

Safety data sheet

According to 91/155 EEC

Printing date 17.01.2014

Version number 3

Revision: 17.01.2014

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







- **Date of compilation:** 30.03.2012
- **Product identifier**
- **Trade name:** PVC-Cold-Welding Liquid Type A,
PVC-Cold-Welding Paste Type C,
PVC-Cold-Welding Paste Type T
- **Application of the substance / the preparation:** Seam sealing of PVC-Floor- and Wallcoverings, PVC-Foils.
- **Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:**
Werner Müller GmbH
PVC-Kaltschweisstechnik
Rudolf-Diesel-Str. 7
D-67227 Frankenthal

Germany
- Tel.: +49(0)6233-3793-0
FAX: +49(0)6233-3793-20
www.mueller-pvc-naht.de
- **Informing department:**
Herr Pisek
e-mail: info@mueller-pvc-naht.de
- **Emergency telephone number:**
Giftnotruf Universität Mainz / Poison Information Center Mainz
Tel.: +49 (0)6131/19240
www.giftinfo.uni-mainz.de

2 Composition/information on ingredients

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

- **Dangerous components:**

| | | |
|----------|---|----------|
| 109-99-9 | Tetrahydrofuran  Xn R22-40;  Xi R36/37;  F R11 R19-67  Flam. Liq. 2, H225;  Carc. 2, H351;  Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H335-H336 | 75 - 95% |
|----------|---|----------|

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

3 Hazards identification

- **Classification of the substance or mixture**



flame

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



health hazard

Carc. 2 H351 Suspected of causing cancer.



Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2A H319 Causes serious eye irritation.

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

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· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

 Xn; Harmful

R22-40: Harmful if swallowed. Limited evidence of a carcinogenic effect.

 Xi; Irritant

R36/37: Irritating to eyes and respiratory system.

 F; Highly flammable

R11: Highly flammable.

R19-67: May form explosive peroxides. Vapours may cause drowsiness and dizziness.

· **Information concerning particular hazards for human and environment:**

Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.

Heightened risk of fire and danger of explosion at accumulation in lower-lying or closed rooms.

· **Classification system:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified/labelled in accordance with EC Directives / relevant national laws.

· **Code letter and hazard designation of product:**



Xn Harmful
F Highly flammable

· **Hazard-determining components of labelling:**

Tetrahydrofuran

· **Risk phrases:**

- 11 Highly flammable.
- 19 May form explosive peroxides.
- 22 Harmful if swallowed.
- 36/37 Irritating to eyes and respiratory system.
- 40 Limited evidence of a carcinogenic effect.
- 67 Vapours may cause drowsiness and dizziness.

· **Information pertaining to particular dangers for man and environment**

· **Safety phrases:**

- 2 Keep out of the reach of children.
- 13 Keep away from food, drink and animal feedingstuffs.
- 16 Keep away from sources of ignition - No smoking.
- 29 Do not empty into drains.
- 36/37 Wear suitable protective clothing and gloves.
- 46 If swallowed, seek medical advice immediately and show this container or label.

4 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.

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- **After skin contact:**
*Instantly wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.*
- **After eye contact:** *If skin irritation continues, consult a doctor.*
- **After swallowing:**
*Rinse out mouth and then drink plenty of water.
Do not induce vomiting; instantly call for medical help.*

5 Firefighting measures

- **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.*
- **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.*
- **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.*

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
*Wear protective clothing.
Ensure adequate ventilation.
Remove all ignition sources.
Avoid contact with skin and eyes.*
- **Environmental precautions:**
*Inform respective authorities in case product reaches water or sewage system.
Do not allow product to reach sewage system or water bodies.*
- **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.*
- **Reference to other sections** *See Section 8 for information on personal protection equipment.*

7 Handling and storage

- **Precautions for safe handling**
*Ensure good ventilation/exhaustion at the workplace.
Ensure good interior ventilation, especially at floor level (fumes are heavier than air).
Open and handle container with care.
Prevent formation of aerosols.
Avoid contact with skin and eyes.
Make sure that all applicable workplace limits are observed.*
- **Information about protection against explosions and fires:**
*Fumes can combine with air to form an explosive mixture.
Keep ignition sources away - Do not smoke.*

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Protect against electrostatic charges.

Use explosion-proof apparatus / fittings and spark-proof tools.

· Storage

· Requirements to be met by storerooms and containers:

Store only in the original container.

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

· Specific end use(s) *No further relevant information available.*

8 Exposure controls/personal protection

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

· Components with critical values that require monitoring at the workplace:

109-99-9 Tetrahydrofuran (50 - 100%)

| | |
|-----------------|--|
| NES (Australia) | Long-term value: 295 mg/m ³ , 100 ppm |
| | Sk |

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

· Personal protective equipment

· General protective and hygienic measures

Keep away from foodstuffs, beverages and food.

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

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- 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.

9 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. |
| · 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) |
| · Oxidizing 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 | |
| · Organic solvents: | 75 - 95 % |

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· **Other information**

No further relevant information available.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
Avoid impact, friction, heat, sparks, electrostatic charges.
No decomposition if used according to specifications.
- **Incompatible materials:**
Alkaline materials
Strong oxidizing agents
Oxygen
- **Hazardous decomposition products:**
Hydrogen chloride (HCl)
Carbon monoxide (CO) and Carbon dioxide (CO₂)

11 Toxicological information

· **Acute toxicity:**

· **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:**

- **on the skin:** *Long or repeated contact can defat skin and may cause dermatitis.*
- **on the eye:** *Causes serious eye irritation.*
- **inhalation:** *May cause respiratory irritation.*

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

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.

- **carcinogenicity** *Limited evidence of a carcinogenic effect.*

12 Ecological information

· **Aquatic toxicity:**

109-99-9 Tetrahydrofuran

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

- **Persistence and degradability** *A part of the components is biodegradable.*
- **Bioaccumulative potential** *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

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation** *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.

14 Transport information

· **UN-Number**

· **ADG, IMDG, IATA**

UNI133

· **UN proper shipping name**

· **ADG**

· **IMDG, IATA**

UNI133 ADHESIVES, Special provision 640D

ADHESIVES

· **Transport hazard class(es)**

· **ADG**



· **Class**

· **Label**

3 (F1) Flammable liquids.

3

· **IMDG, IATA**



· **Class**

· **Label**

3 Flammable liquids.

3

· **Packing group**

· **ADG, IMDG, IATA**

II

· **Environmental hazards:**

· **Marine pollutant:**

NO

· **Special precautions for user**

· **Kemler Number:**

Warning: Flammable liquids.

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| | |
|--|--|
| · EMS Number: | F-E,S-D |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Transport by post may be prohibited or restricted. |
| · ADG | |
| · Excepted quantities (EQ): | E2 |
| · Limited quantities (LQ): | 5L |
| · Transport category: | 2 |
| · Tunnel restriction code: | D/E |
| · UN "Model Regulation": | UN1133, ADHESIVES, Special provision 640D, 3, II |

15 Regulatory information

· **Australian Inventory of Chemical Substances**

| | |
|----------|-----------------|
| 109-99-9 | Tetrahydrofuran |
|----------|-----------------|

· **Standard for the Uniform Scheduling of Medicines and Poisons**

None of the ingredients is listed.

· **National regulations**

· **Information about limitation of use:**

Workers should not be exposed to the hazardous materials contained in this preparation. Exceptions can be made by the authorities in certain exceptional cases.

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

· **Other regulations, limitations and prohibitive regulations**

Observe restrictions on the marketing and use according to Annex XVII of Regulation (EC) No 1907/2006.

· **VOC (EU):** 75 - 95 %

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) R- resp. H-phrase(s) are those of the ingredient(s) and do(es) not necessarily represent the classification of the preparation/mixture.

· **Department issuing MSDS:**

C.S.B. GmbH

Düsseldorfer Str. 113

47809 Krefeld / Germany

Phone: +49 - 2151 - 652086-0

Fax: +49 - 2151 - 652086-9

· **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

INECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

AU