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

1.1. Product identifier
Rhepanol-Dachfarbe Kupfer

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

Use of the substance/mixture
coating

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: Eisenbahnstraße 6-8
Place: D-68199 Mannheim
Telephone: +49 (621) 8504100
Telefax: +49 (621) 8504200
Contact person: Marco Anderer
Telephone: +49 (621) 8504563

1.4. Emergency telephone number:
Poison Control Center (Mayence, GER): +49 (0)6131 - 19240 (24h - de, en)
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
Acute toxicity: Acute Tox. 4
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Specific target organ toxicity - single exposure: STOT SE 3
Specific target organ toxicity - repeated exposure: STOT RE 1
Hazardous to the aquatic environment: Aquatic Acute 1
Hazardous to the aquatic environment: Aquatic Chronic 1

Hazard Statements:
Highly flammable liquid and vapour.
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Causes damage to organs through prolonged or repeated exposure.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008
Hazard components for labelling
  Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane
  Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, aromatics (2-25%)
  copper flakes (coated with aliphatic acid)

Signal word: Danger

Pictograms:

Hazard statements
  H225  Highly flammable liquid and vapour.
  H315  Causes skin irritation.
  H319  Causes serious eye irritation.
  H332  Harmful if inhaled.
  H336  May cause drowsiness or dizziness.
  H372  Causes damage to organs through prolonged or repeated exposure.
  H410  Very 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.
  P243  Take action to prevent static discharges.
  P260  Do not breathe dust/fume/gas/mist/vapours/spray.
  P391  Collect spillage.
  P280  Wear protective gloves/protective clothing/eye protection/face protection.
  P301+P310  IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  P302+P352  IF ON SKIN: Wash with plenty of water.
  P305+P351+P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P331  Do NOT induce vomiting.
  P332+P313  If skin irritation occurs: Get medical advice/attention.
  P337+P313  If eye irritation persists: Get medical advice/attention.
  P501  Dispose of contents/container in accordance with national disposal regulations.

2.3. Other hazards
  In use, may form flammable/explosive vapour-air mixture.
  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>EC No</td>
<td>Index No</td>
<td>REACH No</td>
</tr>
<tr>
<td>921-024-6</td>
<td>Classification according to Regulation (EC) No. 1272/2008 [CLP]</td>
<td></td>
</tr>
<tr>
<td>927-344-2</td>
<td>Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411</td>
<td></td>
</tr>
<tr>
<td>64742-48-9</td>
<td>Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha</td>
<td></td>
</tr>
<tr>
<td>265-150-3</td>
<td>Flam. Liq. 3, STOT SE 3, STOT RE 1, Asp. Tox. 1, Aquatic Chronic 2; H226 H336 H372 H304 H411</td>
<td></td>
</tr>
<tr>
<td>029-019-01-X</td>
<td>Acute Tox. 3, Acute Tox. 4, Eye Irrit. 2, Aquatic Chronic 1 (M-Factor = 10), Aquatic Chronic 1 (M-Factor = 10); H331 H302 H319 H400 H410</td>
<td></td>
</tr>
</tbody>
</table>

Further Information

There is the following note: The classification of "Hydrocarbons, C8-C10, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)" as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1 wt% benzene (EINECS No 200-753-7). If the substance is not classified as a carcinogen, so at least the safety (102) -260-262-301 + 310-331 (Table 3.1) or the S phrases (2) -23-24-62 (Table 3.2) apply. This note applies only to certain complex oil-derived substances in Part 3 of this regulation.

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. 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. Do NOT induce vomiting. Aspiration hazard.

4.2. Most important symptoms and effects, both acute and delayed
Following inhalation: May cause drowsiness or dizziness.
After skin contact: Causes skin irritation.
In case of ingestion: If the material gets into the lungs, the following signs and symptoms may occur: tussive irritation, gasping, wheezing, dyspnea, respiratory tract blocked by mucus, short breath and/or fever.
Impairment of the respiratory organs may also occur after a few hours after the exposure.

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
Vapours may form explosive mixtures with air. Vapours are heavier than air and will spread at floor level. 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. Keep away from sources of ignition - No smoking. 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
- Take up mechanically. 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.
- 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)
coating

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS No</th>
<th>Exposure route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, &lt;5% n-hexane</td>
<td>DNEL type</td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>300 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>2085 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>149 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td>149 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>447 mg/m³</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.
NBR (Nitrile rubber).

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>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state:</td>
<td>viscous</td>
</tr>
<tr>
<td>Colour:</td>
<td>according to product description</td>
</tr>
<tr>
<td>Odour:</td>
<td>like gasoline</td>
</tr>
<tr>
<td>pH-Value:</td>
<td>not determined</td>
</tr>
<tr>
<td>Melting point:</td>
<td>not determined</td>
</tr>
</tbody>
</table>

Test method
Initial boiling point and boiling range: 80 °C
Flash point: -11 °C

**Flammability**
- Gas: not determined

**Explosive properties**
- The product is not explosive, however, formation of explosive mixtures are possible.
  - Lower explosion limits: 0.6 vol. %
  - Upper explosion limits: 6.5 vol. %
  - Ignition temperature: 270 °C

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

**Decomposition temperature:**
- not determined

**Oxidizing properties**
- not determined

- Vapour pressure: 21 hPa
  - (at 20 °C)
- Density (at 20 °C): 0.9 g/cm³
- Water solubility: insoluble
- Partition coefficient: not determined
- Viscosity / dynamic: 2500-6000 mPa·s ISO 2555
  - (at 20 °C)
- Viscosity / kinematic: not determined
- Vapour density: not determined
- Solvent content: 80-90 %

**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**
- Oxidizing agents, strong.

**10.6. Hazardous decomposition products**
- Thermal decomposition can lead to harmful gases and vapours.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**
- Based on available data, the classification criteria are not met.
ATEmix calculated
ATE (inhalative aerosol) 3,551 mg/l

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
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<tbody>
<tr>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, &lt;5% n-hexane</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>oral</td>
<td>LD50</td>
<td>&gt;5000</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>dermal</td>
<td>LD50</td>
<td>&gt;1999</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td>inhalative (4 h) vapour</td>
<td>LC50</td>
<td>&gt;23,2</td>
<td>Rat</td>
<td></td>
</tr>
</tbody>
</table>

| Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, aromatics (2-25%) |
| oral                 | LD50   | 15000   | Rat    | OECD 401|
| dermal               | LD50   | 3400    | Rabbit | OECD 402|
| - copper flakes (coated with aliphatic acid) |
| oral                 | ATE    | 500     |        |         |
| inhalative vapour    | ATE    | 3 mg/l  |        |         |
| inhalative aerosol   | ATE    | 0,5 mg/l|        |         |

Irritation and corrosivity
Irritating to skin.

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
Vapours may cause drowsiness and dizziness. (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)

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.

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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aquatic toxicity</th>
<th>Dose</th>
<th>[h]</th>
<th>[d]</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, &lt;5% n-hexane</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>&gt;1-&lt;10</td>
<td>96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>&gt;1-&lt;10</td>
<td>48 h</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
No data available.
12.3. Bioaccumulative potential

No data available.

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

080111  WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; 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; 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 1263
14.2. UN proper shipping name:  Paint
14.3. Transport hazard class(es):  3
14.4. Packing group:  II
Hazard label:  

Classification code:  F1
Special Provisions:  163 367 640D 650
**Rhepanol-Dachfarbe Kupfer**

Product code: RCSO-FDT-041

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited quantity</td>
<td>5 L</td>
</tr>
<tr>
<td>Excepted quantity</td>
<td>E2</td>
</tr>
<tr>
<td>Transport category</td>
<td>2</td>
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<tr>
<td>Hazard No.</td>
<td>33</td>
</tr>
<tr>
<td>Tunnel restriction code</td>
<td>D/E</td>
</tr>
</tbody>
</table>

### Inland waterways transport (ADN)

14.1. **UN number**: UN 1263

14.2. **UN proper shipping name**: Paint

14.3. **Transport hazard class(es)**: 3

14.4. **Packing group**: II

Hazard label: 3

Classification code: F1

Special Provisions: 163 367 640D 650

### Marine transport (IMDG)

14.1. **UN number**: UN 1263

14.2. **UN proper shipping name**: Paint

14.3. **Transport hazard class(es)**: 3

14.4. **Packing group**: II

Hazard label: 3

Marine pollutant: Ja

Special Provisions: 163, 367

Limited quantity: 5 L

Excepted quantity: E2

EmS: F-E, S-E

### Air transport (ICAO-TI/IATA-DGR)

14.1. **UN number**: UN 1263

14.2. **UN proper shipping name**: Paint

14.3. **Transport hazard class(es)**: 3

14.4. **Packing group**: II

Hazard label: 3

Special Provisions: A3 A72 A192

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
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 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

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 contaminating class (D): 2 - clearly 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, n-alkanes, isoalkanes, cyclics, <5% n-hexane
- Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha

SECTION 16: Other information

Changes

Version 1.00 - Creation - 02.03.2018

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
Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 2; H225</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Acute Tox. 4; H332</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Irrit. 2; H315</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Eye Irrit. 2; H319</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT SE 3; H336</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT RE 1; H372</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Acute 1; H400</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 1; H410</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Relevant H and EUH statements (number and full text)

- **H225** Highly flammable liquid and vapour.
- **H226** Flammable liquid and vapour.
- **H302** Harmful if swallowed.
- **H304** May be fatal if swallowed and enters airways.
- **H315** Causes skin irritation.
- **H319** Causes serious eye irritation.
- **H331** Toxic if inhaled.
- **H332** Harmful if inhaled.
- **H336** May cause drowsiness or dizziness.
- **H372** Causes 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.

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.)