

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

Printing date 27.05.2015

Version number 6

Revision: 27.05.2015

### 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,  
PVC-Cold-Welding Paste Type C,  
PVC-Cold-Welding Paste Type T
- **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 Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:**  
Supplier: CBC AMERICAS Corp  
2000 Regency Parkway Ste # 600  
Cary, NC 27518 USA Telephone: 1-919-230-8700
  
- Germany
- **E-mail address of the competent person responsible for the Safety Data Sheet:** [sdb@csb-online.de](mailto:sdb@csb-online.de)
- **Informing department:**  
Technical Department  
1-800-899-8916 ext. 9297
- **1.4 Emergency telephone number:**  
Call CHEMTEL Day or Night: DOMESTIC NORTH  
AMERICA 1-800-255-3924  
International, call + 001 813 248 0585

### SECTION 2: Hazards identification

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



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. 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

(Contd. on page 2)

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PVC-Cold-Welding Paste Type T**

(Contd. of page 1)

- **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:**  
AUH019 *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:**

109-99-9	Tetrahydrofuran	75 - 95%
	<i>Flam. Liq. 2, H225; Carc. 2, H351; Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H335-H336</i>	

- **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*

(Contd. on page 3)

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(Contd. of page 2)

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
Carbon dioxide (CO<sub>2</sub>), 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 (CO<sub>2</sub>)  
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.

(Contd. on page 4)

AU

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PVC-Cold-Welding Paste Type C,  
PVC-Cold-Welding Paste Type T**

(Contd. of page 3)

- 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**

NES (Australia)	Long-term value: 295 mg/m <sup>3</sup> , 100 ppm Sk
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- **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 DNEL	25 mg/kg bw/d (worker)
Inhalative	acute / short-term exposure - local effects DNEL	300 mg/m <sup>3</sup> (worker)
	acute / short-term exposure - systemic effect DNEL	300 mg/m <sup>3</sup> (worker)
	long-term exposure - local effects	150 mg/m <sup>3</sup> (worker)
	DNEL long-term exposure - systemic effects	62 mg/m <sup>3</sup> (general population) 150 mg/m <sup>3</sup> (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.
- 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.

(Contd. on page 5)

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

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Version number 6

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PVC-Cold-Welding Paste Type C,  
PVC-Cold-Welding Paste Type T**

(Contd. of page 4)

- **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:

<b>Form:</b>	liquid
<b>Colour:</b>	colourless
<b>Smell:</b>	ether-like
<b>Odour threshold:</b>	no data available

· **pH-value:** not applicable

##### · Change in condition

<b>Melting point/Melting range:</b>	< -45 °C
<b>Boiling point/Boiling range:</b>	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.

(Contd. on page 6)

AU

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**Trade name: PVC-Cold-Welding Liquid Type A,  
PVC-Cold-Welding Paste Type C,  
PVC-Cold-Welding Paste Type T**

(Contd. of page 5)

· <b>Critical values for explosion:</b>	
Lower:	1.5 % (THF)
Upper:	12.0 % (THF)
· <b>Oxidising properties</b>	not classified as oxidising
· <b>Vapor pressure at 20 °C:</b>	173 hPa (THF)
· <b>Density at 20 °C:</b>	0.9 - 1.0 g/ml
· <b>Bulk density:</b>	not applicable
· <b>Relative density</b>	not determined
· <b>Vapour density (AIR = 1) at 20 °C:</b>	2.5 (THF)
· <b>Evaporation rate</b>	not determined
· <b>Solubility in / Miscibility with</b>	
Water:	partly miscible
· <b>Partition coefficient (n-octanol/water):</b>	not determined
· <b>Viscosity:</b>	
dynamic at 20 °C:	40 - 1000 mPas
kinematic:	not determined
· <b>Solvent separation test</b>	not determined
· <b>Organic solvents:</b>	75 - 95 %
· <b>9.2 Other information</b>	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 (CO<sub>2</sub>)

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **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)

(Contd. on page 7)

AU

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PVC-Cold-Welding Paste Type T**

(Contd. of page 6)

- **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.
- **Subacute to chronic toxicity:** May cause drowsiness or dizziness.
- **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.  
Carc. 2
- **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).

## 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.

#### · 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.

AU

(Contd. on page 8)

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

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Version number 6

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**Trade name:** PVC-Cold-Welding Liquid Type A,  
PVC-Cold-Welding Paste Type C,  
PVC-Cold-Welding Paste Type T

(Contd. of page 7)

### 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

- |   |   |
|---|---|
| · <b>14.1 UN-Number</b><br>· <b>ADG, IMDG, IATA</b>   | UN1133  |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADG</b><br>· <b>IMDG, IATA</b>                  | UN1133 ADHESIVES, Special provision 640D<br>ADHESIVES |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADG</b>                                      |   |
|            |   |
| · <b>Class</b><br>· <b>Label</b>  | 3 (F1) Flammable liquids.<br>3                        |
| · <b>IMDG, IATA</b>   |   |
|            |   |
| · <b>Class</b><br>· <b>Label</b>  | 3 Flammable liquids.<br>3                             |
| · <b>14.4 Packing group</b><br>· <b>ADG, IMDG, IATA</b>                                       | II  |
| · <b>14.5 Environmental hazards:</b><br>· <b>Marine pollutant:</b>                            | NO  |
| · <b>14.6 Special precautions for user</b><br>· <b>Kemler Number:</b><br>· <b>EMS Number:</b> | Warning: Flammable liquids.<br>33<br>F-E,S-D          |
| · <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>         | Not applicable.                                       |
| · <b>Transport/Additional information:</b>  | Transport by post may be prohibited or restricted.    |

(Contd. on page 9)

AU

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**Trade name: PVC-Cold-Welding Liquid Type A,  
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PVC-Cold-Welding Paste Type T**

(Contd. of page 8)

- |                                    |  |
|------------------------------------|--|
| · <b>ADG</b>                       |  |
| · <b>Excepted quantities (EQ):</b> | E2   |
| · <b>Limited quantities (LQ):</b>  | 5L   |
| · <b>Transport category:</b>       | 2  |
| · <b>Tunnel restriction code:</b>  | D/E  |
| · <b>UN "Model Regulation":</b>    | 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**

· **Australian Inventory of Chemical Substances**

109-99-9	Tetrahydrofuran
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· **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**

· **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) R- resp. H-phrase(s) are those of the ingredient(s) and do(es) not necessarily represent the classification of the product.

· **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

· **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)

(Contd. on page 10)

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PVC-Cold-Welding Paste Type T**

(Contd. of page 9)

*PNEC: Predicted No-Effect Concentration (REACH)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*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*

AU