

# SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

## formaldehyde conc > 25% aqueous solution

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

#### 1.1. Product identifier

**Product name** : formaldehyde conc > 25% aqueous solution  
**Synonyms** : formaldehyde; formaldehyde conc > 25% in water, unstabilised; methanal  
**Registration number REACH** :  
**Product type REACH** : Mixture  
**CAS number** : 50-00-0  
**EC index number** : 605-001-00-5  
**EC number** : 200-001-8  
**Molecular mass** : 30.03 g/mol  
**Formula** : CH<sub>2</sub>O

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

##### 1.2.1 Relevant identified uses

Chemical intermediate  
 Disinfectant  
 Laboratory chemical

##### 1.2.2 Uses advised against

No uses advised against known

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

##### Manufacturer of the product

Raadpleeg uw arbodienst of uw afdeling inkoop voor informatie met betrekking tot de fabrikant, de importeur of de leverancier van het product

#### 1.4. Emergency telephone number

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Carc.	category 1B	H350: May cause cancer.
Muta.	category 2	H341: Suspected of causing genetic defects.
Acute Tox.	category 3	H331: Toxic if inhaled.
Acute Tox.	category 3	H311: Toxic in contact with skin.
Acute Tox.	category 3	H301: Toxic if swallowed.
Skin Sens.	category 1	H317: May cause an allergic skin reaction.
Skin Corr.	category 1B	H314: Causes severe skin burns and eye damage.
Eye Dam.	category 1	H318: Causes serious eye damage.
STOT SE	category 3	H335: May cause respiratory irritation.

#### 2.2. Label elements



**Signal word**

Danger

##### H-statements

H350 May cause cancer.  
 H341 Suspected of causing genetic defects.  
 H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.  
 H317 May cause an allergic skin reaction.  
 H314 Causes severe skin burns and eye damage.  
 H335 May cause respiratory irritation.

##### P-statements

P280 Wear protective gloves, protective clothing and eye protection/face protection.  
 P260 Do not breathe vapours/mist.  
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.  
**Supplemental information**  
Restricted to professional users.

## 2.3. Other hazards

Odour tolerance may develop

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
formaldehyde	50-00-0 200-001-8	C≥33%	Carc. 1B; H350 Muta. 2; H341 Acute Tox. 3; H331 Acute Tox. 3; H311 Acute Tox. 3; H301 Skin Sens. 1; H317 Skin Corr. 1B; H314 Eye Dam. 1; H318	(1)(2)(8)(10)	Constituent

- (1) For H-statements in full: see heading 16  
(2) Substance with a Community workplace exposure limit  
(8) Specific concentration limits, see heading 16  
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

#### After inhalation:

Remove the victim into fresh air. Immediately consult a doctor/medical service.

#### After skin contact:

Wash immediately with lots of water (15 minutes)/shower. Do not apply (chemical) neutralizing agents. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

#### After eye contact:

Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist.

#### After ingestion:

Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Immediately consult a doctor/medical service. Do not give chemical antidote.

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

#### 4.2.1 Acute symptoms

##### After inhalation:

Runny nose. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. EXPOSURE TO HIGH CONCENTRATIONS: Possible oedema of the upper respiratory tract. Possible laryngeal spasm/oedema. Respiratory difficulties. Risk of lung oedema.

##### After skin contact:

Caustic burns/corrosion of the skin.

##### After eye contact:

Corrosion of the eye tissue.

##### After ingestion:

Nausea. Vomiting. Diarrhoea. AFTER INGESTION OF HIGH QUANTITIES: Central nervous system depression. Dizziness. Blood in vomit. Blood in stool. Shock. Disturbances of consciousness. Change in the haemogramme/blood composition. Change in urine composition. Urine discolouration.

#### 4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### 5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher.  
Major fire: Class B foam (alcohol-resistant), Water spray if puddle cannot expand.

#### 5.1.2 Unsuitable extinguishing media:

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.  
Major fire: Water; risk of puddle expansion.

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

Upon combustion: CO and CO2 are formed.

### 5.3. Advice for firefighters

#### 5.3.1 Instructions:

Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.

#### 5.3.2 Special protective equipment for fire-fighters:

Gas-tight suit (EN 943). Corrosion-proof suit (EN 14605). Self-contained breathing apparatus (EN 136 + EN 137).

## SECTION 6: Accidental release measures

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

Keep upwind. Close doors and windows of adjacent premises. No naked flames. Keep containers closed.

#### 6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

#### 6.1.2 Protective equipment for emergency responders

Gas-tight suit (EN 943). Corrosion-proof suit (EN 14605).

Suitable protective clothing

See heading 8.2

### 6.2. Environmental precautions

Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Take account of toxic/corrosive precipitation water. Prevent soil and water pollution. Prevent spreading in sewers.

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

Take up liquid spill into absorbent material, e.g.: dry sand/earth/vermiculite. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

See heading 13.

## SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 7.1. Precautions for safe handling

Use earthed equipment. Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosionproof appliances. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Observe very strict hygiene - avoid contact. Remove contaminated clothing immediately. Do not discharge the waste into the drain. Keep container tightly closed.

### 7.2. Conditions for safe storage, including any incompatibilities

#### 7.2.1 Safe storage requirements:

Storage temperature: < 55 °C. Store in a cool area. Keep container in a well-ventilated place. Keep locked up. Provide for a tub to collect spills. Unauthorized persons are not admitted. Meet the legal requirements.

#### 7.2.2 Keep away from:

Heat sources, combustible materials, oxidizing agents, (strong) acids, (strong) bases.

#### 7.2.3 Suitable packaging material:

Stainless steel, aluminium, HDPE, LDPE (Low Density Poly Ethylene).

#### 7.2.4 Non suitable packaging material:

Steel, iron, copper, zinc, nickel, paper, cardboard, glass.

### 7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 Occupational exposure

##### a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

##### EU

Formaldehyde	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	0.3 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	0.37 mg/m <sup>3</sup> (13)
	Short time value (Indicative occupational exposure limit value)	0.6 ppm
	Short time value (Indicative occupational exposure limit value)	0.74 mg/m <sup>3</sup>

(13): Limit value of 0,62 mg/m<sup>3</sup> or 0,5 ppm (3) for the health care, funeral and embalming sectors until 11 July 2024

##### Belgium

Aldéhyde formique	Short time value	0.3 ppm (M)
	Short time value	0.38 mg/m <sup>3</sup> (M)

La mention "M" indique que lors d'une exposition supérieure à la valeur limite, des irritations apparaissent ou un danger d'intoxication aiguë existe. Le procédé de travail doit être conçu de telle façon que l'exposition ne dépasse jamais la valeur limite. Lors des mesurages, la période d'échantillonnage doit être aussi courte que possible afin de pouvoir effectuer des mesurages fiables. Le résultat des mesurages est calculé en fonction de la période d'échantillonnage.

##### The Netherlands

Formaldehyde	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	0.12 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	0.15 mg/m <sup>3</sup>
	Short time value (Public occupational exposure limit value)	0.4 ppm
	Short time value (Public occupational exposure limit value)	0.5 mg/m <sup>3</sup>

##### France

Aldéhyde formique	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	0.5 ppm
	Short time value (VL: Valeur non réglementaire indicative)	1 ppm

##### Germany

Formaldehyd	Time-weighted average exposure limit 8 h (TRGS 900)	0.3 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	0.37 mg/m <sup>3</sup>

##### UK

Formaldehyde	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	2 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	2.5 mg/m <sup>3</sup>
	Short time value (Workplace exposure limit (EH40/2005))	2 ppm
	Short time value (Workplace exposure limit (EH40/2005))	2.5 mg/m <sup>3</sup>

##### USA (TLV-ACGIH)

Formaldehyde	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	0.1 ppm
	Short time value (TLV - Adopted Value)	0.3 ppm

##### b) National biological limit values

If limit values are applicable and available these will be listed below.

#### 8.1.2 Sampling methods

Product name	Test	Number
Formaldehyde (Aldehydes, screening)	NIOSH	2539
Formaldehyde (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
Formaldehyde on Dust (Textile or Wood)	NIOSH	5700
Formaldehyde	ASTM	D 5014-94
Formaldehyde	NIOSH	2016
Formaldehyde	NIOSH	2539
Formaldehyde	NIOSH	2541
Formaldehyde	NIOSH	3500
Formaldehyde	OSHA	1007
Formaldehyde	OSHA	52
Formaldehyde	OSHA	ID 205

#### 8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

#### 8.1.4 Threshold values

##### DNEL/DMEL - Workers

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Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	9 mg/m <sup>3</sup>	
	Long-term local effects inhalation	0.375 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	0.75 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	240 mg/kg bw/day	
	Long-term local effects dermal	37 µg/cm <sup>2</sup>	

## DNEL/DMEL - General population

### formaldehyde

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	3.2 mg/m <sup>3</sup>	
	Long-term local effects inhalation	0.1 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	102 mg/kg bw/day	
	Long-term local effects dermal	12 µg/cm <sup>2</sup>	
	Long-term systemic effects oral	4.1 mg/kg bw/day	

## PNEC

### formaldehyde

Compartments	Value	Remark
Fresh water	0.44 mg/l	
Marine water	0.44 mg/l	
Fresh water (intermittent releases)	4.44 mg/l	
STP	0.19 mg/l	
Fresh water sediment	2.3 mg/kg sediment dw	
Marine water sediment	2.3 mg/kg sediment dw	
Soil	0.2 mg/kg soil dw	

### 8.1.5 Control banding

If applicable and available it will be listed below.

## 8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 8.2.1 Appropriate engineering controls

Use earthed equipment. Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosionproof appliances. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Exhaust gas must be neutralised.

### 8.2.2 Individual protection measures, such as personal protective equipment

Observe very strict hygiene - avoid contact. Do not eat, drink or smoke during work.

#### a) Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit. High vapour/gas concentration: self-contained breathing apparatus (EN 136 + EN 137).

#### b) Hand protection:

Protective gloves against chemicals (EN 374).

Materials	Measured breakthrough time	Thickness	Protection index	Remark
butyl rubber	> 480 minutes	0.7 mm	Class 6	
nitrile rubber	> 480 minutes	0.4 mm	Class 6	
viton				Excellent resistance
tetrafluoroethylene				Good resistance
polyethylene/ethylene vinylalcohol				Good resistance
neoprene				Less resistance
PVC				Less resistance
natural rubber				Poor resistance
polyethylene				Poor resistance
PVA				Poor resistance

#### c) Eye protection:

Protective goggles (EN 166).

#### d) Skin protection:

Head/neck protection. Corrosion-proof clothing (EN 14605).

### 8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical form	Liquid
Odour	Irritating/pungent odour
Odour threshold	1 ppm
	1.2 mg/m <sup>3</sup>
Colour	Colourless

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Translucency	Clear
Particle size	Not applicable (liquid)
Explosion limits	7 - 73 vol % ; Pure substance
Flammability	Non-flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Vapour pressure	14 hPa ; 20 °C ; 55 % ; Aqueous solution 82 hPa ; 40 °C ; 55 % ; Aqueous solution
Solubility	Water ; soluble
	Ethanol ; soluble
	Methanol ; soluble
	Ether ; miscible
	Acetone ; miscible
Relative density	No data available
Decomposition temperature	No data available
Auto-ignition temperature	395 °C ; Aqueous solution ; 1013 hPa ; DIN 51794
Flash point	> 60 °C
	85 °C ; 37 % ; Closed cup
	84 °C ; 1013 hPa ; 55 % ; Closed cup
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

## 9.2. Other information

Surface tension	No data available
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Temperature above flashpoint: higher fire/explosion hazard. Acid reaction.

### 10.2. Chemical stability

No data available.

### 10.3. Possibility of hazardous reactions

Reacts violently with many compounds e.g.: with (strong) oxidizers: (increased) risk of fire/explosion. Reacts with (some) acids: release of (highly) toxic compounds. Unstabilised product polymerizes.

### 10.4. Conditions to avoid

#### Precautionary measures

Use earthed equipment. Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosionproof appliances. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks.

### 10.5. Incompatible materials

Combustible materials, oxidizing agents, (strong) acids, (strong) bases.

### 10.6. Hazardous decomposition products

Reacts with (some) bases: release of carbon dioxide with pressure rise and possible bursting of container. Upon combustion: CO and CO<sub>2</sub> are formed.

## SECTION 11: Toxicological information

### formaldehyde conc > 25% aqueous solution

May cause cancer.  
Suspected of causing genetic defects.  
Toxic if inhaled.  
Toxic in contact with skin.  
Toxic if swallowed.  
May cause an allergic skin reaction.  
Causes severe skin burns and eye damage.  
Causes serious eye damage.  
May cause respiratory irritation.

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## formaldehyde

May cause cancer.  
Suspected of causing genetic defects.  
Toxic if inhaled.  
Toxic in contact with skin.  
Toxic if swallowed.  
May cause an allergic skin reaction.  
Causes severe skin burns and eye damage.  
Causes serious eye damage.

## SECTION 12: Ecological information

### 12.1. Toxicity

Not classified as dangerous to the aquatic environment according to the criteria of Regulation (EC) No 1272/2008  
Judgement is based on the relevant ingredients  
Toxic to fishes  
Toxic to crustacea  
Toxic to algae  
pH shift  
Toxic to flora  
Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

### 12.2. Persistence and degradability

Readily biodegradable in water

### 12.3. Bioaccumulative potential

Low potential for bioaccumulation (BCF < 500)

### 12.4. Mobility in soil

Contains component(s) with potential for mobility in the soil

### 12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006

### 12.6. Other adverse effects

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)  
Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

## SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 13.1. Waste treatment methods

#### 13.1.1 Provisions relating to waste

##### European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

16 03 05\* (off-specification batches and unused products: organic wastes containing hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

#### 13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove to an authorized plant for the destruction, neutralization and elimination of hazardous waste.

#### 13.1.3 Packaging/Container

##### European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10\* (packaging containing residues of or contaminated by dangerous substances).

## SECTION 14: Transport information

### Road (ADR)

#### 14.1. UN number

UN number	2209
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#### 14.2. UN proper shipping name

Proper shipping name	Formaldehyde solution
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#### 14.3. Transport hazard class(es)

Hazard identification number	80
Class	8
Classification code	C9

#### 14.4. Packing group

Packing group	III
Labels	8

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14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	533
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

## Rail (RID)

14.1. UN number	
UN number	2209
14.2. UN proper shipping name	
Proper shipping name	Formaldehyde solution
14.3. Transport hazard class(es)	
Hazard identification number	80
Class	8
Classification code	C9
14.4. Packing group	
Packing group	III
Labels	8
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	533
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

## Inland waterways (ADN)

14.1. UN number	
UN number	2209
14.2. UN proper shipping name	
Proper shipping name	Formaldehyde solution
14.3. Transport hazard class(es)	
Class	8
Classification code	C9
14.4. Packing group	
Packing group	III
Labels	8
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	533
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

## Sea (IMDG/IMSBC)

14.1. UN number	
UN number	2209
14.2. UN proper shipping name	
Proper shipping name	formaldehyde solution
14.3. Transport hazard class(es)	
Class	8
14.4. Packing group	
Packing group	III
Labels	8
14.5. Environmental hazards	
Marine pollutant	-
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	
Annex II of MARPOL 73/78	Not applicable, based on available data

## Air (ICAO-TI/IATA-DGR)

14.1. UN number	
UN number	2209
14.2. UN proper shipping name	
Proper shipping name	Formaldehyde solution
14.3. Transport hazard class(es)	
Class	8
14.4. Packing group	

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Packing group	III
Labels	8
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	A803
Passenger and cargo transport	
Limited quantities: maximum net quantity per packaging	1 L

## SECTION 15: Regulatory information

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

#### European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
≥ 33 %	

formaldehyde

Product name	Skin sensitisation
Formaldehyde	The substance can cause sensitisation of the skin

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· formaldehyde	Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	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 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 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 may lead to life threatening lung damage"; c) lamp oils 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. 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 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 H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'
· formaldehyde	Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively.	Without prejudice to the other parts of this Annex the following shall apply to entries 28 to 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 generic concentration limit specified in Part 3 of Annex I of 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 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:

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Infonummer: 68015

# formaldehyde conc > 25% aqueous solution

		<p>(a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC;</p> <p>(b) cosmetic products as defined by Directive 76/768/EEC;</p> <p>(c) the following fuels and oil products:          — motor fuels which are covered by Directive 98/70/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);</p> <p>(d) artists' paints covered by Regulation (EC) No 1272/2008;</p> <p>(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.</p>
formaldehyde	The substances listed in column 1 of the Table in Appendix 12	<p>1. 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 present in a concentration, measured in homogeneous material, equal to or greater than that specified for that substance in Appendix 12.</p> <p>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.</p> <p>3. 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.</p> <p>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 (**).</p> <p>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.</p> <p>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.</p> <p>7. The Commission shall review the exemption in paragraph 3(d) and, if appropriate, modify that point accordingly.</p> <p>(*) Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (OJ L 81, 31.3.2016, p. 51).</p> <p>(**) 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 Council Directives 90/385/EEC and 93/42/EEC (OJ L 117, 5.5.2017, p. 1).</p>

## National legislation Belgium

formaldehyde conc > 25% aqueous solution

No data available

formaldehyde

Additional classification	Aldéhyde formique; C; La mention "C" signifie que l'agent en question relève du champ d'application de l'arrêté royal du 2 décembre 1993 concernant la protection des travailleurs contre les risques liés à l'exposition à des agents cancérigènes et mutagènes et reprotoxiques au travail.
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## National legislation The Netherlands

formaldehyde conc > 25% aqueous solution

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 06
Waterbezwaarlijkheid	Z (2); Algemene Beoordelingsmethodiek (ABM)

formaldehyde

SZW - Lijst van kankerverwekkende stoffen	Formaldehyde; Listed in SZW-list of carcinogenic substances
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## National legislation France

formaldehyde conc > 25% aqueous solution

No data available

formaldehyde

Catégorie cancérigène	Aldéhyde formique; C2
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## National legislation Germany

formaldehyde conc > 25% aqueous solution

WGK	2; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)
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## formaldehyde

TA-Luft	5.2.5/l
TRGS900 - Risiko der Fruchtschädigung	Formaldehyd; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
Sensibilisierende Stoffe	Formaldehyd; Sh; Hautsensibilisierende Stoffe
TRGS900 - Kanzerogener Stoff	Formaldehyd

### National legislation United Kingdom

#### formaldehyde conc > 25% aqueous solution

No data available

### Other relevant data

#### formaldehyde conc > 25% aqueous solution

No data available

## formaldehyde

TLV - Skin Sensitisation	Formaldehyde; SEN; Sensitization
TLV - Respiratory Sensitisation	Formaldehyde; SEN; Sensitization
TLV - Carcinogen	Formaldehyde; A1
IARC - classification	1; Formaldehyde

## 15.2. Chemical safety assessment

## SECTION 16: Other information

### Full text of any H-statements referred to under heading 3:

- H301 Toxic if swallowed.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- H350 May cause cancer.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
EC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

### Specific concentration limits CLP

formaldehyde ... %	C ≥ 25 %	Skin Corr. 1B; H314	CLP Annex VI (ATP 6)
	5 % ≤ C < 25 %	Skin Irrit. 2; H315	CLP Annex VI (ATP 6)
	5 % ≤ C < 25 %	Eye Irrit. 2; H319	CLP Annex VI (ATP 6)
	C ≥ 5 %	STOT SE 3; H335	CLP Annex VI (ATP 6)
	C ≥ 0,2 %	Skin Sens. 1; H317	CLP Annex VI (ATP 6)

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

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