Formaldehyde solution

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 8/12/2016 Version: 0.0

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

1.1. Product identifier

Product form : Mixtures

Product name : Formaldehyde solution

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

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ISOLAB GmbH
Bahnhofstrasse 10, D-97877
Wertheim - Germany
T +49 93 42 912 355 - F +49 93 42 912 357
prodsafe@isolab.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Germany	Giftnotruf der Charité CBF, Haus VIII (Wirtschaftgebäude), UG	Hindenburgdamm 30 12203 Berlin	+49 30 19240	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225
Skin Corr. 1B H314
Skin Sens. 1 H317
Carc. 2 H351
STOT SE 2 H371
STOT SE 3 H335

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Suspected of causing cancer. May cause damage to organs. May cause respiratory irritation. Causes severe skin burns and eye damage. May cause an allergic skin reaction.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS02 GHS05 GHS07 GHS08

Signal word (CLP) : Danger

Hazardous ingredients : formaldehyde … %; methanol

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer
H371 - May cause damage to organs

Precautionary statements (CLP) : P201 - Obtain special instructions before use
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
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical/ventilating/lighting equipment

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
formaldehyde … %	(CAS No) 50-00-0 (EC no) 200-001-8 (EC index no) 605-001-00-5 (REACH-no) 01-2119488953-20	37 - 50	Carc. 2, H351 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314 Skin Sens. 1, H317
methanol	(CAS No) 67-56-1 (EC no) 200-659-6 (EC index no) 603-001-00-X (REACH-no) 01-2119433307-44	2 - 7	Flam. Liq. 2, H225 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 STOT SE 1, H370
formic acid … %	(CAS No) 64-18-6 (EC no) 200-579-1 (EC index no) 607-001-00-0 (REACH-no) 01-2119491174-37	≤ 0.1	Skin Corr. 1A, H314

Specific concentration limits:

Name	Product identifier	Specific concentration limits
formaldehyde … %	(CAS No) 50-00-0 (EC no) 200-001-8 (EC index no) 605-001-00-5 (REACH-no) 01-2119488953-20	(C >= 0.2) Skin Sens. 1, H317 (C >= 5) STOT SE 3, H335 (5 =<C < 25) Eye Irrit. 2, H319 (5 =<C < 25) Skin Irrit. 2, H315 (C >= 25) Skin Corr. 1B, H314
methanol	(CAS No) 67-56-1 (EC no) 200-659-6 (EC index no) 603-001-00-X (REACH-no) 01-2119433307-44	(3 =<C < 10) STOT SE 2, H371 (C >= 10) STOT SE 1, H370
formic acid … %	(CAS No) 64-18-6 (EC no) 200-579-1 (EC index no) 607-001-00-0 (REACH-no) 01-2119491174-37	(2 =<C < 10) Skin Irrit. 2, H315 (2 =<C < 10) Eye Irrit. 2, H319 (10 =<C < 90) Skin Corr. 1B, H314 (C >= 90) Skin Corr. 1A, H314

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Burns. May cause an allergic skin reaction.

Symptoms/injuries after eye contact : Serious damage to eyes.

Symptoms/injuries after ingestion : Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

formaldehyde … % (50-00-0)		
EU	Local name	Formaldehyde
EU	IOELV TWA (ppm)	0.2 ppm
EU	IOELV STEL (ppm)	0.4 ppm
EU	Notes	skin sensitiser. SCOEL Recommendations (2008/Ongoing)

formaldehyde … % (50-00-0)		
Austria	Local name	Formaldehyd
Austria	MAK (mg/m³)	0.6 mg/m³
Austria	MAK (ppm)	0.5 ppm
Austria	MAK Short time value (mg/m³)	0.6 mg/m³
Austria	MAK Short time value (ppm)	0.5 ppm
Austria	Remark (AT)	H,Sh
Belgium	Local name	Aldéhyde formique # Formaldehyde
Belgium	Short time value (mg/m³)	0.38 mg/m³ (Aldéhyde formique; Belgium; Short time value)
Belgium	Short time value (ppm)	0.3 ppm (Aldéhyde formique; Belgium; Short time value)
Belgium	Remark (BE)	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.# De vermelding M duidt aan dat bij de blootstelling boven de grenswaarde irritatie optreedt of er gevaar bestaat voor acute vergiftiging. Het werkprocédé moet zo zijn ontworpen dat de blootstelling de grenswaarde nooit overschrijdt. Bij een controle geldt dat de bemonsterde periodezo kort mogelijk moet zijn om een betrouwbare meting te kunnen verrichten. het meetresultaat wordt dan gerelateerd aan de beschouwde periode.
Bulgaria	Local name	Формалдехид
Bulgaria	OEL TWA (mg/m³)	1 mg/m³
Bulgaria	OEL STEL (mg/m³)	2 mg/m³
Croatia	Local name	Formaldehid
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	2.5 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	2 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m³)	2.5 mg/m³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	2 ppm
Croatia	Naznake (HR)	T (otrovno); Karc. kat. 3 (tvari koje izazivaju zabrinutost zbog mogućeg karcinogenog djelovanja na ljude)
Czech Republic	Local name	Formaldehyd
Czech Republic	Expoziční limity (PEL) (mg/m³)	0.5 mg/m³
Czech Republic	Expoziční limity (PEL) (ppm)	0.41 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m³)	1 mg/m³
Czech Republic	Expoziční limity (NPK-P) (ppm)	0.81 ppm
Czech Republic	Remark (CZ)	D, S
Denmark	Local name	Formaldehyd (Formalin)
Denmark	Grænseværdie (langvarig) (mg/m³)	0.4 mg/m³ 0.4 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	0.3 ppm 0.3 ppm
Denmark	Anmærkninger (DK)	L (markerer, at grænseværdien er en loftværdi, som ikke på noget tidspunkt må overskrides); K (betyder, at stoffet anses for at kunne være kræftfremkaldende)
Finland	Local name	Formaldehydi
Finland	HTP-arvo (8h) (mg/m³)	0.37 mg/m³

formaldehyde … % (50-00-0)		
Finland	HTP-arvo (8h) (ppm)	0.3 ppm
Finland	HTP-arvo (15 min)	1.2 mg/m³
Finland	HTP-arvo (15 min) (ppm)	1 ppm
Finland	Huomautus (FI)	kattoarvo
France	Local name	Aldéhyde formique
France	VME (ppm)	0.5 ppm (Aldéhyde formique; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
France	KZGW (ppm)	1 ppm (Aldéhyde formique; France; Short time value; VL: Valeur non réglementaire indicative)
France	Note (FR)	Valeurs recommandées/admises; substance classée cancérogène de catégorie 2
Germany	Local name	Formaldehyd
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	0.37 mg/m³
Germany	TRGS 900 Occupational exposure limit value (ppm)	0.3 ppm
Germany	Remark (TRGS 900)	AGS,Sh,Y,X
Greece	OEL TWA (mg/m³)	2.5 mg/m³
Greece	OEL TWA (ppm)	2 ppm
Greece	OEL STEL (mg/m³)	2.5 mg/m³
Greece	OEL STEL (ppm)	2 ppm
Hungary	Local name	FORMALDEHID
Hungary	AK-érték	0.6 mg/m³
Hungary	CK-érték	0.6 mg/m³
Hungary	Megjegyzések (HU)	b, m, sz; VI.
Ireland	Local name	Formaldehyde
Ireland	OEL (8 hours ref) (mg/m³)	2.5 mg/m³
Ireland	OEL (8 hours ref) (ppm)	2 ppm
Ireland	OEL (15 min ref) (mg/m3)	2.5 mg/m³
Ireland	OEL (15 min ref) (ppm)	2 ppm
Latvia	Local name	Formaldehīds (metanāls)
Latvia	OEL TWA (mg/m³)	0.5 mg/m³
Lithuania	Local name	Formaldehidas
Lithuania	IPRV (mg/m³)	0.6 mg/m³
Lithuania	IPRV (ppm)	0.5 ppm
Lithuania	NRV (mg/m³)	1.2 mg/m³
Lithuania	NRV (ppm)	1 ppm
Lithuania	Remark (LT)	Ū J K
Netherlands	Local name	Formaldehyde
Netherlands	Grenswaarde TGG 8H (mg/m³)	0.15 mg/m³ (Formaldehyde; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	0.12 ppm (Formaldehyde; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (mg/m³)	0.5 mg/m³ (Formaldehyde; Netherlands; Short time value; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (ppm)	0.4 ppm (Formaldehyde; Netherlands; Short time value; Public occupational exposure limit value)
Poland	Local name	Formaldehyd
Poland	NDS (mg/m³)	0.5 mg/m³
Poland	NDSCh (mg/m³)	1 mg/m³
Portugal	Local name	Formaldeído

formaldehyde … % (50-00-0)		
Portugal	OEL - Ceilings (ppm)	0.3 ppm
Romania	Local name	Formaldehida
Romania	OEL TWA (mg/m³)	1.2 mg/m³
Romania	OEL TWA (ppm)	1 ppm
Romania	OEL STEL (mg/m³)	3 mg/m³
Romania	OEL STEL (ppm)	2 ppm
Slovenia	Local name	formaldehid
Slovenia	OEL TWA (mg/m³)	0.62 mg/m³
Slovenia	OEL TWA (ppm)	0.5 ppm
Slovenia	OEL STEL (mg/m³)	0.62 mg/m³
Slovenia	OEL STEL (ppm)	0.5 ppm
Spain	Local name	Formaldehído
Spain	VLA-EC (mg/m³)	0.37 mg/m³
Spain	VLA-EC (ppm)	0.3 ppm
Spain	Notes	Sen (Sensibilizante. Véase Apartado 6), s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para una información detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas Base de datos de productos fitosanitarios http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf).
Sweden	Local name	Formaldehyd
Sweden	nivågränsvärde (NVG) (mg/m³)	0.37 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	0.3 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	0.74 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	0.6 ppm
Sweden	Anmärkning (SE)	C (Ämnet är cancerframkallande Risk för cancer finns även vid annan exponering än via inandning. För vissa cancerframkallande ämnen som inte har gränsvärden gäller förbud eller tillståndskrav enligt föreskrifterna om kemiska arbetsmiljörisker); H (Ämnet kan lätt upptas genom huden Det föreskrivna gränsvärdet bedöms ge tillräckligt skydd endast under förutsättning att huden är skyddad mot exponering för ämnet ifråga); M (Medicinska kontroller kan krävas för hantering av ämnet. Se vidare föreskrifterna om medicinska kontroller i arbetslivet. För visa ämnen ska arbetsgivaren erbjuda läkarundersökning och för andra ämnen gäller krav på periodisk läkarundersökning och tjänstbarhetsbedömning. Se föreskrifterna om kemiska arbetsmiljörisker); S (Ämnet är sensibiliserande Sensibiliserande ämnen kan ge allergi eller annan överkänslighet. Överkänslighetsbesvären drabbar främst huden eller andningsorganen. Överkänslighet innebär att man reagerar vid kontakt med ämnen som normalt inte ger besvär. Allergi är en undergrupp av överkänslighet som orsakas av reaktioner i kroppens immunsystem. Särskilt låga gränsvärden har fastställts för ämnen med mer uttalat luftvägssensibiliserande egenskaper. Några ämnen med starkt sensibiliserande egenskaper får endast hanteras efter tillstånd från Arbetsmiljöverket, se föreskrifterna om kemiska arbetsmiljörisker. Dessa ämnen har inga gränsvärden men i vissa fall riktvärden)
United Kingdom	Local name	Formaldehyde

formaldehyde … % (50-00-0)		
United Kingdom	WEL TWA (mg/m³)	2.5 mg/m³ Formaldehyde; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	2 ppm Formaldehyde; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m³)	2.5 mg/m³ Formaldehyde; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	2 ppm Formaldehyde; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
Russian Federation	Local name	Формальдегид+
Russian Federation	OEL Ceiling (mg/m³)	0.5 mg/m³
Russian Federation	Remark (RU)	2 класс опасности - высокоопасное; п (пары и/или газы); О (вещества с остронаправленным механизмом действия, требующие автоматического контроля за их содержанием в воздухе); А (вещества, способные вызывать аллергические заболевания в производственных условиях); + (соединения, при работе с которыми требуется специальная защита кожи и глаз; символ проставлен вслед за наименованием вещества)
Norway	Local name	Formaldehyd
Norway	Grenseverdier (AN) (mg/m³)	0.6 mg/m³ 1.2 mg/m³
Norway	Grenseverdier (AN) (ppm)	0.5 ppm 1 ppm
Norway	Merknader (NO)	A (Kjemikalier som skal betraktes som at de fremkaller allergi eller annen overfølsomhet i øynene eller luftveier, eller som skal betraktes som at de fremkaller allergi ved hudkontakt); K (Kjemikalier som skal betraktes som kreftfremkallende)
Switzerland	Local name	Formaldehyd
Switzerland	VME (mg/m³)	0.37 mg/m³
Switzerland	VME (ppm)	0.3 ppm
Switzerland	KZGW (mg/m³)	0.74 mg/m³
Switzerland	KZGW (ppm)	0.6 ppm
Switzerland	Remark (CH)	S $C1_B^{\#*}$ SS_C - Auge - DFG, HSE, NIOSH, OSHA, *Kein erhöhtes Krebsrisiko bei Einhalten des MAK-Wertes [S. 1.3.2.3]
Australia	Local name	Formaldehyde
Australia	TWA (mg/m³)	1.2 mg/m³
Australia	TWA (ppm)	1 ppm
Australia	Remark (AU)	Carcinogenicity Category 2 – Suspected human carcinogen. The classification of a chemical into this category is on the basis of evidence from human and animal studies, where the evidence is not sufficiently convincing to place the chemical into Category 1 or from limited evidence of carcinogenicity in human or animal studies; Sen - Respiratory and/or Skin Sensitiser.
USA - ACGIH	Local name	Formaldehyde
USA - ACGIH	ACGIH TWA (ppm)	0.1 ppm
USA - ACGIH	ACGIH STEL (ppm)	0.3 ppm
USA - ACGIH	ACGIH Ceiling (ppm)	0.3 ppm (Formaldehyde; USA; Momentary value; TLV - Adopted Value)
USA - ACGIH	Remark (ACGIH)	URT & eye irr; URT cancer; DSEN; RSEN; A1 (Confirmed Human Carcinogen: The agent is carcinogenic to humans based on the weight of evidence from epidemiologic studies)

methanol (67-56-1)		
EU	Local name	Methanol

methanol (67-56-1)		
EU	IOELV TWA (mg/m³)	260 mg/m³ (Methanol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	200 ppm (Methanol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	Notes	skin
Austria	Local name	Methanol
Austria	MAK (mg/m³)	260 mg/m³
Austria	MAK (ppm)	200 ppm
Austria	MAK Short time value (mg/m³)	1040 mg/m³
Austria	MAK Short time value (ppm)	800 ppm
Austria	Remark (AT)	H
Belgium	Local name	Alcool méthylique # Methanol
Belgium	Limit value (mg/m³)	266 mg/m³ (Alcool méthylique; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	200 ppm (Alcool méthylique; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m³)	333 mg/m³ (Alcool méthylique; Belgium; Short time value)
Belgium	Short time value (ppm)	250 ppm (Alcool méthylique; Belgium; Short time value)
Belgium	Remark (BE)	D: La mention D signifie que la résorption de l'agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l'exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l'agent dans l'air. # De vermelding D betekent dat de opname van het agens via de huid, de slijmvliezen of de ogen een belangrijk deel van de totale blootstelling vormt. Deze opname kan het gevolg zijn van zowel direct contact als zijn aanwezigheid in de lucht.
Bulgaria	Local name	Метилов алкохол
Bulgaria	OEL TWA (mg/m³)	260 mg/m³
Bulgaria	OEL TWA (ppm)	200 ppm
Bulgaria	Notes	Кожа (възможна е значителна резорбция чрез кожата); • (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност)
Croatia	Local name	Metanol
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	260 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	200 ppm
Croatia	Naznake (HR)	K (Skin): (naznaka da tvar može štetno djelovati kroz kožu); EU** (naznaka da se radi o tvarima za koje su utvrđene indikativne granične vrijednosti izloženosti prema Direktivi 2006/15/ EC (druga lista)); F (lako zapaljivo); T (otrovno)
Czech Republic	Local name	Methanol
Czech Republic	Expoziční limity (PEL) (mg/m³)	250 mg/m³
Czech Republic	Expoziční limity (PEL) (ppm)	189 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m³)	1000 mg/m³
Czech Republic	Expoziční limity (NPK-P) (ppm)	750 ppm
Czech Republic	Remark (CZ)	D
Denmark	Local name	Methanol (Methylalkohol)
Denmark	Grænseværdie (langvarig) (mg/m³)	260 mg/m³ 260 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	200 ppm 200 ppm

methanol (67-56-1)		
Denmark	Anmærkninger (DK)	E (betyder, at stoffet har en EF-grænseværdi); H (betyder, at stoffet kan optages gennem huden)
Estonia	Local name	Metanool (metüülalkohol)
Estonia	OEL TWA (mg/m³)	250 mg/m³
Estonia	OEL TWA (ppm)	200 ppm
Estonia	OEL STEL (mg/m³)	350 mg/m³
Finland	Local name	Metanoli
Finland	HTP-arvo (8h) (mg/m³)	270 mg/m³
Finland	HTP-arvo (8h) (ppm)	200 ppm
Finland	HTP-arvo (15 min)	330 mg/m³
Finland	HTP-arvo (15 min) (ppm)	250 ppm
Finland	Huomautus (FI)	iho
France	Local name	Alcool méthylique (méthanol)
France	VME (mg/m³)	260 mg/m³ (Methanol; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	200 ppm (Methanol; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	KZGW (mg/m³)	1300 mg/m³ (Methanol; France; Short time value; VL: Valeur non réglementaire indicative)
France	KZGW (ppm)	1000 ppm (Methanol; France; Short time value; VL: Valeur non réglementaire indicative)
France	Note (FR)	VME règlementaires contraignantes; la VLE n'est pas réglementaire et provient d'une circulaire du ministère chargé du travail; risque de pénétration percutanée
Germany	Local name	Methanol
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	270 mg/m³
Germany	TRGS 900 Occupational exposure limit value (ppm)	200 ppm
Germany	Remark (TRGS 900)	DFG,EU,H,Y
Greece	OEL TWA (mg/m³)	260 mg/m³
Greece	OEL TWA (ppm)	200 ppm
Greece	OEL STEL (mg/m³)	325 mg/m³
Greece	OEL STEL (ppm)	250 ppm
Hungary	Local name	METIL-ALKOHOL
Hungary	AK-érték	260 mg/m³
Hungary	Megjegyzések (HU)	b, i; II.1.
Ireland	Local name	Methanol
Ireland	OEL (8 hours ref) (mg/m³)	260 mg/m³
Ireland	OEL (8 hours ref) (ppm)	200 ppm
Ireland	Notes (IE)	Sk, IOELV
Italy	Local name	Metanolo
Italy	OEL TWA (mg/m³)	260 mg/m³
Italy	OEL TWA (ppm)	200 ppm
Latvia	Local name	Metanols (metilspirts, karbinols)
Latvia	OEL TWA (mg/m³)	260 mg/m³
Latvia	OEL TWA (ppm)	200 ppm
Lithuania	Local name	Metanolis (metilo alkoholis)
Lithuania	IPRV (mg/m³)	260 mg/m³
Lithuania	IPRV (ppm)	200 ppm
Lithuania	Remark (LT)	O

methanol (67-56-1)		
Luxembourg	Local name	Méthanol
Luxembourg	OEL TWA (mg/m³)	260 mg/m³
Luxembourg	OEL TWA (ppm)	200 ppm
Malta	Local name	Methanol
Malta	OEL TWA (mg/m³)	260 mg/m³
Malta	OEL TWA (ppm)	200 ppm
Netherlands	Local name	Methanol
Netherlands	Grenswaarde TGG 8H (mg/m³)	133 mg/m³ (Methanol; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	100 ppm (Methanol; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Remark (MAC)	H (Huidopname) Stoffen die relatief gemakkelijk door de huid kunnen worden opgenomen, hetgeen een substantiële bijdrage kan betekenen aan de totale inwendige blootstelling, hebben in de lijst een Haanduiding. Bij deze stoffen moeten naast maatregelen tegen inademing ook adequate maatregelen ter voorkoming van huidcontact worden genomen.
Poland	Local name	Metanol (metylowy alkohol)
Poland	NDS (mg/m³)	100 mg/m³
Poland	NDSCh (mg/m³)	300 mg/m³
Portugal	Local name	Metanol (Álcool metílico)
Portugal	OEL TWA (ppm)	200 ppm
Portugal	OEL STEL (ppm)	250 ppm
Romania	Local name	Alcool metilic
Romania	OEL TWA (mg/m³)	260 mg/m³
Romania	OEL TWA (ppm)	200 ppm
Romania	OEL STEL (ppm)	5 ppm
Slovenia	Local name	metanol (metilalkohol)
Slovenia	OEL TWA (mg/m³)	260 mg/m³
Slovenia	OEL TWA (ppm)	200 ppm
Spain	Local name	Metanol (Alcohol metílico)
Spain	VLA-ED (mg/m³)	266 mg/m³
Spain	VLA-ED (ppm)	200 ppm
Spain	Notes	Vía dérmica (Indica que, en las exposiciones a esta sustancia, la aportación por la vía cutánea puede resultar significativa para el contenido corporal total si no se adoptan medidas para prevenir la absorción. En estas situaciones, es aconsejable la utilización del control biológico para poder cuantificar la cantidad global absorbida del contaminante. Para más información véase el Apartado 5 de este documento), VLB® (Agente químico que tiene Valor Límite Biológico específico en este documento), VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C. Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país).
Sweden	Local name	Metanol
Sweden	nivågränsvärde (NVG) (mg/m³)	250 mg/m³

methanol (67-56-1)		
Sweden	nivågränsvärde (NVG) (ppm)	200 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	350 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	250 ppm
Sweden	Anmärkning (SE)	H (Ämnet kan lätt upptas genom huden Det föreskrivna gränsvärdet bedöms ge tillräckligt skydd endast under förutsättning att huden är skyddad mot exponering för ämnet ifråga); V (Vägledande korttidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas)
United Kingdom	Local name	Methanol
United Kingdom	WEL TWA (mg/m³)	266 mg/m³ Methanol; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	200 ppm Methanol; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m³)	333 mg/m³ Methanol; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	250 ppm Methanol; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Russian Federation	Local name	Метанол+
Russian Federation	OEL Ceiling (mg/m³)	15 mg/m³
Russian Federation	OEL TWA (mg/m³)	5 mg/m³
Russian Federation	Remark (RU)	3 класс опасности - опасное; п (пары и/или газы); + (соединения, при работе с которыми требуется специальная защита кожи и глаз; символ проставлен вслед за наименованием вещества)
Norway	Local name	Metanol
Norway	Grenseverdier (AN) (mg/m³)	130 mg/m³
Norway	Grenseverdier (AN) (ppm)	100 ppm
Norway	Merknader (NO)	H (Kjemikalier som kan tas opp gjennom huden); E (EU har en veiledende grenseverdi for stoffet)
Switzerland	Local name	Methanol
Switzerland	VME (mg/m³)	260 mg/m³ 260 mg/m³
Switzerland	VME (ppm)	200 ppm 200 ppm
Switzerland	KZGW (mg/m³)	1040 mg/m³ 1040 mg/m³
Switzerland	KZGW (ppm)	800 ppm 800 ppm
Switzerland	Remark (CH)	H B SS_C - ZNS, Sehen - INRS, NIOSH
Turkey	Local name	Metanol
Turkey	OEL TWA (mg/m³)	260 mg/m³
Turkey	OEL TWA (ppm)	200 ppm
Turkey	Comments	Deri
Australia	Local name	Methyl alcohol
Australia	TWA (mg/m³)	262 mg/m³ Synonym (Methanol)
Australia	TWA (ppm)	200 ppm Synonym (Methanol)
Australia	STEL (mg/m³)	328 mg/m³ Synonym (Methanol)
Australia	STEL (ppm)	250 ppm Synonym (Methanol)
Australia	Remark (AU)	Sk - Absorption through the skin may be a significant source of exposure.
USA - ACGIH	Local name	Methanol

methanol (67-56-1)		
USA - ACGIH	ACGIH TWA (ppm)	200 ppm (Methanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA - ACGIH	ACGIH STEL (ppm)	250 ppm (Methanol; USA; Short time value; TLV - Adopted Value)
USA - ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea
USA - OSHA	Local name	Methyl alcohol
USA - OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³
USA - OSHA	OSHA PEL (TWA) (ppm)	200 ppm

formic acid … % (64-18-6)		
EU	Local name	Formic acid
EU	IOELV TWA (mg/m³)	9 mg/m³ (Formic acid; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	5 ppm (Formic acid; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Austria	Local name	Ameisensäure
Austria	MAK (mg/m³)	9 mg/m³
Austria	MAK (ppm)	5 ppm
Austria	MAK Short time value (mg/m³)	9 mg/m³
Austria	MAK Short time value (ppm)	5 ppm
Belgium	Local name	Acide formique # Mierenzuur
Belgium	Limit value (mg/m³)	9.5 mg/m³ (Acide formique; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	5 ppm (Acide formique; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m³)	19 mg/m³ (Acide formique; Belgium; Short time value)
Belgium	Short time value (ppm)	10 ppm (Acide formique; Belgium; Short time value)
Bulgaria	Local name	Мравчена киселина
Bulgaria	OEL TWA (mg/m³)	9 mg/m³
Bulgaria	OEL TWA (ppm)	5 ppm
Bulgaria	Notes	• (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност)
Croatia	Local name	Mravlja kiselina, > 90%
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	9 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	5 ppm
Croatia	Naznake (HR)	EU** (naznaka da se radi o tvarima za koje su utvrđene indikativne granične vrijednosti izloženosti prema Direktivi 2006/15/ EC (druga lista)); C (nagrizajuće)
Czech Republic	Local name	Kyselina mraven í
Czech Republic	Expoziční limity (PEL) (mg/m³)	9 mg/m³
Czech Republic	Expoziční limity (PEL) (ppm)	4.78 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m³)	18 mg/m³
Czech Republic	Expoziční limity (NPK-P) (ppm)	9.56 ppm
Denmark	Local name	Myresyre (Methansyre)
Denmark	Grænseværdie (langvarig) (mg/m³)	9 mg/m³ 9 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	5 ppm 5 ppm
Denmark	Anmærkninger (DK)	E (betyder, at stoffet har en EF-grænseværdi)
Estonia	Local name	Metaanhape (sipelghape)
Estonia	OEL TWA (mg/m³)	9 mg/m³
Estonia	OEL TWA (ppm)	5 ppm

formic acid … % (64-18-6)		
Finland	Local name	Muurahaishappo
Finland	HTP-arvo (8h) (mg/m³)	5 mg/m³
Finland	HTP-arvo (8h) (ppm)	3 ppm
Finland	HTP-arvo (15 min)	19 mg/m³
Finland	HTP-arvo (15 min) (ppm)	10 ppm
France	Local name	Acide formique
France	VME (mg/m³)	9 mg/m³ (Acide formique; France; Time-weighted average exposure limit 8 h; VRI: Valeur réglementaire indicative)
France	VME (ppm)	5 ppm (Acide formique; France; Time-weighted average exposure limit 8 h; VRI: Valeur réglementaire indicative)
France	Note (FR)	Valeurs règlementaires indicatives
Germany	Local name	Ameisensäure
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	9.5 mg/m³
Germany	TRGS 900 Occupational exposure limit value (ppm)	5 ppm
Germany	Remark (TRGS 900)	DFG,EU,Y
Greece	OEL TWA (mg/m³)	9 mg/m³
Greece	OEL TWA (ppm)	5 ppm
Hungary	Local name	HANGYASAV
Hungary	AK-érték	9 mg/m³
Hungary	Megjegyzések (HU)	m; I.
Ireland	Local name	Formic acid
Ireland	OEL (8 hours ref) (mg/m³)	9 mg/m³
Ireland	OEL (8 hours ref) (ppm)	5 ppm
Ireland	Notes (IE)	IOELV
Italy	Local name	Acido formico
Italy	OEL TWA (mg/m³)	9 mg/m³
Italy	OEL TWA (ppm)	5 ppm
Latvia	Local name	Skudrskābe (metānskābe)
Latvia	OEL TWA (mg/m³)	9 mg/m³
Latvia	OEL TWA (ppm)	5 ppm
Lithuania	Local name	Skruzdžių rūgštis
Lithuania	IPRV (mg/m³)	9 mg/m³
Lithuania	IPRV (ppm)	5 ppm
Luxembourg	Local name	Acide formique
Luxembourg	OEL TWA (mg/m³)	9 mg/m³
Luxembourg	OEL TWA (ppm)	5 ppm
Malta	Local name	Formic acid
Malta	OEL TWA (mg/m³)	9 mg/m³
Malta	OEL TWA (ppm)	5 ppm
Netherlands	Local name	Mierenzuur
Netherlands	Grenswaarde TGG 15MIN (mg/m³)	5 mg/m³ (Mierenzuur; Netherlands; Short time value; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (ppm)	2.6 ppm (Mierenzuur; Netherlands; Short time value; Public occupational exposure limit value)
Poland	Local name	Kwas mrówkowy
Poland	NDS (mg/m³)	5 mg/m³
Poland	NDSCh (mg/m³)	15 mg/m³
Portugal	Local name	Ácido fórmico

formic acid … % (64-18-6)		
Portugal	OEL TWA (ppm)	5 ppm
Portugal	OEL STEL (ppm)	10 ppm
Romania	Local name	Acid formic
Romania	OEL TWA (mg/m³)	9 mg/m³
Romania	OEL TWA (ppm)	5 ppm
Slovenia	Local name	mravljična kislina
Slovenia	OEL TWA (mg/m³)	9 mg/m³
Slovenia	OEL TWA (ppm)	5 ppm
Spain	Local name	Ácido fórmico
Spain	VLA-ED (mg/m³)	9 mg/m³
Spain	VLA-ED (ppm)	5 ppm
Spain	Notes	VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C. Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país), s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para una información detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas Base de datos de productos fitosanitarios: http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf)
Sweden	Local name	Myrsyra
Sweden	nivågränsvärde (NVG) (mg/m³)	5 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	3 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	9 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	5 ppm
Sweden	Anmärkning (SE)	V (Vägledande korttidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas)
United Kingdom	Local name	Formic acid
United Kingdom	WEL TWA (mg/m³)	9.6 mg/m³ Formic acid; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	5 ppm Formic acid; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
Russian Federation	Local name	Метановая кислота+
Russian Federation	OEL Ceiling (mg/m³)	1 mg/m³
Russian Federation	Remark (RU)	2 класс опасности - высокоопасное; п (пары и/или газы); + (соединения, при работе с которыми требуется специальная защита кожи и глаз; символ проставлен вслед за наименованием вещества)
Norway	Local name	Maursyre
Norway	Grenseverdier (AN) (mg/m³)	9 mg/m³
Norway	Grenseverdier (AN) (ppm)	5 ppm
Norway	Merknader (NO)	E (EU har en veiledende grenseverdi for stoffet)
Switzerland	Local name	Ameisensäure
Switzerland	VME (mg/m³)	9.5 mg/m³
Switzerland	VME (ppm)	5 ppm

formic acid … % (64-18-6)		
Switzerland	KZGW (mg/m³)	19 mg/m³
Switzerland	KZGW (ppm)	10 ppm
Switzerland	Remark (CH)	SS_C - Haut & Auge, $OAW^{KT\ AN}$ - NIOSH, OSHA
Turkey	Local name	Formik asit
Turkey	OEL TWA (mg/m³)	9 mg/m³
Turkey	OEL TWA (ppm)	5 ppm
Australia	Local name	Formic acid
Australia	TWA (mg/m³)	9.4 mg/m³
Australia	TWA (ppm)	5 ppm
Australia	STEL (mg/m³)	19 mg/m³
Australia	STEL (ppm)	10 ppm
USA - ACGIH	Local name	Formic acid
USA - ACGIH	ACGIH TWA (ppm)	5 ppm (Formic acid; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA - ACGIH	ACGIH STEL (ppm)	10 ppm (Formic acid; USA; Short time value; TLV - Adopted Value)
USA - ACGIH	Remark (ACGIH)	URT, eye, & skin irr
USA - OSHA	Local name	Formic acid
USA - OSHA	OSHA PEL (TWA) (mg/m³)	9 mg/m³
USA - OSHA	OSHA PEL (TWA) (ppm)	5 ppm

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Colourless liquid.
Colour	:	Colourless.
Odour	:	characteristic.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	Not applicable
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available

Flammability (solid, gas)	:	Not applicable
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

formaldehyde … % (50-00-0)	
LD50 oral rat	100 mg/kg (Aqueous solution; Rat; OECD 401: Acute Oral Toxicity; Weight of evidence; 640 mg/kg bodyweight; Rat)
LD50 oral	100 mg/kg bodyweight
LD50 dermal rabbit	270 mg/kg (Rabbit)
LD50 dermal	270 mg/kg bodyweight
LC50 inhalation rat (mg/l)	0.3 - 0.6 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	250 - 479 ppm/4h (Rat)
LC50 inhalation rat (Dust/Mist - mg/l/4h)	497 mg/l/4h

methanol (67-56-1)	
LD50 oral rat	> 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence)
LD50 oral	5628 mg/kg bodyweight
LD50 dermal rabbit	15800 mg/kg (Rabbit; Literature study)
LD50 dermal	15800 mg/kg bodyweight
LC50 inhalation rat (mg/l)	85 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	64000 ppm/4h (Rat; Literature study)
LC50 inhalation rat (Dust/Mist - mg/l/4h)	85000 mg/l/4h

formic acid … % (64-18-6)	
LD50 oral rat	730 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 oral	730 mg/kg bodyweight
LD50 dermal rat	>= 2000 mg/kg bodyweight (Rat; Read-across; OECD 402: Acute Dermal Toxicity)

formic acid … % (64-18-6)	
LC50 inhalation rat (Dust/Mist - mg/l/4h)	7400 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns and eye damage.
Serious eye damage/irritation : Serious eye damage, category 1, implicit
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.
Reproductive toxicity : Not classified
STOT-single exposure : May cause damage to organs. May cause respiratory irritation.
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

formaldehyde … % (50-00-0)	
LC50 fish 1	6.7 mg/l (LC50; 96 h; Morone saxatilis; Static system; Fresh water)
EC50 Daphnia 1	1.9 mg/l (EC10; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia pulex; Static system; Fresh water; Experimental value)
EC50 Daphnia 2	5.8 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia pulex; Static system; Fresh water; Experimental value)
EC50 other aquatic organisms 1	5.8 mg/l EC50 waterflea (48 h)
EC50 other aquatic organisms 2	3.48 mg/l IC50 algea (72 h) mg/l
Threshold limit algae 2	4.89 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Desmodesmus subspicatus; Static system; Fresh water; Experimental value)

methanol (67-56-1)	
LC50 fish 1	15400 mg/l (LC50; EPA 660/3 - 75/009; 96 h; Lepomis macrochirus; Flow-through system; Fresh water; Experimental value)
LC50 fish 2	10800 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 1	> 10000 mg/l (EC50; DIN 38412-11; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
EC50 other aquatic organisms 1	10000 mg/l EC50 waterflea (48 h)
EC50 other aquatic organisms 2	12000 mg/l IC50 algea (72 h) mg/l

formic acid … % (64-18-6)	
LC50 fish 1	130 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Danio rerio; Static system; Fresh water; Read-across)
EC50 Daphnia 1	365 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia sp.; Static system; Fresh water; Read-across)
EC50 other aquatic organisms 2	26.9 mg/l IC50 algea (72 h) mg/l
Threshold limit algae 1	1240 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Read-across)

12.2. Persistence and degradability

formaldehyde … % (50-00-0)	
Persistence and degradability	Readily biodegradable in water. Highly mobile in soil. Low potential for adsorption in soil.

methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O_2/g substance
Chemical oxygen demand (COD)	1.42 g O_2/g substance
ThOD	1.5 g O_2/g substance
BOD (% of ThOD)	0.8 (Literature study)

formic acid … % (64-18-6)	
Persistence and degradability	Readily biodegradable in water. Highly mobile in soil.

12.3. Bioaccumulative potential

formaldehyde … % (50-00-0)	
BCF other aquatic organisms 1	< 1 (BCF; 24 h; Penaeus sp.; Static system; Salt water)
Log Pow	35 (Experimental value; Equivalent or similar to OECD 107)
Bioaccumulative potential	Not bioaccumulative.

methanol (67-56-1)	
BCF fish 1	< 10 (BCF; 72 h; Leuciscus idus)
Log Pow	-0.77 (Experimental value; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

formic acid … % (64-18-6)	
Log Pow	-2.1 (Experimental value; EU Method A.8: Partition Coefficient; 23 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

formaldehyde … % (50-00-0)	
Log Koc	log Koc,1.202; Calculated value

methanol (67-56-1)	
Surface tension	0.023 N/m (20 °C)
Log Koc	Koc,PCKOCWIN v1.66; 1; Calculated value

formic acid … % (64-18-6)	
Log Koc	Koc,OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC); <17.8; Experimental value; GLP; log Koc; OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC); <1.25; Experimental value; GLP

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

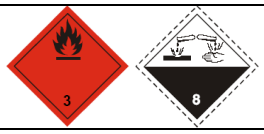
13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Additional information : Flammable vapours may accumulate in the container.

SECTION 14: Transport information

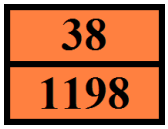
In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1198	1198	1198	1198	1198
14.2. UN proper shipping name				
FORMALDEHYDE SOLUTION, FLAMMABLE (CONTAINS ; formaldehyde … %)	FORMALDEHYDE SOLUTION, FLAMMABLE (CONTAINS ; formaldehyde … %)	Formaldehyde solution, flammable (CONTAINS ; formaldehyde … %)	FORMALDEHYDE SOLUTION, FLAMMABLE (CONTAINS ; formaldehyde … %)	FORMALDEHYDE SOLUTION, FLAMMABLE (CONTAINS ; formaldehyde … %)
Transport document description				
UN 1198 FORMALDEHYDE SOLUTION, FLAMMABLE (CONTAINS ; formaldehyde … %), 3 (8), III, (D/E)	UN 1198 FORMALDEHYDE SOLUTION, FLAMMABLE (CONTAINS ; formaldehyde … %), 3 (8), III (32°C c.c.)	UN 1198 Formaldehyde solution, flammable (CONTAINS ; formaldehyde … %), 3 (8) (8), III	UN 1198 FORMALDEHYDE SOLUTION, FLAMMABLE (CONTAINS ; formaldehyde … %), 3 (8), III	UN 1198 FORMALDEHYDE SOLUTION, FLAMMABLE (CONTAINS ; formaldehyde … %), 3 (8), III
14.3. Transport hazard class(es)				
3 (8)	3 (8)	3 (8)	3 (8)	3 (8)
				

ADR	IMDG	IATA	ADN	RID
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Classification code (ADR)	:	FC
Limited quantities (ADR)	:	5l
Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	:	P001, IBC03, R001
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T4
Portable tank and bulk container special provisions (ADR)	:	TP1
Tank code (ADR)	:	L4BN
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	3
Special provisions for carriage - Packages (ADR)	:	V12
Special provisions for carriage - Operation (ADR)	:	S2
Hazard identification number (Kemler No.)	:	38
Orange plates	:	
Tunnel restriction code (ADR)	:	D/E

- Transport by sea

Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E0
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-C
Stowage category (IMDG)	:	A
Stowage and handling (IMDG)	:	SW2
Flash point (IMDG)	:	32-60°C c.c.
Properties and observations (IMDG)	:	Colourless liquids with a pungent odour. Flashpoint: 32-60°C c.c. Miscible with water. Irritating to skin, eyes and mucous membranes.
MFAG-No	:	132

- Air transport

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y342
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	354
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	365

CAO max net quantity (IATA)	:	60L
Special provisions (IATA)	:	A180
ERG code (IATA)	:	3Ci

- Inland waterway transport

Classification code (ADN)	:	FC
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E1
Carriage permitted (ADN)	:	T
Equipment required (ADN)	:	PP, EP, EX, A
Ventilation (ADN)	:	VE01
Number of blue cones/lights (ADN)	:	0

- Rail transport

Classification code (RID)	:	FC
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, R001
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special provisions (RID)	:	TP1
Tank codes for RID tanks (RID)	:	L4BN
Transport category (RID)	:	3
Special provisions for carriage – Packages (RID)	:	W12
Colis express (express parcels) (RID)	:	CE4
Hazard identification number (RID)	:	38

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference	:	Water hazard class (WGK) 2, hazard to waters (Classification according to VwVwS, Annex 4)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	:	Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen	:	formaldehyde … % is listed
SZW-lijst van mutagene stoffen	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	:	methanol is listed

Denmark

Recommendations Danish Regulation	:	Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Carc. 2	Carcinogenicity, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Sens. 1	Sensitisation — Skin, Category 1
STOT SE 1	Specific target organ toxicity — single exposure, Category 1
STOT SE 2	Specific target organ toxicity — Single exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour
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
H331	Toxic if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H370	Causes damage to organs
H371	May cause damage to organs

SDS ISOLAB

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product