

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

PVC-Cold-Welding Agent

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

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

1.1 Product identifier

Trade name PVC-Cold-Welding Agent

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

Registration number (REACH)Not relevant (mixture).

CAS number not relevant (mixture)

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

Relevant identified usesSeam sealing of PVC-Floor- and Wallcoverings,

PVC-Foils

1.3 Details of the supplier of the safety data sheet

Werner Müller GmbH Telephone: ++49 (0) 6233-3793-0
Rudolf-Diesel-Str. 7 Telefax: ++49 (0) 6233-3793-20
D-67227 Frankenthal e-mail: info@mueller-pvc-naht.de
Germany Website: www.mueller-pvc-naht.de

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 according to Regulation (EC) No 1272/2008 (CLP)

Classification						
Section	Hazard class	Category	Hazard class and category	Hazard state- ment		
2.6	flammable liquid	2	Flam. Liq. 2	H225		

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Classification						
Section	Hazard class	Category	Hazard class and category	Hazard state- ment		
3.10	acute toxicity (oral)	4	Acute Tox. 4	H302		
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319		
3.6	carcinogenicity	2	Carc. 2	H351		

3

3

STOT SE 3

STOT SE 3

H335

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

3.8R

3.8D

Labelling according to Regulation (EC) No 1272/2008 (CLP)

specific target organ toxicity - single expos-

ure (respiratory tract irritation)

specific target organ toxicity - single expos-

ure (narcotic effects, drowsiness)

Signal word Danger

Pictograms

GHS02, GHS07, GHS08







Hazard statements

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.

Precautionary statements

_	
P101	If medical advice is needed, have product container or label at hand.
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, hot surfaces, sparks, open flames and other ignition
	sources. No smoking.
P233	Keep container tightly closed.
P280	Wear protective gloves/protective clothing.
P312	Call a POISON CENTRE/doctor if you feel unwell.
P501	Dispose of contents/container in accordance with local/regional/national/interna-
	tional regulations.

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Supplemental hazard information

EUH019 May form explosive peroxides.

Tactile warning of danger Yes

Hazardous ingredients for labelling tetrahydrofuran

2.3 Other hazards

Results of PBT and vPvB assessment

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture).

3.2 Mixtures

Description of the mixture

Hazardous ingredients

Name of sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Specific Conc. Limits	M-Factors
tetrahydrofuran	CAS No 109-99-9 EC No 203-726-8 REACH Reg. No 01- 2119444314- 46-xxxx	75 - < 90	Flam. Liq. 2 / H225 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 %	

Name of sub- stance	CAS No	Specific Conc. Limits	M-Factors	ATE	Exposure route
tetrahydrofuran	109-99-9	Eye Irrit. 2; H319: C ≥ 25 % STOT SE 3; H335: C ≥ 25 %		1,650 ^{mg} / _{kg}	oral

for full text of H-phrases: see SECTION 16

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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

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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.

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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

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
EU	tetrahydrofuran	109-99-9	IOELV	50	150	100	300		2000/39/EC
GB	tetrahydrofuran	109-99-9	WEL	50	150	100	300		EH40/2005

Notation

TWA

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

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/	human, inhalat-	worker (industry)	chronic - system-	

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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	
			m³	ory		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	human, dermal	consumer (private	chronic - system-	

human, oral

human, inhalat-

ory

human, inhalat-

ory

consumer (private

households)

worker (industry)

consumer (private

households)

chronic - system-

ic effects

chronic - local ef-

fects

chronic - local ef-

fects

109-99-9

109-99-9

109-99-9

DNEL

DNEL

DNEL

1.5 mg/kg

bw/day

150 mg/m³

75 mg/m³

•						
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		
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.

tetrahydrofuran

tetrahydrofuran

tetrahydrofuran

Individual protection measures (personal protective equipment)

Eye/face protection

Short-term (single instance): Not required.

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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 $\,$ 65 $^{\circ}\mathrm{C}$

range (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

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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 $0.9 - 1 \, {}^{9}/_{cm^3}$ at 20 ${}^{\circ}\text{C}$

Vapour density These information are not available

Relative vapour density 2.5 at 20 °C (air = 1)

(THF)

Particle characteristics No data available

Other safety parameters

Relative self-ignition temperature for solids Not relevant

(Fluid)

9.2 Other information

Information with regard to physical hazard

classes

Flammable liquids

Sustained combustibility Yes

Other safety characteristics There is no additional information

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.

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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 hazard classes as defined in Regulation (EC) No 1272/2008

Classification procedure

If not otherwise specified the classification is based on:

Ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

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.

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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.

11.2 Information on other hazards

There is no additional information.

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

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

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Name of substance	CAS No	Endpoint	Value	Species	Exposure time
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

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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

instruments

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1	UN number	
	ADR/RID/ADN	1133
	IMDG-Code	1133
	ICAO-TI	1133
14.2	UN proper shipping name	
	ADR/RID/ADN	ADHESIVES
	IMDG-Code	ADHESIVES
	ICAO-TI	Adhesives
14.3	Transport hazard class(es)	
	ADR/RID/ADN	3
	IMDG-Code	3
	ICAO-TI	3
14.4	Packing group	
	ADR/RID/ADN	II
	IMDG-Code	II
	ICAO-TI	II
14.5	Environmental hazards	-
14.6	Special precautions for user	-
14.7	Maritime transport in bulk according to IMO	-

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14.8 Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) Additional information

Classification code	F1
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Danger label(s) 3



Special provisions (SP) 640D

Excepted quantities (EQ) E2

Limited quantities (LQ) 5 L

Transport category (TC) 2

Tunnel restriction code (TRC) D/E

Hazard identification No 33

Emergency Action Code 3YE

International Maritime Dangerous Goods Code (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 B

International Civil Aviation Organization (ICAO-IATA/DGR) Additional information

Danger label(s) 3



Special provisions (SP) A3

Excepted quantities (EQ) E2

Limited quantities (LQ) 1 L

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SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

Name of substance	Name acc. to inventory	CAS No	Restriction
PVC-Cold-Welding Agent	this product meets the criteria for classi- fication in accordance with Regulation No 1272/2008/EC		R3
tetrahydrofuran	flammable / pyrophoric		R40

Legend

- R3 1. Shall not be used in:
 - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
 - tricks and jokes,
 - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
 - 2. Articles not complying with paragraph 1 shall not be placed on the market.
 - 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
 - can be used as fuel in decorative oil lamps for supply to the general public, and,
 - present an aspiration hazard and are labelled with R65 or H304,
 - 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
 - 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
 - (a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil or even sucking the wick of lamps may lead to life-threatening lung damage';
 - (b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
 - (c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
 - 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
 - 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.

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Legend

R40

- 1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:
- metallic glitter intended mainly for decoration,
- artificial snow and frost,
- 'whoopee' cushions,
- silly string aerosols,
- imitation excrement,
- horns for parties,
- decorative flakes and foams,
- artificial cobwebs,
- stink bombs.
- 2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:

'For professional users only'.

- 3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/324/EEC (2).
- 4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

None of the ingredients are listed.

Seveso Directive

2012/18/EU (Seveso III)					
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes		
P5c	flammable liquids (cat. 2, 3)	5,000 50,000	51)		

Notation

51) flammable liquids, categories 2 or 3 not covered by P5a and P5b

Directive on industrial emissions (VOCs, 2010/75/EU)

VOC content	75 – 95 %
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Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

None of the ingredients are listed.

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

None of the ingredients are listed.

Water Framework Directive (WFD)

None of the ingredients are listed.

United Kingdom: en Page: 17 / 21

Regulation 98/2013/EU on the marketing and use of explosives precursors

None of the ingredients are listed.

Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)

None of the ingredients are listed.

Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)

None of the ingredients are listed.

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

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
1.1	Trade name: PVC-Cold-Welding	Trade name: PVC-Cold-Welding Agent
	PVC-Cold-Welding Liquid Type A PVC-Cold-Welding Paste Type C PVC-Cold-Welding Paste Type T	PVC-Cold-Welding Liquid Type A PVC-Cold-Welding Paste Type C PVC-Cold-Welding Paste Type T
1.3	e-mail (competent person): sdb@csb-online.de	e-mail (competent person): sdb@csb-online.de
	Please do not use this e-mail adress to ask for the latest safety data sheet. For this purpose contact Werner Müller GmbH.	Please do not use this e-mail address to ask for the latest safety data sheet. For this purpose contact Werner Müller GmbH.
1.3	National contact: Herr Pisek info@mueller-pvc-naht.de	National contact: Herr Gaub info@mueller-pvc-naht.de
3.2		Hazardous ingredients: change in the listing (table)
3.2		Hazardous ingredients: change in the listing (table)
8.1		Relevant PNECs of components of the mixture: change in the listing (table)
15.1		Restrictions according to REACH, Annex XVII: change in the listing (table)

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Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de nav- igation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ADR/RID/ADN	European Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/In- land Waterways (ADR/RID/ADN)
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
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 causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-li- cence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
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

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Abbr.	Descriptions of used abbreviations
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
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 during a specified time interval
LOEC	Lowest Observed Effect Concentration
log KOW	n-Octanol/water
NLP	No-Longer Polymer
NOEC	No Observed Effect Concentration
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
SVHC	Substance of Very High Concern
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

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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

C.S.B. GmbH Telephone: +49 (0) 2151 - 652086 - 0 Telefax: +49 (0) 2151 - 652086 - 9 Düsseldorfer Str. 113 47809 Krefeld, Germany

e-Mail: info@csb-online.de Website: www.csb-online.de

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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