Safety Data Sheet

Rhepanol-A1 Farbe

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

1.1. Product identifier
Rhepanol-A1 Farbe

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

Use of the substance/mixture
 flame retardant

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: Eisenbahstraße 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)
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
 Skin corrosion/irritation: Skin Irrit. 2
 Reproductive toxicity: Repr. 2
 Specific target organ toxicity - single exposure: STOT SE 3
 Specific target organ toxicity - repeated exposure: STOT RE 2
 Hazardous to the aquatic environment: Aquatic Chronic 3
 Hazard Statements:
 Highly flammable liquid and vapour.
 Causes skin irritation.
 Suspected of damaging the unborn child.
 May cause drowsiness or dizziness.
 May cause damage to organs through prolonged or repeated exposure.
 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling
 Toluene
 Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified

Signal word: Danger
Pictograms:

Hazard statements

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful 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.
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.
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.
P405 Store locked up.
P501 Do not discard content/container with household waste and forward for disposal according to regional/national guidelines.

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>108-88-3</td>
<td>Toluene</td>
<td>50-100 %</td>
</tr>
<tr>
<td>203-625-9</td>
<td></td>
<td>01-211947310-51</td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H225 H361d H315 H336 H373 H304</td>
<td></td>
</tr>
<tr>
<td>7429-90-5</td>
<td>aluminium powder (stabilised)</td>
<td>5-&lt;15 %</td>
</tr>
<tr>
<td>64742-48-9</td>
<td>Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha</td>
<td>1-&lt;5 %</td>
</tr>
<tr>
<td>64742-95-6</td>
<td>Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified</td>
<td>1-&lt;5 %</td>
</tr>
</tbody>
</table>

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

### Further Information

There is the following note: The classification of CAS 64742-48-9 and CAS 64742-95-6 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 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.

**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. 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.
Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated 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**

- 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)**

- Flame retardant
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>7429-90-5</td>
<td>Aluminium metal, respirable dust</td>
<td>-</td>
<td>4</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>50</td>
<td>191</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>384</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
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</table>

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>108-88-3</td>
<td>Toluene</td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>8,13 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>bw/day</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>226 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>bw/day</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, acute</td>
<td>inhalation</td>
<td>226 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, acute</td>
<td>inhalation</td>
<td>56,5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
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</table>

PNEC values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>0,68 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16,39 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Freshwater</td>
<td>0,68 mg/l</td>
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<tr>
<td></td>
<td>Freshwater sediment</td>
<td>13,61 mg/l</td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>2,89 mg/kg</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>silver grey</td>
</tr>
<tr>
<td>Odour:</td>
<td>characteristic</td>
</tr>
</tbody>
</table>

Test method
pH-Value: not determined

Changes in the physical state
Melting point: not determined
Initial boiling point and boiling range: 110 °C
Flash point: 4 °C

Flammability
Gas: not determined

Explosive properties
The product is not explosive, however, formation of explosive mixtures are possible.
Lower explosion limits: 1,3 vol. %
Upper explosion limits: 7,0 vol. %
Ignition temperature: 535 °C
Auto-ignition temperature
Gas: not determined
Decomposition temperature: not determined

Oxidizing properties
not determined
Vapour pressure: 29 hPa
(at 20 °C)
Density (at 20 °C): 0,98 g/cm³ ISO 2811-1
Water solubility: insoluble
Partition coefficient: not determined
Viscosity / dynamic: 200 mPa·s ISO 2555
(at 20 °C)
Viscosity / kinematic: not determined
Vapour density: not determined
Solvent content: 74,30%

9.2. Other information
No further information availible.

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 route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>oral</td>
<td>LD50</td>
<td>&gt;5000 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>&gt;5000 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h)</td>
<td>LC50</td>
<td>31 mg/l</td>
<td>Rat</td>
</tr>
<tr>
<td>64742-48-9</td>
<td>Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha</td>
<td>inhalative</td>
<td>ATE</td>
<td>3 mg/l</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative aerosol</td>
<td>ATE</td>
<td>0,5 mg/l</td>
<td></td>
</tr>
<tr>
<td>64742-95-6</td>
<td>Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified</td>
<td>oral</td>
<td>LD50</td>
<td>&gt;6800 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>&gt;3400 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h)</td>
<td>LC50</td>
<td>10,2 mg/l</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Irritation and corrosivity

Causes skin irritation.

Serious eye damage/eye 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

Suspected of damaging the unborn child. (Toluene)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

STOT-single exposure

May cause drowsiness or dizziness. (Toluene)

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (Toluene)

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.
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
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 1263
14.2. UN proper shipping name: Paint
14.3. Transport hazard class(es): 3
14.4. Packing group: II
<table>
<thead>
<tr>
<th>Inland waterways transport (ADN)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>14.1. UN number:</strong></td>
</tr>
<tr>
<td><strong>14.2. UN proper shipping name:</strong></td>
</tr>
<tr>
<td><strong>14.3. Transport hazard class(es):</strong></td>
</tr>
<tr>
<td><strong>14.4. Packing group:</strong></td>
</tr>
<tr>
<td><strong>Hazard label:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marine transport (IMDG)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>14.1. UN number:</strong></td>
</tr>
<tr>
<td><strong>14.2. UN proper shipping name:</strong></td>
</tr>
<tr>
<td><strong>14.3. Transport hazard class(es):</strong></td>
</tr>
<tr>
<td><strong>14.4. Packing group:</strong></td>
</tr>
<tr>
<td><strong>Hazard label:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Air transport (ICAO-TI/IATA-DGR)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>14.1. UN number:</strong></td>
</tr>
<tr>
<td><strong>14.2. UN proper shipping name:</strong></td>
</tr>
<tr>
<td><strong>14.3. Transport hazard class(es):</strong></td>
</tr>
<tr>
<td><strong>14.4. Packing group:</strong></td>
</tr>
<tr>
<td><strong>Hazard label:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special Provisions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3 A72 A192</td>
</tr>
<tr>
<td>Limited quantity Passenger:</td>
</tr>
</tbody>
</table>
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 28: Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha
Entry 29: Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified
Entry 40: aluminium powder (stabilised)
Entry 48: Toluene

2010/75/EU (VOC): 728,1 g/l
2004/42/EC (VOC): 74,30%
Information according to 2012/18/EU (SEVESO III):
P5c FLAMMABLE LIQUIDS

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:
Toluene

SECTION 16: Other information

Changes
Version 1,00 - Creation - 20.09.2016

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)
Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H228 Flammable solid.
H261 In contact with water releases flammable gases.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful 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
Rhepanol-A1 Farbe


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