

Safety Data Sheet

Safe Work Australia - Code of Practice

PVC-Cold-Welding Agent

Version number: 8.0 Replaces version of: 2015-10-28 (7) Revision: 2020-12-22 First version: 2010-11-16

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

1.1 **Product identifier**

Trade name

CAS number

PVC-Cold-Welding Agent

PVC-Cold-Welding Liquid Type A PVC-Cold-Welding Paste Type C PVC-Cold-Welding Paste Type T

not relevant (mixture)

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

Relevant identified uses

Seam sealing of PVC-Floor- and Wallcoverings, PVC-Foils

1.3 Details of the supplier of the safety data sheet

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e-mail (competent person)

sdb@csb-online.de

Please do not use this e-mail address to ask for the latest safety data sheet. For this purpose contact Werner Müller GmbH.

National	contact

Herr Gaub info@mueller-pvc-naht.de

1.4 Emergency telephone number

As above or nearest toxicological information centre.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

Classification								
Section	Hazard class	Category	Hazard class and category	Hazard state- ment				
2.6	flammable liquid	2	Flam. Liq. 2	H225				
3.10	acute toxicity (oral)	4	Acute Tox. 4	H302				

Classification							
Section	Hazard class	Category	Hazard class and category	Hazard state- ment			
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319			
3.6	carcinogenicity	2	Carc. 2	H351			
3.8R	specific target organ toxicity - single expos- ure (respiratory tract irritation)	3	STOT SE 3	H335			
3.8D	specific target organ toxicity - single expos- ure (narcotic effects, drowsiness)	3	STOT SE 3	H336			

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

2.2 Label elements

Labelling	
Signal word	danger
Pictograms	
GHS02, GHS07, GHS08	

Hazard statements

- 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

P101	If medical advice is needed, have product container or label at hand.
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- P102 Keep out of reach of children.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P233 Keep container tightly closed.
- **P280** Wear protective gloves/protective clothing.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- **P501** Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental hazard information

EUH019 May form explosive peroxides.

Hazardous ingredients for labelling

tetrahydrofuran

2.3 Other hazards

of no significance

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture).

3.2 Mixtures

Description of the mixture

Name of sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Specific Conc. Limits	M-Factors
tetrahydrofuran	CAS No 109-99-9	75 - < 90	Flam. Liq. 2 / H225 Acute Tox. 4 / H302 Eye Irrit. 2 / H319 Carc. 2 / H351 STOT SE 3 / H335 STOT SE 3 / H336	** **	Eye Irrit. 2; H319: C ≥ 25 % STOT SE 3; H335: C ≥ 25 %	

for full text of H-phrases: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air.

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Mouth to mouth resuscitation should be avoided. Use alternative methods, preferably with oxygen or compressed air driven apparatus.

In case of respiratory tract irritation, consult a physician.

Following skin contact

Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Following ingestion

Rinse mouth. Do not induce vomiting. Get medical advice/attention if you feel unwell.

Notes for the doctor

None.

4.2 Most important symptoms and effects, both acute and delayed

Narcotic effects.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

water spray, alcohol resistant foam, fire extinguishing powder, carbon dioxide (CO2)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products

carbon monoxide (CO), carbon dioxide (CO2), hydrogen chloride (HCl)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

use suitable breathing apparatus

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Ventilate affected area. Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to clean up a spill

Collect spillage. Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.).

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breathe vapour/spray.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Measures to protect the environment

Avoid release to the environment.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas. Wash hands after use. Preventive skin protection (barrier creams/ointments) is recommended. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Protect from sunlight.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Protect against external exposure, such as

UV-radiation/sunlight, contact with air/oxygen

Consideration of other advice

Keep away from food, drink and animal feeding stuffs.

General rule

Keep locked up and out of the reach of children.

Ventilation requirements

Provision of sufficient ventilation.

Specific designs for storage rooms or vessels

Keep container tightly closed and in a well-ventilated place. Store in a dry place.

Storage temperature recommended storage temperature: ≥0 - 30 °C

Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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Occup	Occupational exposure limit values (Workplace Exposure Limits)								
Coun- try	Name of agent	CAS No	Identi- fier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Nota- tion	Source
AU	tetrahydrofuran	109-99-9	WES	100	295				WES

Notation

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components of the mixture								
Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time		
tetrahydrofuran	109-99-9	DNEL	72.4 mg/ m³	human, inhalat- ory	worker (industry)	chronic - system- ic effects		
tetrahydrofuran	109-99-9	DNEL	12.6 mg/ kg bw/day	human, dermal	worker (industry)	chronic - system- ic effects		
tetrahydrofuran	109-99-9	DNEL	13 mg/m³	human, inhalat- ory	consumer (private households)	chronic - system- ic effects		
tetrahydrofuran	109-99-9	DNEL	1.5 mg/kg bw/day	human, dermal	consumer (private households)	chronic - system- ic effects		
tetrahydrofuran	109-99-9	DNEL	1.5 mg/kg bw/day	human, oral	consumer (private households)	chronic - system- ic effects		

Relevant PNECs of components of the mixture							
Name of substance	CAS No	Endpoint	Threshold level	Environmental com- partment			
tetrahydrofuran	109-99-9	PNEC	4.32 ^{mg} / _l	freshwater			
tetrahydrofuran	109-99-9	PNEC	0.432 ^{mg} / _l	marine water			
tetrahydrofuran	109-99-9	PNEC	4.6 ^{mg} / _l	sewage treatment plant (STP)			
tetrahydrofuran	109-99-9	PNEC	23.3 ^{mg} / _{kg}	freshwater sediment			
tetrahydrofuran	109-99-9	PNEC	2.33 ^{mg} / _{kg}	marine sediment			

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15minute period (unless otherwise specified)

Relevant PNECs of components of the mixture					
Name of substance CAS No Endpoint Threshold level Environmental cor					
tetrahydrofuran 109-99-9 PNEC 2.13 ^{mg} / _{kg} soil					
tetrahydrofuran: PNEC Oral Predators 67 mg-kg food					

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Short-term (single instance): Not required.

Hand protection

Protective gloves					
Material	Breakthrough times of the glove material				
FKM: fluoro-elastomer	splash protection				
NBR: acrylonitrile-butadiene rubber	splash protection				
IIR: isobutene-isoprene (butyl) rubber	splash protection				

Check leak-tightness/impermeability prior to use.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Type: A-P2 (combined filters against particles and organic gases and vapours, colour code: Brown/ White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	Colourless
Odour	Like ether
Melting point/freezing point	<-45 °C
	(THF)

Boiling point or initial boiling point and boiling range	65 °C (THF)
Flammability	Flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	1.5 vol% - 12 vol%
Flash point	-21 °C (DIN 51755)
Auto-ignition temperature	230 °C
Decomposition temperature	>110 °C (THF)
pH (value)	Not determined
Kinematic viscosity	Not determined
Solubility(ies)	
Water solubility	Not miscible in any proportion
Partition coefficient	
partition coefficient n-octanol/water (log value)	This information is not available
Vapour pressure	173 hPa at 20 °C (THF)
Density and/or relative density	
Density/ relative density	0.9 – 1 ^g / _{cm³} at 20 °C
Relative vapour density	2.5 at 20 °C (air = 1) (THF)
Particle characteristics	no data available
Other information	
Information with regard to physical hazard classes	
Flammable liquids	
Sustained combustibility	yes
Other safety characteristics	there is no additional information

9.2

SECTION 10: Stability and reactivity

10.1 Reactivity

Risk of ignition.

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. May form explosive peroxides.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge.

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

10.5 Incompatible materials

air, oxidisers, tin

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification procedure

If not otherwise specified the classification is based on: Ingredients of the mixture (additivity formula).

Classification acc. to GHS

Acute toxicity

Test data are not available for the complete mixture. Harmful if swallowed.

Acute toxicity of components of the mixture					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
tetrahydrofuran	109-99-9	oral	LD50	1,650 ^{mg} / _{kg}	rat
tetrahydrofuran	109-99-9	dermal	LD50	>2,000 ^{mg} / _{kg}	rat

Skin corrosion/irritation

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Serious eye damage/eye irritation

Causes serious eye irritation.

Skin sensitisation

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Respiratory sensitisation

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure

May cause respiratory irritation. May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

Test data are not available for the complete mixture.

Aquatic toxicity (acute) of components of the mixture

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Name of substance	CAS No	Endpoint	Value	Species	Exposure time
tetrahydrofuran	109-99-9	LC50	2,160 ^{mg} / _l	fathead minnow (Pimephales pro- melas)	96 h
tetrahydrofuran	109-99-9	EC50	1,930 ^{mg} / _l	fathead minnow (Pimephales pro- melas)	96 h

Aquatic toxicity (chronic)

Test data are not available for the complete mixture.

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
tetrahydrofuran	109-99-9	NOEC	216 ^{mg} / _l	fathead minnow (Pimephales pro- melas)	33 d
tetrahydrofuran	109-99-9	LOEC	367 ^{mg} / _l	fathead minnow (Pimephales pro- melas)	33 d
tetrahydrofuran	109-99-9	growth rate (Er- Cx) 3%	3,700 ^{mg} / _l	algae (Scenedesmus quadricauda)	8 d
tetrahydrofuran	109-99-9	growth rate (Er- Cx) 20%	800 ^{mg} / _l	Bacteria (activated sludge)	30 min

12.2 Persistence and degradability

Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time
tetrahydrofuran	109-99-9	oxygen depletion	39 %	28 d

Biodegradation

No data available.

Persistence

No data available.

12.3 Bioaccumulative potential

Test data are not available for the complete mixture.

Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW
tetrahydrofuran	109-99-9		0.45 (25 °C)

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

None of the ingredients are listed.

12.7 Other adverse effects

Data are not available.

Remarks

Wassergefährdungsklasse, WGK (water hazard class): 1

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1 UN number

UN RTDG	UN
	1133
IMDG-Code	UN
	1133
ICAO-TI	UN
	1133
UN proper shipping name	
UN RTDG	ADHESIVES
IMDG-Code	ADHESIVES
ICAO-TI	Adhesives
Transport hazard class(es)	

14.2

14.3

	UN RTDG	3
	IMDG-Code	3
	ICAO-TI	3
14.4	Packing group	
	UN RTDG	II
	IMDG-Code	II
	ICAO-TI	II
14.5	Environmental hazards	-
14.6	Special precautions for user	-
14.7	Transport in bulk according to Annex II of MARPOL and the IBC Code	-

14.8 Information for each of the UN Model Regulations

Transport information National regulations Additional information (UN RTDG)

UN number	1133
Proper shipping name	ADHESIVES
Class	3
Packing group	II
Danger label(s)	3
Special provisions (SP)	- (UN RTDG)
Excepted quantities (EQ)	E2 (UN RTDG)
Limited quantities (LQ)	5 L (UN RTDG)
International Maritime Dangerous Goods Co	ode (IMDG) Additional information
Marine pollutant	-
Danger label(s)	3
Special provisions (SP)	-
Excepted quantities (EQ)	E2

Limited quantities (LQ)	5 L
EmS	F-E, S-D
Stowage category	В
International Civil Aviation Organization (IC	AO-IATA/DGR) Additional information
Danger label(s)	3
•	
Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

There is no additional information.

National regulations (Australia)

Australian Inventory of Chemical Substances (AICS)

All ingredients are listed or exempt from listing.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier. Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations	
Acute Tox.	Acute toxicity	
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)	
BCF	Bioconcentration factor	
Carc.	Carcinogenicity	
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical sub- stances)	
DGR	Dangerous Goods Regulations (see IATA/DGR)	
DNEL	Derived No-Effect Level	
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance caus- ing 50 % changes in response (e.g. on growth) during a specified time interval	

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Abbr.	Descriptions of used abbreviations	
EmS	Emergency Schedule	
Eye Dam.	Seriously damaging to the eye	
Eye Irrit.	Irritant to the eye	
Flam. Liq.	Flammable liquid	
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations	
IATA	International Air Transport Association	
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)	
ICAO	International Civil Aviation Organization	
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air	
IMDG	International Maritime Dangerous Goods Code	
IMDG-Code	International Maritime Dangerous Goods Code	
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval	
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality dur- ing a specified time interval	
LOEC	Lowest Observed Effect Concentration	
log KOW	n-Octanol/water	
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")	
NOEC	No Observed Effect Concentration	
PBT	Persistent, Bioaccumulative and Toxic	
PNEC	Predicted No-Effect Concentration	
ppm	Parts per million	
STEL	Short-term exposure limit	
STOT SE	Specific target organ toxicity - single exposure	
TWA	Time-weighted average	
UN RTDG	UN Recommendations on the Transport of Dangerous Good	
vPvB	Very Persistent and very Bioaccumulative	
WES	Safe Work Australia: Workplace exposure standards for airborne conatminants	

Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties. Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	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.	

Responsible for the safety data sheet

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Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.



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