

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.10.2015

Version number 6

Revision: 28.10.2015

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

- **Date of compilation:** 16.11.2010
- **1.1 Product identifier**
- **Trade name:** PVC-Cold-Welding Liquid Type A

- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation:** Seam sealing of PVC-Floor- and Wallcoverings, PVC-Foils.
- **1.3 Supplier:**
Flooring Wholesale Ltd T/as Look Floors
9 Industry Road
Penrose
Auckland **Tel.: +64 09 525 0652**
New Zealand **Email: info@lookfloors.co.nz**

- **E-mail address of the competent person responsible for the Safety Data Sheet:** *sdb@csb-online.de*
- **Informing department:**
Herr Pisek - email: info@mueller-pvc-naht.de

- **1.4 Emergency telephone number:**
National Poisons Centre 0800 POISON or 0800 764 766

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02



GHS07



GHS08

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- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
Tetrahydrofuran
- **Hazard statements**
H225 *Highly flammable liquid and vapour.*
H302 *Harmful if swallowed.*
H319 *Causes serious eye irritation.*
H351 *Suspected of causing cancer.*
H335-H336 *May cause respiratory irritation. May cause drowsiness or dizziness.*
- **Precautionary statements**
P101 *If medical advice is needed, have product container or label at hand.*
P102 *Keep out of reach of children.*
P210 *Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.*
P280 *Wear protective gloves / protective clothing.*
P233 *Keep container tightly closed.*
P202 *Do not handle until all safety precautions have been read and understood.*
P312 *Call a POISON CENTER/doctor if you feel unwell.*
- **Additional information:**
EUH019 *May form explosive peroxides.*
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** *Mixture of the substances listed below with nonhazardous additions.*

· **Dangerous components:**

| | | |
|--------------------------------|--|----------|
| CAS: 109-99-9 | Tetrahydrofuran | 75 - 95% |
| EINECS: 203-726-8 | ⚠ Flam. Liq. 2, H225; ⚠ Carc. 2, H351; ⚠ Acute Tox. 4, | |
| Reg.nr.: 01-2119444314-46-XXXX | H302; Eye Irrit. 2, H319; STOT SE 3, H335-H336 | |

- **Additional information:** *For the wording of the listed risk phrases refer to section 16.*

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Take affected persons out of danger area and instruct to lie down.
Immediately remove any clothing contaminated by the product.
Call a POISON CENTER/doctor if you feel unwell.
- **After inhalation:** *Supply fresh air; consult doctor in case of symptoms.*
- **After skin contact:**
Instantly wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult doctor.*
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; instantly call for medical help.
- **4.2 Most important symptoms and effects, both acute and delayed** *May cause drowsiness and dizziness.*
- **4.3 Indication of any immediate medical attention and special treatment needed** *symptomatic treatment*

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
Carbon dioxide (CO₂), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**
Can be released in case of fire:
Carbon monoxide (CO) and Carbon dioxide (CO₂)
Hydrogen chloride (HCl)
Can form explosive vapour-air mixtures.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
Cool endangered containers with water spray jet.
Collect contaminated fire fighting water separately. It must not enter drains.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Ensure adequate ventilation.
Remove all ignition sources.
Avoid contact with skin and eyes.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or water bodies.
Inform respective authorities in case product reaches water or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.
Ensure adequate ventilation.
Send for recovery or disposal in suitable containers.
- **6.4 Reference to other sections** See Section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Ensure good interior ventilation, especially at floor level (fumes are heavier than air).
Make sure that all applicable workplace limits are observed.
Open and handle container with care.
Prevent formation of aerosols.
Avoid contact with skin and eyes.
- **Information about protection against explosions and fires:**
Fumes can combine with air to form an explosive mixture.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Use explosion-proof apparatus / fittings and spark-proof tools.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
Store only in the original container.

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- Observe regulations for storage of flammable liquids.
Observe all local and national regulations for storage of water polluting products.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
 - **Further information about storage conditions:**
 - Store container in a well ventilated position.
 - Store in cool, dry conditions in well sealed containers.
 - Protect from overexposure to light.
 - Avoid contact with air / oxygen.(formation of peroxide).
 - Store in a locked cabinet and out of the reach of children.
 - **Maximum storage temperature:** 30 °C
 - **Minimum storage temperature:** ≥ 0 °C
 - **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **8.1 Control parameters**

- **Components with critical values that require monitoring at the workplace:**

109-99-9 Tetrahydrofuran

| | |
|------------------------|--|
| WEL (Great Britain) | Short-term value: 300 mg/m ³ , 100 ppm Long-term value: 150 mg/m ³ , 50 ppm Sk |
| IOELV (European Union) | Short-term value: 300 mg/m ³ , 100 ppm Long-term value: 150 mg/m ³ , 50 ppm Skin |

- **DNELs**

109-99-9 Tetrahydrofuran

| | | |
|------------|--|---|
| Oral | DNEL long-term exposure - systemic effects | 15 mg/kg bw/d (general population) |
| Dermal | DNEL long-term exposure - systemic effects | 25 mg/kg bw/d (worker) |
| Inhalative | DNEL acute / short-term exposure - local effects | 300 mg/m ³ (worker) |
| | DNEL acute / short-term exposure - systemic effect | 300 mg/m ³ (worker) |
| | DNEL long-term exposure - local effects | 150 mg/m ³ (worker) |
| | DNEL long-term exposure - systemic effects | 62 mg/m ³ (general population) 150 mg/m ³ (worker) |

- **PNECs**

109-99-9 Tetrahydrofuran

| | |
|------|---|
| PNEC | 4.32 mg/l (aqua (freshwater)) 21.6 mg/l (aqua (intermittent releases)) 0.432 mg/l (aqua (marine water)) 23.3 mg/kg (sediment (freshwater)) 2.33 mg/kg (sediment (marine water)) 2.13 mg/kg (soil) 4.6 mg/l (STP (sewage treatment plant)) |
|------|---|

- **Additional information:** The lists that were valid during the compilation were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and food.

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Instantly remove any contaminated garments.

Avoid contact with the eyes and skin.

Wash hands during breaks and at the end of the work.

Do not eat, drink or smoke while working.

· **Breathing equipment:**

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

· **Recommended filter device for short term use: Filter A**

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Solvent resistant gloves.

(THF)

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **As protection from splashes gloves made of the following materials are suitable:**

Fluorocarbon rubber (Viton) - FKM

Nitrile rubber - NBR

Butyl rubber - BR

· **Eye protection: Safety glasses**

· **Body protection:**

Protective work clothing

Body protection must be chosen depending on activity and possible exposure.

· **Limitation and supervision of exposure into the environment**

Do not allow to enter drainage system, surface or ground water.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

| | |
|-------------------------|-------------------|
| Form: | liquid |
| Colour: | colourless |
| Smell: | ether-like |
| Odour threshold: | no data available |

· **pH-value:** not applicable

· **Change in condition**

Melting point/Melting range: < -45 °C

Boiling point/Boiling range: 65 °C (THF)

· **Flash point:** -21 °C (DIN 51755)

· **Inflammability (solid, gaseous)** not applicable

· **Ignition temperature:** 230 °C (THF)

· **Decomposition temperature:** Not determined.

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| | |
|---|---|
| · Self-inflammability: | Product is not selfigniting. |
| · Danger of explosion: | May form explosive peroxides. Product is not explosive. However, formation of explosive air/ vapour mixtures is possible. |
| · Critical values for explosion: | |
| Lower: | 1.5 % (THF) |
| Upper: | 12.0 % (THF) |
| · Oxidising properties | not classified as oxidising |
| · Vapor pressure at 20 °C: | 173 hPa (THF) |
| · Density at 20 °C: | 0.9 - 1.0 g/ml |
| · Bulk density: | not applicable |
| · Relative density | not determined |
| · Vapour density (AIR = 1) at 20 °C: | 2.5 (THF) |
| · Evaporation rate | not determined |
| · Solubility in / Miscibility with | |
| Water: | partly miscible |
| · Partition coefficient (n-octanol/water): | not determined |
| · Viscosity: | |
| dynamic at 20 °C: | 40 - 1000 mPas |
| kinematic: | not determined |
| · Solvent separation test | not determined |
| · Organic solvents: | 75 - 95 % |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see 10.3
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Avoid impact, friction, heat, sparks, electrostatic charges.
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Possible formation of peroxide
Forms explosive gases / fumes
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Alkaline materials
Strong oxidizing agents
Oxygen
- **10.6 Hazardous decomposition products:**
Hydrogen chloride (HCl)
Carbon monoxide (CO) and Carbon dioxide (CO₂)

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Harmful if swallowed.

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· **LD/LC50 values that are relevant for classification:**

109-99-9 Tetrahydrofuran

| | | |
|------------|----------|--------------------|
| Oral | LD50 | 1650 mg/kg (rat) |
| Dermal | LD50 | > 2000 mg/kg (rat) |
| Inhalative | LC50/4 h | > 14.7 mg/l (rat) |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Long or repeated contact can defat skin and may cause dermatitis.
- **Serious eye damage/irritation**
Causes serious eye irritation.
Causes serious eye irritation.
- **inhalation:** May cause respiratory irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Subacute to chronic toxicity:** May cause drowsiness or dizziness.
- **Additional toxicological information:**
Inhalation of concentrated vapours may lead to anaesthesia-like conditions and headache, dizziness, etc.
- **Sensitisation** No sensitizing effect known.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Limited evidence of a carcinogenic effect.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity**
Suspected of causing cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **carcinogenicity**
In long-term experiments in rats and mice with high concentrations (600 and 1800 ppm) tumours were observed (NTP-National Toxicology Program, USA, 1998). Since genotoxicity plays no or at most a minor part, the German MAK-Commission (DFG) has classified THF in Category 4, what means that no contribution to human cancer risk by THF is expected, provided the MAK/TWA (Maximum Allowable Concentration) are observed.
The EU has classified THF in 2012 as Carc.Cat. 3; R 40=Suspected of causing cancer.
- **mutagenicity**
There is no evidence of mutagenicity or a genotoxic potential on the basis of in vitro and in vivo studies.
- **toxicity for reproduction**
There is no evidence of adverse effects on reproduction on the basis of studies in rats and mice. No indication of adverse developmental effects in animal tests with non-toxic parental doses. Therefore there is no reason to fear damage to the embryo or foetus when the MAK-/TWA- values are observed (see section 8.1.1).
- **STOT-single exposure**
May cause respiratory irritation. May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

109-99-9 Tetrahydrofuran

| | |
|-----------|--|
| EC50/48 h | > 100 mg/l (water flea (daphnia magna)) |
| LC50/96 h | > 100 mg/l (fathead minnow (pimephales promelas)) |
| NOEC | > 100 mg/l (algae) (8 d) |
| | > 100 mg/l (fathead minnow (pimephales promelas)) (33 d) |

- **12.2 Persistence and degradability** A part of the components is biodegradable.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

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- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Water hazard class 1 (Self-assessment): slightly hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations



- **13.1 Waste treatment methods**
- **Recommendation**
Hand over to disposers of hazardous waste.
Disposal must be made according to official regulations.

- **European waste catalogue:**

| | |
|-----------|--|
| 08 04 09* | waste adhesives and sealants containing organic solvents or other dangerous substances |
| 08 04 10 | waste adhesives and sealants other than those mentioned in 08 04 09 |

- **Uncleaned packagings:**
- **Recommendation:**
Non contaminated packagings can be treated like household garbage.
Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

SECTION 14: Transport information

- | | |
|---|--|
| · 14.1 UN-Number | UN1133 |
| · ADR, IMDG, IATA | UN1133 |
| · 14.2 UN proper shipping name | UN1133 ADHESIVES, Special provision 640D |
| · ADR | ADHESIVES |
| · IMDG, IATA | ADHESIVES |
| · 14.3 Transport hazard class(es) | |
| · ADR | |
|  | |
| · Class | 3 (F1) Flammable liquids. |
| · Label | 3 |
| · IMDG, IATA | |
|  | |
| · Class | 3 Flammable liquids. |
| · Label | 3 |
| · 14.4 Packing group | |
| · ADR, IMDG, IATA | II |

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| | |
|--|--|
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | NO |
| · 14.6 Special precautions for user | Warning: Flammable liquids. |
| · Kemler Number: | 33 |
| · EMS Number: | F-E,S-D |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · Transport/Additional information: | Transport by post may be prohibited or restricted. |
| · ADR | |
| · Limited quantities (LQ): | 5L |
| · Transport category: | 2 |
| · Tunnel restriction code: | D/E |
| · UN "Model Regulation": | UN1133, ADHESIVES, Special provision 640D, 3, II |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Information about limitation of use:**
Employment restrictions concerning pregnant and lactating women must be observed.
Employment restrictions concerning young persons must be observed.
Employment restrictions concerning women of child-bearing age must be observed.
- **Decree to be applied in case of technical fault:**
Quantity limits according to "EC Seveso directive" should be observed.
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **VOC (EU):** 75 - 95 %
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
The(se) H-phrase(s) are those of the ingredient(s) and do(es) not necessarily represent the classification of the product.
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.
- **Department issuing MSDS:**
Product Safety Department
C.S.B. GmbH Phone: +49 - 2151 - 652086-0
Düsseldorfer Str. 113 Fax: +49 - 2151 - 652086-9
47809 Krefeld / Germany

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· **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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Carc. 2: Carcinogenicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· **Sources:** These data are based on information submitted by pre-suppliers.

· *** Data compared to the previous version altered.**

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