomposition can lead to harmful gases and vapours.
In case of fire: It may produce hazardous fumes like carbon monoxide or carbon dioxide.

Further information

Attacks and dissolves many plastics.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
141-78-6	ethyl acetate				
	oral	LD50 mg/kg	5620	Rat	
	dermal	LD50 mg/kg	>18000	Rabbit	
	inhalation (4 h) vapour	LC50	56 mg/l	Rat	

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Irritation and corrosivity

Causes serious eye irritation.

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause drowsiness or dizziness. (ethyl acetate)

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

No data available.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
141-78-6	ethyl acetate					
	Acute fish toxicity	LC50	230 mg/l	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50	5600 mg/l		Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50	610 mg/l	48 h	Daphnia magna (Big water flea)	
	Algae toxicity	NOEC	>100 mg/l	3 d	Desmodesmus subspicatus	OECD 201
	Crustacea toxicity	NOEC	2,4 mg/l	21 d	Daphnia magna (Big water flea)	DIN 38412, Part 11

12.2. Persistence and degradability

Product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Disposal according to official regulations. Do not dispose with household waste.

Consult the local waste disposal expert about waste disposal. According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

List of Wastes Code - contaminated packaging

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150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1173
14.2. UN proper shipping name: ETHYL ACETATE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Classification code: F1
 Limited quantity: 1 L
 Excepted quantity: E2
 Transport category: 2
 Hazard No: 33
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1173
14.2. UN proper shipping name: ETHYL ACETATE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Classification code: F1
 Limited quantity: 1 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1173
14.2. UN proper shipping name: ETHYL ACETATE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Special Provisions: -
 Limited quantity: 1 L
 Excepted quantity: E2

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EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1173
14.2. UN proper shipping name: ETHYL ACETATE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Limited quantity Passenger: 1 L
 Passenger LQ: Y341
 Excepted quantity: E2
 IATA-packing instructions - Passenger: 353
 IATA-max. quantity - Passenger: 5 L
 IATA-packing instructions - Cargo: 364
 IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No special precautions known.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

2004/42/EC (VOC): 100%

Additional information

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not applicable
 Regulation (EC) No. 648/2004 (Detergents regulation): not applicable
 Regulation (EC) No 850/2004 on persistent organic pollutants: not applicable
 Regulation (EC) No 649/2012 of the European Parliament and of the Council concerning the export and import of dangerous chemicals: This mix contains no chemicals that are subject to the export notification procedures (annex 1).

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH: none

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

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Changes

Version 1,00 - Creation - 10.04.2012

Version 1,01 - Classification/Labeling according Regulation No.1272/2008 (GHS/CLP) and general revision - 21.07.2015

Version 1,02 - General update - 25.04.2016

Version 1,03 - General update - 21.01.2021

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

BlmSchV (Fed.Imm.Prot.Act): Directive on the Implementation of the Federal Immission Protection Act

CAS: Chemical Abstracts Service

DIN: Norm of the Deutsche Institut für Normung (German Institute for Standardization)

EC: Effective Concentration

EG: European Community (Europäische Gemeinschaft)

EN: European Norm

IATA: International Air Transport Association

IBC Code: International Code for the Construction and Equipment of ships carrying Dangerous Chemicals in Bulk

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

ISO: Norm of the International Standards Organization

CLP: Classification, Labeling, Packaging

IUCLID: International Uniform Chemical Information Database

LC: Lethal concentration

LD: Lethal dose

log Kow: Octanol/water partition coefficient

MARPOL: Maritime Pollution Convention = Convention for the Prevention of Maritime Pollution from Ships

OECD: Organisation for Economic Co-operation and Development

PBT: Persistent, bio-cumulative, toxic

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail

TRGS: Technische Regeln für Gefahrstoffe

UN: United Nations

VOC: Volatile Organic Compounds

vPvB: very persistent and very bio-cumulative

WGK: German Water Hazard Class

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

DNEL: Derived No Effect Level

PNEC: Predicted No Effect Concentration

TLV: Threshold Limiting Value

STOT: Specific Target Organ Toxicity

AwSV: Ordinance on Installations for Handling Substances Hazardous to Water

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

Further Information

The information given in this safety data sheet is to describe the product's safety regulations. It is not for guaranteeing certain characteristics and is based on today's knowledge. The safety data sheet was generated upon information of pre-suppliers by:

asses AG, Ottostraße 1, 63741, Aschaffenburg, Germany

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