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## Formaldehyde solution 23,5 %, low-methanol

article number: **6742** Version: **4.0 en** Replaces version of: 2018-12-11 Version: (3)

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

1.1 Product identifier

Identification of the substance

Article number

**Registration number (REACH)** 

Formaldehyde solution 23,5 %, low-methanol

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not relevant (mixture)

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

Relevant identified uses:

Uses advised against:

Laboratory chemical Laboratory and analytical use

Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

# **1.3** Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG Schoemperlenstr. 3-5 D-76185 Karlsruhe Germany

**Telephone:**+49 (0) 721 - 56 06 0 **Telefax:** +49 (0) 721 - 56 06 149 **e-mail:** sicherheit@carlroth.de **Website:** www.carlroth.de

Competent person responsible for the safety data :Department Health, Safety and Environment sheet:

e-mail (competent person):

#### sicherheit@carlroth.de

# 1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Service City Hospital	Dudley Rd	B187QH Birmingham	844 892 0111	

# **SECTION 2: Hazards identification**

# 2.1 Classification of the substance or mixture

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

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
3.10	Acute toxicity (oral)	4	Acute Tox. 4	H302
3.1D	Acute toxicity (dermal)	4	Acute Tox. 4	H312
3.1I	Acute toxicity (inhal.)	4	Acute Tox. 4	H332
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315

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



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Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
3.3	Serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.4S	Skin sensitisation	1	Skin Sens. 1	H317
3.5	Germ cell mutagenicity	2	Muta. 2	H341
3.6	Carcinogenicity	1B	Carc. 1B	H350
3.8R	Specific target organ toxicity - single exposure (respirat- ory tract irritation)	3	STOT SE 3	H335

For full text of abbreviations: see SECTION 16

#### 2.2 Label elements

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

Danger

Signal word

Pictograms

GHS07, GHS08



#### **Hazard statements**

H302+H312+H332 H315 H317 H319 H335 H341	Harmful if swallowed, in contact with skin or if inhaled Causes skin irritation May cause an allergic skin reaction Causes serious eye irritation May cause respiratory irritation Suspected of causing genetic defects
H341	Suspected of causing genetic defects
H350	May cause cancer

## **Precautionary statements**

#### **Precautionary statements - prevention**

P261	Avoid breathing gas/mist/vapours/spray
P280	Wear protective gloves/protective clothing/eye protection/face protection

#### **Precautionary statements - response**

P301+P330+P331 P303+P361+P353	IF SWALLOWED: rinse mouth. Do NOT induce vomiting IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin
P305+P351+P338	with water [or shower] IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
P308+P313	lenses, if present and easy to do. Continue rinsing IF exposed or concerned: Get medical advice/attention

## For professional users only

#### Hazardous ingredients for labelling:

Formaldehyde ... %, Methanol

Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

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

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H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
P261	Avoid breathing gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
contains:	Formaldehyde %, Methanol

#### 2.3 Other hazards

This material is combustible, but will not ignite readily.

#### 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**

Name of sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Formaldehyde %	CAS No 50-00-0 EC No 200-001-8 Index No 605-001-00-5 REACH Reg. No 01-2119488953- 20-xxxx	≥23-<25	Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 3 / H331 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Skin Sens. 1 / H317 Muta. 2 / H341 Carc. 1B / H350 STOT SE 3 / H335		B D GHS-HC IARC: 1 IOELV RoC "Known"
Methanol	CAS No 67-56-1 EC No 200-659-6 Index No 603-001-00-X REACH Reg. No 01-2119433307- 44-xxxx	≤2	Flam. Liq. 2 / H225 Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 3 / H331 STOT SE 1 / H370		GHS-HC IOELV

#### Notes

B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

D: Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/ 2008/EC, Annex VI)

IARC: 1: IARC group 1: carcinogenic to humans (International Agency for Research on Cancer)

IOELV: Substance with a community indicative occupational exposure limit value

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



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RoC NTP-RoC: Known To Be A Human Carcinogen "Known" :

Name of sub- stance	Identifier	Specific Conc. Limits	<b>M-Factors</b>	ATE	Exposure route
Formaldehyde %	CAS No 50-00-0 EC No 200-001-8 Index No 605-001-00-5	Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 5 % ≤ C < 25 % Eye Dam. 1; H318: C ≥ 25 % Eye Irrit. 2; H319: 5 % ≤ C < 25 % Skin Sens. 1; H317: C ≥ 0,2 % STOT SE 3; H335: C ≥ 5 %	-	100 <sup>mg</sup> / <sub>kg</sub> 300 <sup>mg</sup> / <sub>kg</sub> 3 <sup>mg</sup> / <sub>/</sub> /4h	oral dermal inhalation: va- pour
Methanol	CAS No 67-56-1 EC No 200-659-6 Index No 603-001-00-X	STOT SE 1; H370: C ≥ 10 % STOT SE 2; H371: 3 % ≤ C < 10 %	-	100 <sup>mg</sup> / <sub>kg</sub> 300 <sup>mg</sup> / <sub>kg</sub> 3 <sup>mg</sup> / <sub>l</sub> /4h	oral dermal inhalation: va- pour

For full text of abbreviations: see SECTION 16

# **SECTION 4: First aid measures**

### 4.1 Description of first aid measures



#### **General notes**

Take off contaminated clothing.

#### **Following inhalation**

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower. After contact with skin, wash immediately with plenty of water. In case of skin reactions, consult a physician. In case of skin irritation, consult a physician.

#### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

#### **Following ingestion**

Rinse mouth with water (only if the person is conscious). In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

## 4.2 Most important symptoms and effects, both acute and delayed

Vomiting, Allergic reactions, Irritation, Cough, Dyspnoea, Headache, Vertigo, Dizziness, Unconsciousness, Spasms

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

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



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# SECTION 5: Firefighting measures

## 5.1 Extinguishing media



## Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

water jet

#### 5.2 Special hazards arising from the substance or mixture

Ingredients of the mixture combustible. The product itself does not burn. Vapours may form explosive mixtures with air.

#### Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

# SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures



#### For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

#### 6.3 Methods and material for containment and cleaning up

#### Advice on how to contain a spill

Covering of drains.

#### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### 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.

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# **SECTION 7: Handling and storage**

# 7.1 Precautions for safe handling

Provision of sufficient ventilation. Use extractor hood (laboratory). Avoid exposure.

## Measures to prevent fire as well as aerosol and dust generation



Keep away from sources of ignition - No smoking.

## Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

## 7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. May cause decomposition by long-term light influence.

## Incompatible substances or mixtures

Observe hints for combined storage.

#### Protect against external exposure, such as

high temperatures, direct light irradiation

#### Consideration of other advice:

#### **Ventilation requirements**

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted.

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

## 7.3 Specific end use(s)

No information available.

# **SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

#### **National limit values**

#### **Occupational exposure limit values (Workplace Exposure Limits)**

Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m³]	STE L [pp m]	STEL [mg/ m³]	Ceil ing- C [pp m]	Ceil- ing-C [mg/ m³]	Nota- tion	Source
EU	formaldehyde	50-00-0	IOELV	0,3	0,37	0,74	0,6			sect	2019/ 983/EU
EU	formic acid	64-18-6	IOELV	5	9						2006/15/ EC
EU	methanol	67-56-1	IOELV	200	260						2006/15/ EC
GB	formaldehyde	50-00-0	WEL	2	2,5	2	2,5				EH40/ 2005

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Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m³]	STE L [pp m]	STEL [mg/ m³]	Ceil ing- C [pp m]	Ceil- ing-C [mg/ m³]	Nota- tion	Source
GB	formic acid	64-18-6	WEL	5	9,6						EH40/ 2005
GB	methanol	67-56-1	WEL	200	266	250	333				EH40/ 2005

Notation

Ceiling-C sect STEL

TWA

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Ceiling value is a limit value above which exposure should not occur Limit value of 0,62 mg/m3 or 0,5 ppm for the health care, funeral and embalming sectors until 11 July 2024 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	
Formaldehyde %	50-00-0	DNEL	9 mg/m³	human, inhalat- ory	worker (industry)	chronic - systemic effects	
Formaldehyde %	50-00-0	DNEL	0,375 mg/ m <sup>3</sup>	human, inhalat- ory	worker (industry)	chronic - local ef- fects	
Formaldehyde %	50-00-0	DNEL	0,75 mg/ m³	human, inhalat- ory	worker (industry)	acute - local ef- fects	
Formaldehyde %	50-00-0	DNEL	240 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects	
Formaldehyde %	50-00-0	DNEL	37 µg/cm²	human, dermal	worker (industry)	chronic - local ef- fects	
Methanol	67-56-1	DNEL	130 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	chronic - systemic effects	
Methanol	67-56-1	DNEL	130 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	acute - systemic effects	
Methanol	67-56-1	DNEL	130 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	chronic - local ef- fects	
Methanol	67-56-1	DNEL	130 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	acute - local ef- fects	
Methanol	67-56-1	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects	
Methanol	67-56-1	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects	

Relevant PNECs of components of the mixture								
Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time		
Formaldehyde %	50-00-0	PNEC	0,44 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)		
Formaldehyde %	50-00-0	PNEC	0,44 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)		

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Relevant PNECs	Relevant PNECs of components of the mixture								
Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time			
Formaldehyde %	50-00-0	PNEC	0,19 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)			
Formaldehyde %	50-00-0	PNEC	2,3 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)			
Formaldehyde %	50-00-0	PNEC	C 2,3 <sup>mg</sup> / <sub>kg</sub> aquatic organ- marine sedime					short-term (single instance)	
Formaldehyde %	50-00-0	PNEC	0,2 <sup>mg</sup> / <sub>kg</sub>	terrestrial organ- isms	soil	short-term (single instance)			
Methanol	67-56-1	PNEC	20,8 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)			
Methanol	67-56-1	PNEC	2,08 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)			
Methanol	67-56-1	PNEC	100 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)			
Methanol	67-56-1	PNEC	77 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)			
Methanol	67-56-1	PNEC	7,7 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	marine sediment	short-term (single instance)			
Methanol	67-56-1	PNEC	100 <sup>mg</sup> / <sub>kg</sub>	terrestrial organ- isms	soil	short-term (single instance)			

# 8.2 Exposure controls

# Individual protection measures (personal protective equipment)

# Eye/face protection



Use safety goggle with side protection.

#### **Skin protection**



#### hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a consider-able reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

#### • type of material

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

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Butyl caoutchouc (butyl rubber)

#### material thickness

0,4 mm

#### • breakthrough times of the glove material

>480 minutes (permeation: level 6)

#### other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

#### **Respiratory protection**



Respiratory protection necessary at: Aerosol or mist formation. Type: ABEK (combined filters against gases and vapours, colour code: Brown/Grey/Yellow/Green).

#### **Environmental exposure controls**

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	stinging
Melting point/freezing point	-15 °C
Boiling point or initial boiling point and boiling range	97 °C
Flammability	non-combustible
Lower and upper explosion limit	7 vol% - 73 vol% (anhydrous)
Flash point	>79 °C
Auto-ignition temperature	>300 °C
Decomposition temperature	not relevant
pH (value)	4 (20 °C)
Kinematic viscosity	2,056 <sup>mm²</sup> / <sub>s</sub> at 20 °C
Solubility(ies)	
Water solubility	miscible in any proportion
Partition coefficient	
Partition coefficient n-octanol/water (log value):	this information is not available
Vapour pressure	not determined

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Density

Relative vapour density

Particle characteristics

Other safety parameters

Oxidising properties

# 9.2 Other information

Information with regard to physical hazard classes:

Other safety characteristics:

Miscibility

Temperature class (EU, acc. to ATEX)

1,07 <sup>g</sup>/<sub>cm<sup>3</sup></sub> at 20 °C information on this property is not available

not relevant (liquid)

none

hazard classes acc. to GHS (physical hazards): not relevant

completely miscible with water

T2 Maximum permissible surface temperature on the equipment: 300°C

# **SECTION 10: Stability and reactivity**

## 10.1 Reactivity

Danger of polymerisation.

#### If heated

Vapours may form explosive mixtures with air.

#### 10.2 Chemical stability

May cause decomposition by long-term light influence. To stabilise: Methanol.

# 10.3 Possibility of hazardous reactions

**Exothermic reaction with:** Alkalis, Permanganates, strong oxidiser, Aniline, **Violent reaction with:** Acids, Phenol, Nitric acid, Hydrogen peroxide, => Explosive properties

#### 10.4 Conditions to avoid

Direct light irradiation. Keep away from heat.

# **10.5** Incompatible materials

different metals

# 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

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



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# **SECTION 11: Toxicological information**

## 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Test data are not available for the complete mixture.

#### **Classification procedure**

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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

#### Acute toxicity

Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.

Acute toxicity estimate (ATE) of components of the mixture					
Name of substance	CAS No	Exposure route	ATE		
Formaldehyde %	50-00-0	oral	100 <sup>mg</sup> / <sub>kg</sub>		
Formaldehyde %	50-00-0	dermal	300 <sup>mg</sup> / <sub>kg</sub>		
Formaldehyde %	50-00-0	inhalation: vapour	3 <sup>mg</sup> / <sub>l</sub> /4h		
Methanol	67-56-1	oral	100 <sup>mg</sup> / <sub>kg</sub>		
Methanol	67-56-1	dermal	300 <sup>mg</sup> / <sub>kg</sub>		
Methanol	67-56-1	inhalation: vapour	3 <sup>mg</sup> / <sub>l</sub> /4h		

#### Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Methanol	67-56-1	inhalation: va- pour	LC50	131 <sup>mg</sup> / <sub>l</sub> /4h	rat
Methanol	67-56-1	oral	LD50	5.628 <sup>mg</sup> / <sub>kg</sub>	rat
Methanol	67-56-1	oral	LDLo	143 <sup>mg</sup> / <sub>kg</sub>	human
Methanol	67-56-1	dermal	LD50	15.800 <sup>mg</sup> / <sub>kg</sub>	rabbit

# Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

May cause an allergic skin reaction.

#### Germ cell mutagenicity

Suspected of causing genetic defects.

#### Carcinogenicity

May cause cancer.

#### **Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

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#### Specific target organ toxicity - single exposure

May cause respiratory irritation.

#### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

#### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

#### Symptoms related to the physical, chemical and toxicological characteristics

#### • If swallowed

Data are not available.

• If in eyes

Causes serious eye irritation

#### • If inhaled

vertigo, headache, Irritation to respiratory tract, cough, Dyspnoea

#### • If on skin

causes skin irritation, May produce an allergic reaction, pruritis, localised redness

#### Other information

Other adverse effects: Spasms, Blood pressure drop, Liver and kidney damage, Dizziness, Unconsciousness

#### **11.2** Endocrine disrupting properties

None of the ingredients are listed.

11.3 Information on other hazards

There is no additional information.

# **SECTION 12: Ecological information**

## 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
Formaldehyde %	50-00-0	LC50	6,7 <sup>mg</sup> / <sub>l</sub>	fish	96 h
Formaldehyde %	50-00-0	EC50	5,8 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h
Formaldehyde %	50-00-0	ErC50	4,89 <sup>mg</sup> / <sub>l</sub>	algae	72 h
Methanol	67-56-1	LC50	15.400 <sup>mg</sup> / <sub>l</sub>	fish	96 h
Methanol	67-56-1	ErC50	22.000 <sup>mg</sup> / <sub>l</sub>	algae	96 h

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Aquatic toxicity (chronic) of components of the mixture							
Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time		
Formaldehyde %	50-00-0	EC50	19 <sup>mg</sup> / <sub>l</sub>	microorganisms	3 h		

#### **Biodegradation**

Data are not available.

## 12.2 Process of degradability

Degradability of components of the mixture							
Name of substance	CAS No	Process	Degrada- tion rate	Time	Method	Source	
Formaldehyde %	50-00-0	DOC removal	99 %	28 d		ECHA	
Methanol	67-56-1	biotic/abiotic	99 %	30 d			
Methanol	67-56-1	oxygen deple- tion	69 %	5 d		ECHA	

## 12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture					
Name of substance	CAS No	BCF	Log KOW	BOD5/COD	
Methanol	67-56-1		-0,77		

# 12.4 Mobility in soil

Data are not available.

#### 12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

None of the ingredients are listed.

# 12.7 Other adverse effects

Data are not available.

# **SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains.

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

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#### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Waste catalogue ordinance (Germany).

#### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

not assigned

not assigned

gerous goods regulations

none

not subject to transport regulations

non-environmentally hazardous acc. to the dan-

## **SECTION 14: Transport information**

- 14.1 UN number or ID number
- 14.2 UN proper shipping name
- 14.3 Transport hazard class(es)
- 14.4 Packing group
- 14.5 Environmental hazards

# 14.6 Special precautions for user

There is no additional information.

#### 14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

#### 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

Not subject to ADR, RID and ADN.

**International Maritime Dangerous Goods Code (IMDG) - Additional information** Not subject to IMDG.

**International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information** Not subject to ICAO-IATA.

# **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** 

Dangerous substances with restrictions (REACH, Annex XVII)						
Name of substance	Name acc. to inventory	CAS No	Restriction	No		
Formaldehyde solution	this product meets the criteria for classification in accordance with Reg- ulation No 1272/2008/EC		R3	3		
Formaldehyde %	formaldehyde	50-00-0	R72	72		
Formaldehyde %	carcinogenic		R28-30	28		
Formaldehyde %	substances in tattoo inks and perman- ent make-up		R75	75		
Methanol	methanol	67-56-1	R69	69		

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



# Formaldehyde solution 23,5 %, low-methanol

#### article number: 6742

Dangerous substances with restrictions (REACH, Annex XVII)						
Name of substance	Name acc. to inventory	CAS No	Restriction	Νο		
Methanol	flammable / pyrophoric		R40	40		

#### Leaend

R28-30 1. Shall not be placed on the market, or used,

- as substances - as constituents of other substances, or,

in mixtures

for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than:

either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or,
 the relevant concentration specified in Directive 1999/45/EC where no specific concentration limit is set out in Part 3 of Annex VI to Regulation (EC) No 1272/2008.
 Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of substances and mixtures is marked within the packaging of the supplication.

such substances and mixtures is marked visibly, legibly and indelibly as follows:

'Restricted to professional users'

2. By way of derogation, paragraph 1 shall not apply to:
(a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC;
(b) cosmetic products as defined by Directive 76/768/EEC;
(c) the following fuels and oil products:
- motor fuels which are covered by Directive 98/70/EC,
- motor fuels which are covered by Directive 28/70/EC,

- mineral oil products intended for use as fuel in mobile or fixed combustion plants,

- fuels sold in closed systems (e.g. liquid gas bottles);
(d) artists' paints covered by Directive 1999/45/EC;
(e) the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix 11, column 2. Where a date is specified in column 2 of Appendix 11, the derogation shall apply until the said date;
(f) devices covered by Regulation (EU) 2017/745.
1. Shall not be used in:
arpamental articles intended to produce light or colour offects by means of different phases, for example in orpa

R3

- 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

a can be used as fuel in decorative oil lamps for supply to the general public, and
 present an aspiration hazard and are labelled with 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 Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:

(a) lamp oils, labelled with 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 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 fluid may lead to life threatening lung damage';
(c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black and grill lighters, labelled with H304 intended for supply to the general public are packaged in black

opaque containers not exceeding 1 litre by 1 December 2010.

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.

Shall not be placed on the market to the general public after 9 May 2019 in windscreen washing or defrosting fluids, in a concentration equal to or greater than 0,6 % by weight. R69

R40

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

# Formaldehyde solution 23,5 %, low-methanol



#### article number: 6742

#### Legend R72

 Shall not be placed on the market after 1 November 2020 in any of the following:

 (a) clothing or related accessories;
 (b) textiles other than clothing which, under normal or reasonably foreseeable conditions of use, come into contact

 with human skin to an extent similar to clothing;

(c) footwear; if the clothing, related accessory, textile other than clothing or footwear is for use by consumers and the substance is the clothing, related accessory, textile other than clothing or footwear is for use by consumers and the substance is present in a concentration, measured in homogeneous material, equal to or greater than that specified for that sub-2. By way of derogation, in relation to the placing on the market of formaldehyde [CAS No 50-00-0] in jackets, coats or

upholstery, the relevant concentration for the purposes of paragraph 1 shall be 300 mg/kg during the period between 1 November 2020 and 1 November 2023. The concentration specified in Appendix 12 shall apply thereafter. Paragraph 1 shall not apply to:

(a) clothing, related accessories or footwear, or parts of clothing, related accessories or footwear, made exclusively of natural leather, fur or hide; (b) non-textile fasteners and non-textile decorative attachments;

(c) second-hand clothing, related accessories, textiles other than clothing or footwear (d) wall-to-wall carpets and textile floor coverings for indoor use, rugs and runners.

4. Paragraph 1 shall not apply to clothing, related accessories, textiles other than clothing, or footwear within the scope of Regulation (EU) 2016/425 of the European Parliament and of the Council (\*) or Regulation (EU) 2017/745 of the European Parliament and of the Council (\*\*).

5. Paragraph 1(b) shall not apply to disposable textiles. 'Disposable textiles' means textiles that are designed to be used only once or for a limited time and are not intended for subsequent use for the same or a similar purpose. 6. Paragraphs 1 and 2 shall apply without prejudice to the application of any stricter restrictions set out in this Annex or in other applicable Union legislation.

7. The Commission shall review the exemption in paragraph 3(d) and, if appropriate, modify that point accordingly. (\*) Regulation (EU) 2016/425 of the European Parliament and of the Council of of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (OJ L 81, 31.3.2016, p. 51). (\*\*) Regulation (EU) 2017/745 of the European Parliament and of the Council of 5 April 2017 on medical devices, amending Directive 2001/83/EC, Regulation (EC) No 178/2002 and Regulation (EC) No 1223/2009 and repealing Coun-

cil Directives 90/385/EEC and 93/42/EEC (OJ L 117, 5.5.2017, p. 1).

Formaldehyde solution 23,5 %, low-methanol



#### .....

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





#### article number: 6742

#### Legend

9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

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

None of the ingredients are listed. (Or Concentration of the substance in a mixture: <0.1 % Mass concentration)

#### **Seveso Directive**

2012/	2012/18/EU (Seveso III)							
Νο	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the ap- plication of lower and upper-tier re- quirements	Notes					
	not assigned							

#### **Deco-Paint Directive**

#### Industrial Emissions Directive (IED)

VOC content	24,55 %
VOC content	1.070 <sup>g</sup> / <sub>l</sub>
VOC content Water content was discounted	1.378 <sup>g</sup> / <sub>l</sub>

# Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

# Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

#### Water Framework Directive (WFD)

ist of pollutants (WFD)				
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
Formaldehyde %	Substances and preparations, or the breakdown products of such, which have been proved to pos- sess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine- related functions in or via the aquatic environment		A)	

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



# Formaldehyde solution 23,5 %, low-methanol

#### article number: 6742

## List of pollutants (WFD)

Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
Methanol	Substances and preparations, or the breakdown products of such, which have been proved to pos- sess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine- related functions in or via the aquatic environment		A)	

Legend A)

Indicative list of the main pollutants

#### Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

#### **Regulation on drug precursors**

none of the ingredients are listed

## Regulation on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

### Regulation concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

#### **Regulation on persistent organic pollutants (POP)**

none of the ingredients are listed

#### **Other information**

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

#### **National inventories**

Country	Inventory	Status
AU	AICS	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed

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





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Country	Inventory	Status
US	TSCA	all ingredients are listed
DSL ECSI IECSC INSQ ISHA-ENCS KECI NZIoC PICCS	Domestic Substances List EC Substance Inventory (I Inventory of Existing Chei National Inventory of Che Inventory of Existing and Korea Existing Chemicals New Zealand Inventory of	Control Regulation Chemical Substances (CSCL-ENCS) (DSL) EINECS, ELINCS, NLP) mical Substances Produced or Imported in China emical Substances New Chemical Substances (ISHA-ENCS) Inventory f Chemicals nemicals and Chemical Substances (PICCS) nces ce Inventory

# 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

# **SECTION 16: Other information**

## Indication of changes (revised safety data sheet)

Alignment to regulation: Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.1		Classification according to Regulation (EC) No 1272/2008 (CLP): change in the listing (table)	yes
2.2		Pictograms: change in the listing (table)	yes
2.2		Hazard statements: change in the listing (table)	yes
2.2		Precautionary statements - response: change in the listing (table)	yes
2.2	Hazardous ingredients for labelling: Formaldehyde %	Hazardous ingredients for labelling: Formaldehyde %, Methanol	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2	contains: Formaldehyde %	contains: Formaldehyde %, Methanol	yes
2.3	Other hazards: There is no additional information.	Other hazards: This material is combustible, but will not ignite readily.	yes

Restructuring: section 9, section 14

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



# Formaldehyde solution 23,5 %, low-methanol

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Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.3		Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.	yes

# Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2006/15/EC	Commission Directive establishing a second list of indicative occupational exposure limit values in imple- mentation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC
2019/983/EU	Directive of the European Parliament and of the Council amending Directive 2004/37/EC on the protec- tion of workers from the risks related to exposure to carcinogens or mutagens at work
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de naviga- tion intérieures (European Agreement concerning the International Carriage of Dangerous Goods by In- land Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
COD	Chemical oxygen demand
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 identi- fier 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
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
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 Na- tions

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



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Abbr.	Descriptions of used abbreviations
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	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
log KOW	n-Octanol/water
Muta.	Germ cell mutagenicity
NLP	No-Longer Polymer
NTP-RoC	National Toxicology Program: Report on Carcinogens
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)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
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 2020/878/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).

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



## Formaldehyde solution 23,5 %, low-methanol

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## Classification procedure

Physical and chemical properties. The classification is based on tested mixture. 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.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H370	Causes damage to organs.

#### Disclaimer

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