

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) 2015/830



Article No.: 160148  
Print date: 05.11.2017  
Version: 1.13

Wolfen Liquid for Seam Sealing, all colors  
Revision date: 25.10.2017  
Issue date: 25.10.2017

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

**1.1. product identifiers**

Article No. (manufacturer/supplier) 160148  
Identification of the substance or mixture Wolfen Liquid for Seam Sealing, all colors  
Art.No.: 160148, 160167, 160224

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

**Relevant identified uses:**

Sealing material / glue

**Uses advised against:**

Do not use for products which come into contact with food stuffs.

**1.3. Details of the supplier of the safety data sheet**

**manufacturer**

Wolfen Bautechnik GmbH  
Am Rosengarten 5  
D-63607 Wächtersbach - Neudorf

Telephone: +49 (0)6053 708 5141  
Telefax: +49 (0)6053 708-5130  
E-mail: service@wolfen.com

**Dept. responsible for information:**

Dr. Thomas Leinhos +49 (0)171 585 58 01

**1.4. Emergency telephone number**

Supplier: Projex Group Pty Ltd ABN: 13 003 859 916  
Street Address: Unit 2/1 Military Road Matraville NSW 2036 Web: www.projex.com.au  
Phone #: +612 8336 1666 Fax #: +612 9661 9925 Emergency phone #: Australia +61 432664472

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008 [CLP]**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Carc. 2 / H351	Carcinogenicity	Suspected of causing cancer.
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.

**2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms**



**Danger**

**Hazard statements**

H225 Highly flammable liquid and vapour.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H351 Suspected of causing cancer.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.

**Precautionary statements**

P201 Obtain special instructions before use.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P240 Ground and bond container and receiving equipment.  
P241 Use explosion-proof ventilating equipment.  
P241 Use explosion-proof electrical equipment.  
P242 Use non-sparking tools.  
P243 Take action to prevent static discharges.

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- P261 Avoid breathing vapours.  
P264 Wash hands thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves and eye/face protection.  
P280 Wear protective gloves/protective clothing and eye/face protection.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
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.  
P308 + P313 IF exposed or concerned: Get medical advice/attention.  
P310 Immediately call a POISON CENTER or doctor/ physician.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P332 + P313 If skin irritation occurs: Get medical advice/attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P370 + P378 In case of fire: Use extinguishing powder or sand to extinguish.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P405 Keep locked up.  
P501 Dispose of contents/container to industrial incineration plant.

**contains:**

Cyclohexanone  
tetrahydrofuran

**Supplemental Hazard information (EU)**

not applicable

2.3. Other hazards

**SECTION 3: Composition / information on ingredients**

3.2. Mixtures

**Product description / chemical characterization**

**Description** PVC-solution

**Hazardous ingredients**

**Classification according to Regulation (EC) No 1272/2008 [CLP]**

EC No. CAS No. INDEX No.	REACH No. Chemical name classification // Remark	Wt %
203-726-8 109-99-9 603-025-00-0	01-2119444314-46 tetrahydrofuran Acute Tox. 4 H302 / Eye Irrit. 2 H319 / Carc. 2 H351 / STOT SE 3 H335 / STOT SE 3 H336 / Flam. Liq. 2 H225	50 - 75
203-631-1 108-94-1 606-010-00-7	01-2119453616-35 Cyclohexanone Flam. Liq. 3 H226 / Acute Tox. 4 H302 / Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Dam. 1 H318	25 - 50

**Additional information**

Full text of classification: see section 16

**SECTION 4: First aid measures**

4.1. Description of first aid measures

**General information**

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

**In case of inhalation**

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

**Following skin contact**

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do

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not use solvents or thinners.

**After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

**4.2. Most important symptoms and effects, both acute and delayed**

In all cases of doubt, or when symptoms persist, seek medical advice.

**4.3. Indication of any immediate medical attention and special treatment needed**

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media:**

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

**Extinguishing media which must not be used for safety reasons:**

strong water jet

**5.2. Special hazards arising from the substance or mixture**

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

**5.3. Advice for firefighters**

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

**6.3. Methods and material for containment and cleaning up**

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

**6.4. Reference to other sections**

Observe protective provisions (see section 7 and 8).

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advices on safe handling**

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

**Precautions against fire and explosion:**

Vapours are heavier than air. Vapours form explosive mixtures with air.

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition

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hazards due to electrostatic charges (TRBS 2153)".

**Hints on joint storage**

Keep away from strongly acidic and alkaline materials as well as oxidizers.

**Further information on storage conditions**

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. **Specific end use(s)**

Observe technical data sheet. Observe instructions for use.

**SECTION 8: Exposure controls/personal protection**

8.1. **Control parameters**

**Occupational exposure limit values:**

tetrahydrofuran

INDEX No. 603-025-00-0 / EC No. 203-726-8 / CAS No. 109-99-9

TWA: 300 mg/m<sup>3</sup>; 100 ppm

STEL: 599 mg/m<sup>3</sup>; 200 ppm

Cyclohexanone

INDEX No. 606-010-00-7 / EC No. 203-631-1 / CAS No. 108-94-1

TWA: 102 mg/m<sup>3</sup>; 25 ppm

STEL: 408 mg/m<sup>3</sup>; 100 ppm

**Additional information**

TWA : long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

**DNEL:**

tetrahydrofuran

INDEX No. 603-025-00-0 / EC No. 203-726-8 / CAS No. 109-99-9

DNEL long-term dermal (systemic), Workers: 12,6 mg/kg

DNEL acute inhalative (local), Workers: 300 mg/m<sup>3</sup>

DNEL acute inhalative (systemic), Workers: 300 mg/m<sup>3</sup>

DNEL long-term inhalative (local), Workers: 150 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Workers: 72,4 mg/m<sup>3</sup>

DNEL long-term oral (repeated), Consumer: 1,5 mg/kg

DNEL long-term dermal (local), Consumer: 75 mg/kg

DNEL long-term dermal (systemic), Consumer: 1,5 mg/kg

DNEL acute inhalative (local), Consumer: 150 mg/m<sup>3</sup>

DNEL acute inhalative (systemic), Consumer: 52 mg/m<sup>3</sup>

DNEL long-term inhalative (local), Consumer: 75 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Consumer: 62 mg/m<sup>3</sup>

Cyclohexanone

INDEX No. 606-010-00-7 / EC No. 203-631-1 / CAS No. 108-94-1

DNEL acute dermal, short-term (systemic), Workers: 4 mg/kg bw/day

DNEL long-term dermal (local), Workers: 20 mg/kg

DNEL long-term dermal (systemic), Workers: 4 mg/kg bw/day

DNEL acute inhalative (local), Workers: 80 mg/m<sup>3</sup>

DNEL long-term inhalative (local), Workers: 40 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Workers: 40 mg/m<sup>3</sup>

DNEL long-term oral (repeated), Consumer: 1,5 mg/kg bw/day

DNEL acute dermal, short-term (systemic), Consumer: 1,5 mg/kg bw/day

DNEL long-term dermal (systemic), Consumer: 1 mg/kg bw/day

DNEL acute inhalative (local), Consumer: 40 mg/m<sup>3</sup>

DNEL acute inhalative (systemic), Consumer: 20 mg/m<sup>3</sup>

DNEL long-term inhalative (local), Consumer: 20 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Consumer: 10 mg/m<sup>3</sup>

**PNEC:**

tetrahydrofuran

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INDEX No. 603-025-00-0 / EC No. 203-726-8 / CAS No. 109-99-9

PNEC aquatic, freshwater: 4,32 mg/l  
PNEC aquatic, marine water: 0,432 mg/l  
PNEC aquatic, intermittent release: 21,6 mg/l  
PNEC sediment, freshwater: 23,3 mg/kg  
PNEC sediment, marine water: 2,33 mg/kg  
PNEC, soil: 2,13 mg/kg  
PNEC sewage treatment plant (STP): 4,6 mg/l

Cyclohexanone

INDEX No. 606-010-00-7 / EC No. 203-631-1 / CAS No. 108-94-1

PNEC aquatic, freshwater: 0,0329 mg/l  
PNEC aquatic, marine water: 0,0329 mg/l  
PNEC aquatic, intermittent release: 0,329 mg/l  
PNEC sediment, freshwater: 0,0951 mg/kg  
PNEC sediment, marine water: 0,0168 mg/kg  
PNEC, soil: 0,0143 mg/kg  
PNEC sewage treatment plant (STP): 10 mg/l

## 8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

### Occupational exposure controls

#### **Respiratory protection**

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

#### **Hand protection**

For prolonged or repeated handling the following glove material must be used:

Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles DIN EN 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

#### **Eye protection**

Wear closely fitting protective glasses in case of splashes.

#### **Protective clothing**

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

#### **Protective measures**

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

### Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

## **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

#### **Appearance:**

**Physical state:**

**Liquid**

**Colour:**

**refer to label**

**Odour:**

**characteristic**

**Odour threshold:**

**not determined**

**pH at 20 °C:**

**7**

Method: literature value

**Melting point/freezing point:**

**not determined**

**Initial boiling point and boiling range:**

**66 °C**

Method: literature value

Source: tetrahydrofuran

**Flash point:**

**-21 °C**

Method: literature value

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<b>Evaporation rate:</b>	<b>not applicable</b>
<b>Flammability (solid, gas):</b>	
<b>burning time (s):</b>	<b>not applicable</b>
<b>Upper/lower flammability or explosive limits:</b>	
<b>Lower explosion limit:</b>	<b>1,74 Vol-%</b>
	Method: literature value
<b>Upper explosion limit:</b>	<b>11 Vol-%</b>
	Method: literature value
	Source: tetrahydrofuran
<b>Vapour pressure at 20 °C:</b>	<b>170 mbar</b>
	Method: literature value
	Source: tetrahydrofuran
<b>Vapour density:</b>	<b>not applicable</b>
<b>Relative density:</b>	
<b>Density at 21 °C:</b>	<b>0,955 g/cm<sup>3</sup></b>
	Method: DIN 53217 (Pyknometer)
<b>Solubility(ies):</b>	
<b>Water solubility (g/L) at 20 °C:</b>	<b>The study does not need to be conducted because the substance is known to be insoluble in water.</b>
<b>Partition coefficient: n-octanol/water:</b>	<b>see section 12</b>
<b>Auto-ignition temperature:</b>	<b>215 °C</b>
	Method: literature value
	Source: tetrahydrofuran
<b>Decomposition temperature:</b>	<b>not applicable</b>
<b>Viscosity at 20 °C:</b>	<b>30 s 6 mm</b>
	Method: DIN 53211
<b>Explosive properties:</b>	<b>not applicable</b>
<b>Oxidising properties:</b>	<b>not applicable</b>
9.2. <b>Other information</b>	
<b>Solid content (%):</b>	<b>20 Wt %</b>
<b>solvent content:</b>	
<b>Organic solvents:</b>	<b>80 Wt %</b>
<b>Water:</b>	<b>0 Wt %</b>
<b>Solvent separation test (%):</b>	<b>&lt; 3 Wt % (ADR/RID)</b>

## SECTION 10: Stability and reactivity

- 10.1. **Reactivity**
- 10.2. **Chemical stability**  
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.
- 10.3. **Possibility of hazardous reactions**  
Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.
- 10.4. **Conditions to avoid**  
Hazardous decomposition byproducts may form with exposure to high temperatures.
- 10.5. **Incompatible materials**
- 10.6. **Hazardous decomposition products**  
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides. The product is stable under storage at normal ambient temperatures. Thermal decomposition can lead to the escape of irritating gases and vapours.

## SECTION 11: Toxicological information

Classification according to Regulation (EC) No 1272/2008 [CLP]  
No data on preparation itself available.

- 11.1. **Information on toxicological effects**

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**Acute toxicity**

tetrahydrofuran

oral, LD50, Rat: 1650 mg/kg

Harmful if swallowed.

dermal, LD50, Rat: 2000 mg/kg

inhalative (Gases), LC50, Rat: 4998 ppmV (4 h); evaluation Prolonged or repeated contact with skin or mucous membrane result in irritation symptoms such as redness, blistering, dermatitis, etc.

May cause drowsiness or dizziness.; The product causes narcotic-like effects.; Dyspnoea

Cyclohexanone

oral, LD50, Rat: 1535 mg/kg

Harmful if swallowed.

dermal, LD50, Rabbit: 948 mg/kg

Harmful in contact with skin.

inhalative (vapours), LC50, Rat: 32,14 mg/l (4 h)

Harmful if inhaled.

**skin corrosion/irritation; Serious eye damage/eye irritation**

tetrahydrofuran

Skin (4 h)

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).; The product is skin resorptive.

eyes, Rabbit

Causes serious eye irritation.

Cyclohexanone

Skin (4 h)

The product is skin resorptive.; Repeated exposure may cause skin dryness or cracking.

eyes

Causes serious eye irritation.; Risk of serious damage to eyes.

**Respiratory or skin sensitisation**

tetrahydrofuran

Skin, Guinea pig: ; evaluation negative.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

tetrahydrofuran

Germ cell mutagenicity

No indications of human germ cell mutagenicity exist.

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

No indications of human reproductive toxicity exist.

**Specific target organ toxicity**

tetrahydrofuran

Specific target organ toxicity (single exposure), Irritation:

May cause respiratory irritation.

Specific target organ toxicity (single exposure), drowsiness:

May cause drowsiness or dizziness.

**Aspiration hazard**

tetrahydrofuran

Aspiration hazard

No information available.

**Practical experience/human evidence**

Other observations:

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

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**Overall Assessment on CMR properties**

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

**SECTION 12: Ecological information**

**overall evaluation**

Classification according to Regulation (EC) No 1272/2008 [CLP]

There is no information available on the preparation itself .

Do not allow to enter into surface water or drains.

**12.1. Toxicity**

tetrahydrofuran

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 2160 mg/l (96 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 3485 mg/l (48 h)

Method: OECD 202

Algae toxicity, ErC50, Scenedesmus quadricauda: 3700 mg/l

Bacteria toxicity, Pseudomonas putida: 580 mg/l (16 h)

Fish toxicity, NOEC, Pimephales promelas (fathead minnow): 216 mg/l (33 d)

Cyclohexanone

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 480 - 630 mg/l (96 h)

Fish toxicity, LC50, Leuciscus idus (golden orfe): 536 mg/l (48 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 820 mg/l (24 h)

Algae toxicity, IC50, Scenedesmus quadricauda: 370 (8 D)

**12.2. Persistence and degradability**

tetrahydrofuran

Biodegradation: 39 % (28 D)

Method: OECD 301D/ EEC 92/69/V, C.4-E

Not readily biodegradable (according to OECD criteria)

Cyclohexanone

Biodegradation: 87 % (14 D)

**12.3. Bioaccumulative potential**

tetrahydrofuran

Partition coefficient: n-octanol/water: 0,48

Method: OECD 107

Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

Cyclohexanone

Partition coefficient: n-octanol/water: 0,86

Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

**12.4. Mobility in soil**

Toxicological data are not available.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Other adverse effects**

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Appropriate disposal / Product**

**Recommendation**

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**List of proposed waste codes/waste designations in accordance with EWC**

080111      Waste paint and varnish containing organic solvents or other dangerous substances

**packaging**

**Recommendation**

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

**SECTION 14: Transport information**



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- 14.1. **UN number** UN 1993
- 14.2. **UN proper shipping name**  
Land transport (ADR/RID): Flammable liquid, n.o.s. (Tetrahydrofuran)  
Sea transport (IMDG): FLAMMABLE LIQUID, N.O.S. (Tetrahydrofuran)  
Air transport (ICAO-TI / IATA-DGR): Flammable liquid, n.o.s. (Tetrahydrofuran)
- 14.3. **Transport hazard class(es)** 3
- 14.4. **Packing group** II
- 14.5. **Environmental hazards**  
Land transport (ADR/RID) not applicable  
Marine pollutant not applicable
- 14.6. **Special precautions for user**  
Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.  
Advices on safe handling: see parts 6 - 8
- Further information**
- Land transport (ADR/RID)**  
tunnel restriction code D/E
- Sea transport (IMDG)**  
EmS-No. F-E, S-E
- Air transport (ICAO-TI / IATA-DGR)**
- 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 legislation**
- Directive 2010/75/EU on industrial emissions**  
VOC-value (in g/L): 764,560
- National regulations**
- Restrictions of occupation**  
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.  
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

- 15.2. **Chemical Safety Assessment**  
For the following substances of this preparation a chemical safety assessment has been carried out:

EC No.	Chemical name	REACH No.
CAS No. 203-726-8 109-99-9	tetrahydrofuran	01-2119444314-46

**SECTION 16: Other information**

**Full text of classification in section 3:**

Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Carc. 2 / H351	Carcinogenicity	Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
STOT SE 3 / H335	Specific target organ toxicity (single)	May cause respiratory irritation.

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) 2015/830



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STOT SE 3 / H336	exposure) Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.
Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.

**Abbreviations and acronyms**

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

**Further information**

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

\* Data changed compared with the previous version