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

1.1. Product identifier
Rhepanol-Quellschweißpaste O.R.F.

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

Use of the substance/mixture
sealant

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
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
Hazard categories:
Flammable liquid: Flam. Liq. 3
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Chronic 2
Hazard Statements:
Flammable liquid and vapour.
May cause drowsiness or dizziness.
Toxic to aquatic life with long lasting effects.

2.2. Label elements
Hazardous components which must be listed on the label
Hydrocarbons, C8-C10, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)
Signal word: Warning
Pictograms:

Hazard statements
H226 Flammable liquid and vapour.
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.

P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P262 Do not get in eyes, on skin, or on clothing.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.
P501 Dispose of contents/container in accordance with national disposal regulations.

Special labelling of certain mixtures
EUH066 Repeated exposure may cause skin dryness or cracking.

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>Index No</th>
<th>REACH No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Classification according to Regulation (EC) No. 1272/2008 [CLP]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hydrocarbons, C8-C10, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)</td>
<td>928-136-4</td>
<td>01-2119484809-19</td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H226 H336 H304 H411 EUH066</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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 (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: Repeated exposure may cause skin dryness or cracking.
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
Prevent spread over a wide area (e.g. by containment or oil barriers). 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.
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)
sealant

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
DNEL/DMEL values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>DNEL type</th>
<th>Exposure route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hydrocarbons, C8-C10, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)</td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>44 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>71 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>26 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>330 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>oral</td>
<td>systemic</td>
<td>26 mg/kg bw/day</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. Suitable material: 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
Physical state: paste-like
Colour: black
Odour: like: gasoline

Test method

pH-Value: not determined

Changes in the physical state

Melting point: not determined

Initial boiling point and boiling range: 135 °C

Flash point: 25 °C

Flammability

Gas: not determined

Explosive properties

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

Lower explosion limits: 2,4 vol. %

Upper explosion limits: 9,0 vol. %

Ignition temperature: 270 °C

Auto-ignition temperature

Gas: not determined

Decomposition temperature: not determined

Oxidizing properties

Vapour pressure: 23 hPa
(at 50 °C)

Density (at 20 °C): 1,0 g/cm³ DIN 53420

Water solubility: partially miscible

Partition coefficient: not determined

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

Viscosity / kinematic: not determined

Vapour density: not determined

Solvent content: 70,0%

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.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure routes</th>
<th>Method</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hydrocarbons, C8-C10, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)</td>
<td>oral</td>
<td>LD50</td>
<td>&gt;5000 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
</tbody>
</table>

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

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

STOT-single exposure
May cause drowsiness or dizziness. (Hydrocarbons, C8-C10, n-alkanes, isoalkanes, cyclics, aromatics (2-25%))

Severe effects after repeated or prolonged exposure
Repeated exposure may cause skin dryness or cracking.

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.

12.2. Persistence and degradability
Hydrocarbons, C8-C10, n-alkanes, isoalkanes, cyclics, aromatics (2-25%): Readily biodegradable (according to OECD criteria).

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
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 dangerous 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 dangerous 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): III
14.4. Packing group: 3
Hazard label: F1
Special Provisions: 640E
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3
Hazard No: 30
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): III
14.4. Packing group: 3
Hazard label: F1
Special Provisions: 640E
Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)
**Rhepanol-Quellschweißpaste O.R.F.**

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 1133</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>Adhesives</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es):</td>
<td>III</td>
</tr>
<tr>
<td>14.4. Packing group:</td>
<td>III</td>
</tr>
<tr>
<td>Hazard label:</td>
<td>3</td>
</tr>
<tr>
<td>Marine pollutant:</td>
<td>Ja</td>
</tr>
<tr>
<td>Special Provisions:</td>
<td>223, 955</td>
</tr>
<tr>
<td>Limited quantity:</td>
<td>5 L</td>
</tr>
<tr>
<td>Excepted quantity:</td>
<td>E1</td>
</tr>
<tr>
<td>EmS:</td>
<td>F-E, S-D</td>
</tr>
</tbody>
</table>

**Air transport (ICAO)**

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 1133</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>Adhesives</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es):</td>
<td>III</td>
</tr>
<tr>
<td>14.4. Packing group:</td>
<td>III</td>
</tr>
<tr>
<td>Hazard label:</td>
<td>3</td>
</tr>
<tr>
<td>Special Provisions:</td>
<td>A3</td>
</tr>
<tr>
<td>Limited quantity Passenger:</td>
<td>10 L</td>
</tr>
<tr>
<td>Passenger LQ:</td>
<td>Y344</td>
</tr>
<tr>
<td>Excepted quantity:</td>
<td>E1</td>
</tr>
<tr>
<td>IATA-packing instructions - Passenger:</td>
<td>355</td>
</tr>
<tr>
<td>IATA-max. quantity - Passenger:</td>
<td>60 L</td>
</tr>
<tr>
<td>IATA-packing instructions - Cargo:</td>
<td>366</td>
</tr>
<tr>
<td>IATA-max. quantity - Cargo:</td>
<td>220 L</td>
</tr>
</tbody>
</table>

**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): | 700,0 g/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
centering 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, C8-C10, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

SECTION 16: Other information

Changes
Version 1.00 - Creation - 10.09.2014
Version 1.01 - Classification/Labeling according Regulation No.1272/2008 (GHS/CLP) and general
revision - 23.07.2015

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
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
VOC: Volatile Organic Compounds
vPvB: very persistent and very bio-cumulative
VvWvWS: Administrative Regulation for Water Pollutants
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

Relevant H- and EUH-phrases (Number and full text)

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H336 May cause drowsiness or dizziness.
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, Mühlstraße 94a, 63741 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.)