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

1.1. Product identifier
alwitra Evalon - flüssig

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: alwitra GmbH & Co. Klaus Göbel
Street: Am Forst 1
Place: D-54296 Trier-Irsch
Telephone: 0651 - 9102 - 0
Telefax: 0651 - 9102 - 294
e-mail (Contact person): J.Loecherbach@alwitra.de
Responsible Department: Abteilung Anwendungstechnik

1.4. Emergency telephone number:
Poison Control Center Berlin (24h): + 49 (0)30 3068 6700
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
Serious eye damage/eye irritation: Eye Irrit. 2
Carcinogenicity: Carc. 2
Specific target organ toxicity - single exposure: STOT SE 3
Specific target organ toxicity - single exposure: STOT SE 3
Hazard Statements:
Highly flammable liquid and vapour.
Harmful if swallowed.
Causes serious eye irritation.
Suspected of causing cancer.
May cause respiratory irritation.
May cause drowsiness or dizziness.

2.2. Label elements
Regulation (EC) No. 1272/2008
Hazard components for labelling
tetrahydrofuran
Signal word: Danger
Pictograms:
Hazard statements

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.

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.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.

Special labelling of certain mixtures

EUH019 May form explosive peroxides.

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

Chemical characterization

Mixture of substances listed below with harmless additions.

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>EC No</th>
<th>Index No</th>
<th>REACH No</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>109-99-9</td>
<td>tetrahydrofuran</td>
<td></td>
<td></td>
<td></td>
<td>70-100 %</td>
</tr>
<tr>
<td>203-726-8</td>
<td></td>
<td>603-025-00-0</td>
<td></td>
<td>01-2119444314-46</td>
<td></td>
</tr>
</tbody>
</table>

Flam. Liq. 2, Carc. 2, Acute Tox. 4, Eye Irit. 2, STOT SE 3, STOT SE 3; H225 H351 H302 H319 H335 H336 EUH019

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. 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. Call a physician immediately.

After ingestion
Rinse mouth, spit liquid again. Do NOT induce vomiting. Have victim drink large quantities of water, with active charcoal if possible. 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 respiratory irritation.
After Ingestion: Harmful if swallowed.
Suspected of causing cancer.

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. Possible ignition over greater distances. Thermal decomposition can lead to harmful gases and vapours. May form explosive peroxides.

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.
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. 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. Protect against direct sunlight.

7.3. Specific end use(s)

sealant

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>109-99-9</td>
<td>Tetrahydrofuran</td>
<td>50</td>
<td>150</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>300</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</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: Butyl 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. Respirator with combination filter for vapour and particles. Filter type A-P2.
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>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>white</td>
</tr>
<tr>
<td>Odour</td>
<td>like: Ether</td>
</tr>
<tr>
<td>pH-Value</td>
<td>not determined</td>
</tr>
</tbody>
</table>

Changes in the physical state

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point</td>
<td>not determined</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>65 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>-14 °C</td>
</tr>
</tbody>
</table>

Flammability

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas</td>
<td>not determined</td>
</tr>
</tbody>
</table>

Explosive properties

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower explosion limits</td>
<td>1,5 vol. %</td>
</tr>
<tr>
<td>Upper explosion limits</td>
<td>12,0 vol. %</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>215 °C</td>
</tr>
</tbody>
</table>

Auto-ignition temperature

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas</td>
<td>not determined</td>
</tr>
</tbody>
</table>

Decomposition temperature

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>not determined</td>
<td></td>
</tr>
</tbody>
</table>

Oxidizing properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>not determined</td>
<td></td>
</tr>
</tbody>
</table>

Vapour pressure

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(at 20 °C)</td>
<td>200 hPa</td>
</tr>
</tbody>
</table>

Density (at 20 °C):

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,92 g/cm³</td>
<td></td>
</tr>
</tbody>
</table>

Water solubility:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>completely miscible</td>
<td></td>
</tr>
</tbody>
</table>

Partition coefficient:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>not determined</td>
<td></td>
</tr>
</tbody>
</table>

Viscosity / dynamic:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(at 20 °C)</td>
<td>1400 mPa·s</td>
</tr>
</tbody>
</table>

ISO 2555

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity / kinematic</td>
<td>not determined</td>
</tr>
</tbody>
</table>

Vapour density:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>not determined</td>
<td></td>
</tr>
</tbody>
</table>

Solvent content:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ca. 80 %</td>
<td></td>
</tr>
</tbody>
</table>

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

Avoid contact with oxidizing agents.
According to Regulation (EC) No 1907/2006

Safety Data Sheet

alwitra GmbH & Co. Klaus Göbel

Revision date: 26.04.2017

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In the presence of oxygen and light: May form explosive peroxides.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

Oxygen. Oxidizing agents, strong.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity
Harmful if swallowed.

ATEmix calculated
ATE (oral) 579,2 mg/kg

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>109-99-9</td>
<td>tetrahydrofuran</td>
<td>oral</td>
<td>LD50</td>
<td>3000 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
</tbody>
</table>

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
Suspected of causing cancer. (tetrahydrofuran)
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure
May cause respiratory irritation. (tetrahydrofuran)
May cause drowsiness or dizziness. (tetrahydrofuran)

STOT-repeated exposure
Based on available data, the classification criteria are not met.
Prolonged/repetitive skin contact may cause skin defatting or dermatitis.

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

Specific effects in experiment on an animal
In a two-year study, the application of tetrahydrofuran in high doses led to tumors in the liver of female mice and the kidney of male rats. The significance of this findings for the human health is not clear.

Further information
The product is skin resorptive.

SECTION 12: Ecological information

12.1. Toxicity
12.2. Persistence and degradability
Product is biodegradable.

12.3. Bioaccumulative potential
No indication of bioaccumulation potential.

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. 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.

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; hazardous waste

Waste disposal number of contaminated packaging
150110 WASTE PACKAGING; ABSORBENTS, WIPE 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 2056
14.2. UN proper shipping name: TETRAHYDROFURAN, solution
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)

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 2056</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>TETRAHYDROFURAN, solution</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es):</td>
<td>3</td>
</tr>
<tr>
<td>14.4. Packing group:</td>
<td>II</td>
</tr>
<tr>
<td>Hazard label:</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Marine transport (IMDG)

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 2056</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>TETRAHYDROFURAN, solution</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es):</td>
<td>3</td>
</tr>
<tr>
<td>14.4. Packing group:</td>
<td>II</td>
</tr>
<tr>
<td>Hazard label:</td>
<td>3</td>
</tr>
</tbody>
</table>

- Marine pollutant: Nein

### Special Provisions:
- -

| Limited quantity: | 1 L |
| Excepted quantity: | E2 |
| EmS: | F-E, S-D |

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

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 2056</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>TETRAHYDROFURAN, solution</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es):</td>
<td>3</td>
</tr>
<tr>
<td>14.4. Packing group:</td>
<td>II</td>
</tr>
<tr>
<td>Hazard label:</td>
<td>3</td>
</tr>
</tbody>
</table>

- Limited quantity Passenger: 1 L
- Passenger LQ: Y341
- Excepted quantity: E2

| IATA-packing instructions - Passenger: | 353 |
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

2004/42/EC (VOC): 80%

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

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

tetrahydrofuran

SECTION 16: Other information

Changes

Version 14 - General update - 23.01.2017

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
Safety Data Sheet

according to Regulation (EC) No 1907/2006

alwitra GmbH & Co. Klaus Göbel

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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
VwVwS: 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

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>On basis of test data</td>
</tr>
<tr>
<td>Acute Tox. 4; H302</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Eye Irrit. 2; H319</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Carc. 2; H351</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT SE 3; H335</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT SE 3; H336</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
EUH019 May form explosive peroxides.

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.)