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

1.1. Product identifier
Rhepanol-Kontaktkleber 50

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

Use of the substance/mixture
adhesives

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 & Co. KG
Street: Eisenbahnastraße 6-8
Place: D-68199 Mannheim
Telephone: +49 (621) 8504100 Telefax: +49 (621) 8504200
e-mail: kundenservice@fdt.de
Contact person: Marco Anderer Telephone: +49 (621) 8504563
e-mail: marco.anderer@fdt.de
Internet: http://www.fdt.de
Responsible Department: Arbeitssicherheit und Umweltschutz

1.4. Emergency telephone number
Poison Control Center (Mayence, GER)
+49 (0)6131-19240 (24h - de, en)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008
Hazard categories:
Flammable liquid: Flam. Liq. 2
Skin corrosion/irritation: Skin Irrit. 2
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Chronic 2
Hazard Statements:
Highly flammable liquid and vapour.
Causes skin irritation.
May cause drowsiness or dizziness.
Toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008
Hazardous components which must be listed on the label
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane cyclohexane acetone; propan-2-one; propanone n-hexane

Signal word: Danger
Pictograms:
Hazard statements
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P501 Dispose of contents/container in accordance with national disposal regulations.

2.3. Other hazards
The components in this mixture do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components
<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>25-&lt;50 %</td>
</tr>
<tr>
<td>926-605-8</td>
<td>Hydrocarbons, C6-C7, isoalkanes, cyclics, &lt;5% n-hexane</td>
<td></td>
</tr>
<tr>
<td>110-82-7</td>
<td>cyclohexane</td>
<td>2,5-&lt;10 %</td>
</tr>
<tr>
<td>203-806-2</td>
<td>110-54-3</td>
<td>0,5-&lt;1,5 %</td>
</tr>
</tbody>
</table>

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 a 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.
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. Subsequently wash off with:
Polyethylene glycol 400. Change contaminated clothing. In case of skin irritation, consult a physician.

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. If eye irritation persists: Get medical advice/attention.

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

4.2. Most important symptoms and effects, both acute and delayed
After skin contact: Irritation and reddening.
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

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.

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Provide adequate ventilation. 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
Pick up dry. Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.
Do not rinse with water or watery detergents.

6.4. Reference to other sections
Safe handling: see section 7
Personal precautions: refer to section 8.
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 exhaustion at critical locations. Handle and open container with care.

Advice on protection against fire and explosion
Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges.

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)
adhesives

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>Acetone</td>
<td>500</td>
<td>1210</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1500</td>
<td>3620</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
<tr>
<td>110-82-7</td>
<td>Cyclohexane</td>
<td>100</td>
<td>350</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>300</td>
<td>1050</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
<tr>
<td>110-54-3</td>
<td>n-Hexane</td>
<td>20</td>
<td>72</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

DNEL/DMEL values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Exposure route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hydrocarbons, C6-C7, isoalkanes, cyclics, &lt;5% n-hexane</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td></td>
<td>1301 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td></td>
<td>1377 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td></td>
<td>13964 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td></td>
<td>1131 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td></td>
<td>5306 mg/m³</td>
</tr>
<tr>
<td>67-64-1</td>
<td>acetone; propan-2-one; propanone</td>
<td>oral</td>
<td></td>
<td>62 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td></td>
<td>62 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td></td>
<td>186 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td></td>
<td>200 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Worker DNEL, acute</td>
<td>inhalation</td>
<td></td>
<td>2420 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td></td>
<td>1210 mg/m³</td>
</tr>
</tbody>
</table>
PNEC values

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS No</th>
<th>Environmental compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>acetone; propan-2-one; propanone</td>
<td>67-64-1</td>
<td>Freshwater</td>
<td>10.6 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marine water</td>
<td>1.06 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Soil</td>
<td>29.5 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marine sediment</td>
<td>3.04 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freshwater sediment</td>
<td>30.4 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Micro-organisms in STP</td>
<td>100 mg/l</td>
</tr>
</tbody>
</table>

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.

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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>lime-green</td>
</tr>
<tr>
<td>Odour:</td>
<td>characteristic</td>
</tr>
</tbody>
</table>

Test method

pH-Value: not determined

Changes in the physical state

<table>
<thead>
<tr>
<th>Melting point:</th>
<th>not determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial boiling point and boiling range:</td>
<td>56 °C</td>
</tr>
<tr>
<td>Flash point:</td>
<td>-18 °C</td>
</tr>
</tbody>
</table>

Flammability

Gas: not determined

Explosive properties
not determined
Rhepanol-Kontakkleber 50

Product code: RCSO-FDT-005

Print date: 15.09.2015

1.2 vol. % Lower explosion limits:
13.0 vol. % Upper explosion limits:
260 °C Ignition temperature:

**Auto-ignition temperature**
Gas: not determined

Decomposition temperature: not determined

**Oxidizing properties**
not determined

Vapour pressure: 247 hPa
(at 20 °C)

Density (at 20 °C): 0.88 g/cm³ DIN 53217/2

Water solubility: insoluble

Partition coefficient: not determined

Viscosity / dynamic: 3000 mPa·s ISO 2555
(at 20 °C)

Viscosity / kinematic: not determined

Vapour density: not determined

Solvent content: not determined

**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**
No information available.

**10.5. Incompatible materials**
No information available.

**10.6. Hazardous decomposition products**
No known hazardous decomposition products.

---

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**
Based on available data, the classification criteria are not met.
Irritation and corrosivity
Causes skin irritation.

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

STOT-single exposure
May cause drowsiness or dizziness. (Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane), (cyclohexane), (acetone; propan-2-one; propanone), (n-hexane)

Severe effects after repeated or prolonged exposure
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.

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

SECTION 12: Ecological information

12.1. Toxicity
Toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Aquatic toxicity</th>
<th>Method</th>
<th>Dose</th>
<th>[h]</th>
<th>[d]</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>acetone; propan-2-one; propanone</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>5540 mg/l</td>
<td>96 h</td>
<td></td>
<td>Onchorhynchus mykiss</td>
<td>Geiger et al. 1990</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>6100 mg/l</td>
<td>48 h</td>
<td></td>
<td>Daphnia magna</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Algea toxicity</td>
<td>NOEC</td>
<td>4740 mg/l</td>
<td>2 d</td>
<td></td>
<td>Selenastrum capricornutum</td>
<td></td>
</tr>
<tr>
<td>110-54-3</td>
<td>n-hexane</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>2,5 mg/l</td>
<td>96 h</td>
<td></td>
<td>Pimephales promelas</td>
<td>Geiger et al. 1990</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
No data available.

12.3. Bioaccumulative potential
No data available.

Partition coefficient n-octanol/water

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>acetone; propan-2-one; propanone</td>
<td>-0,24</td>
</tr>
<tr>
<td>110-54-3</td>
<td>n-hexane</td>
<td>3,9</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
The components in this mixture do 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

Advice on disposal
Disposal according to official regulations.
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.

Waste disposal number of waste from residues/unused products
080409  WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging
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
Classified as 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 1133
14.2. UN proper shipping name: Adhesives
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3

Classification code: F1
Special Provisions: 640H
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3
Hazard No: 33
Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1133
14.2. UN proper shipping name: Adhesives
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3
Rhepanol-Kontaktkleber 50

FDT Flachdach Technologie GmbH & Co. KG

Safety Data Sheet
classified according to Regulation (EC) No 1907/2006

Print date: 15.09.2015
Product code: RCSO-FDT-005
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Classification code: F1
Special Provisions: 640H
Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)
14.1. UN number: UN 1133
14.2. UN proper shipping name: Adhesives
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3

Marine pollutant: Nein
Special Provisions: 223, 955
Limited quantity: 5 L
Excepted quantity: E1
EmS: F-E, S-D

Air transport (ICAO)
14.1. UN number: UN 1133
14.2. UN proper shipping name: Adhesives
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3

Special Provisions: A3
Limited quantity Passenger: 10 L
Passenger LQ: Y344
Excepted quantity: E1
IATA-packing instructions - Passenger: 355
IATA-max. quantity - Passenger: 60 L
IATA-packing instructions - Cargo: 366
IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: yes

14.6. Special precautions for user
No special precautions known.

14.7. Transport in bulk according to Annex II of MARPOL73/78 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

2004/42/EC (VOC): 49.38% 434.5g/l

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 689/2008 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 contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
- Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane
- cyclohexane
- acetone; propan-2-one; propanone
- n-hexane

SECTION 16: Other information

Changes

- Version 1.00 - Creation - 23.05.2014
- Version 1.01 - Classification/Labeling according Regulation No.1272/2008 (GHS/CLP) and general revision - 15.06.2015
- Version 1.02 - Change and revision of the SDS because of new information / recipe - 03.09.2015

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)
CAS: Chemical Abstracts Service
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
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
Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
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:

REACheck Solutions GmbH, Frohsinnstraße 28, 63739 Aschaffenburg, Germany
Phone: +49 (0)6021 - 1 50 86-0, Fax: +49 (0)6021 - 1 50 86-77, E-Mail: eu-sds@reacheck.eu, www.reacheck.eu

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)