

Formaldehyde solution

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-923.015/2



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

1.1. Product identifier

Product form : Mixture
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 Laborgeräte GmbH
Am Dillhof 2 - 63863 Eschau / GERMANY
Tel: + 49 93 74 / 978 55-0
Fax: +49 93 74 / 978 55-29
prodsafe@isolab.de

1.4. Emergency telephone number

| Country | Organisation/Company | Address | Emergency number | Comment |
|---------|---|-----------------------------------|------------------|---------|
| Germany | Giftnotruf der Charité CBF, Haus VIII (Wirtschaftsgebäude), 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]

Acute Tox. 3 (Oral) H301
Acute Tox. 3 (Dermal) H311
Acute Tox. 3 (Inhalation:dust,mist) H331
Skin Corr. 1B H314
Skin Sens. 1 H317
Muta. 2 H341
Carc. 1B H350
STOT SE 1 H370
STOT SE 3 H335

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

Adverse physicochemical, human health and environmental effects

May cause cancer. Suspected of causing genetic defects. May cause damage to organs. Toxic in contact with skin. Toxic if inhaled. Toxic if swallowed. 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) :



GHS05

GHS06

GHS08

Signal word (CLP) :

Danger

Hazardous ingredients :

formaldehyde ...%; methanol

Hazard statements (CLP) :

H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction
H335 - May cause respiratory irritation.
H341 - Suspected of causing genetic defects.
H350 - May cause cancer.
H370 - Causes damage to organs.

Precautionary statements (CLP) :

P201 - Obtain special instructions before use.

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P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P310 - IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

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 ... % (Note B)(Note D) | (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. 1B, H350 Muta. 2, H341 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 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 | 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 ... % (Note B) | (CAS-No.) 64-18-6 (EC-No.) 200-579-1 (EC Index-No.) 607-001-00-0 | < 10 | 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 | (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 | (2 =<C < 10) Eye Irrit. 2, H319 (2 =<C < 10) Skin Irrit. 2, H315 (10 =<C < 90) Skin Corr. 1B, H314 (C >= 90) Skin Corr. 1A, H314 |

Note 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.

Note 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'.

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

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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. Call a physician immediately. Do not induce vomiting.

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

Symptoms/effects after inhalation : May cause respiratory irritation.
Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects 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

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 : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapours/spray.

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. Notify authorities if product enters sewers or public waters.

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 : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

Hygiene measures : Separate working clothes from town clothes. Launder separately. 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

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

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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| 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) |
| Austria | Local name | Formaldehyd |
| Austria | MAK (mg/m ³) | 0.6 mg/m ³ |
| Austria | MAK (ppm) | 0.5 ppm |
| Austria | MAK Short time value (mg/m ³) | 0.6 mg/m ³ |
| 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/m ³) | 0.38 mg/m ³ |
| Belgium | Short time value (ppm) | 0.3 ppm |
| 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 werkproces moet zo zijn ontworpen dat de blootstelling de grenswaarde nooit overschrijdt. Bij een controle geldt dat de bemonsterde periode zo 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/m ³) | 1 mg/m ³ |
| Bulgaria | OEL STEL (mg/m ³) | 2 mg/m ³ |
| Croatia | Local name | Formaldehyd |
| Croatia | GVI (granična vrijednost izloženosti) (mg/m ³) | 2.5 mg/m ³ |
| Croatia | GVI (granična vrijednost izloženosti) (ppm) | 2 ppm |
| Croatia | KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³) | 2.5 mg/m ³ |
| 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/m ³) | 0.5 mg/m ³ |
| Czech Republic | Expoziční limity (PEL) (ppm) | 0.41 ppm |
| Czech Republic | Expoziční limity (NPK-P) (mg/m ³) | 1 mg/m ³ |
| 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/m ³) | 0.4 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (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 |

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| formaldehyde ...% (50-00-0) | | |
|-----------------------------|---|--|
| Finland | HTP-arvo (8h) (mg/m ³) | 0.37 mg/m ³ |
| Finland | HTP-arvo (8h) (ppm) | 0.3 ppm |
| Finland | HTP-arvo (15 min) | 1.2 mg/m ³ |
| Finland | HTP-arvo (15 min) (ppm) | 1 ppm |
| Finland | Huomautus (FI) | kattoarvo |
| France | Local name | Aldéhyde formique |
| France | VME (ppm) | 0.5 ppm |
| France | VLE (ppm) | 1 ppm |
| France | Note (FR) | Valeurs recommandées/admises; substance classée cancérigène de catégorie 2 |
| Germany | Local name | Formaldehyd |
| Germany | TRGS 900 Occupational exposure limit value (mg/m ³) | 0.37 mg/m ³ |
| Germany | TRGS 900 Occupational exposure limit value (ppm) | 0.3 ppm |
| Germany | Remark (TRGS 900) | AGS,Sh,Y,X |
| Greece | OEL TWA (mg/m ³) | 2.5 mg/m ³ |
| Greece | OEL TWA (ppm) | 2 ppm |
| Greece | OEL STEL (mg/m ³) | 2.5 mg/m ³ |
| Greece | OEL STEL (ppm) | 2 ppm |
| Hungary | Local name | FORMALDEHID |
| Hungary | AK-érték | 0.6 mg/m ³ |
| Hungary | CK-érték | 0.6 mg/m ³ |
| Hungary | Megjegyzések (HU) | b, m, sz; VI. |
| Ireland | Local name | Formaldehyde |
| Ireland | OEL (8 hours ref) (ppm) | 0.2 ppm |
| Ireland | OEL (15 min ref) (ppm) | 0.4 ppm |
| Ireland | Notes (IE) | Carc.1B, Sens. |
| Latvia | Local name | Formaldehyds (metanāls) |
| Latvia | OEL TWA (mg/m ³) | 0.5 mg/m ³ |
| Lithuania | Local name | Formaldehidas |
| Lithuania | IPRV (mg/m ³) | 0.6 mg/m ³ |
| Lithuania | IPRV (ppm) | 0.5 ppm |
| Lithuania | NRV (mg/m ³) | 1.2 mg/m ³ |
| Lithuania | NRV (ppm) | 1 ppm |
| Lithuania | Remark (LT) | Ū (ūmus poveikis); J (jautrinantis poveikis); K (kancerogeninis poveikis) |
| Netherlands | Local name | Formaldehyde |
| Netherlands | Grenswaarde TGG 8H (mg/m ³) | 0.15 mg/m ³ |
| Netherlands | Grenswaarde TGG 15MIN (mg/m ³) | 0.5 mg/m ³ |
| Poland | Local name | Formaldehyd |
| Poland | NDS (mg/m ³) | 0.5 mg/m ³ |
| Poland | NDSch (mg/m ³) | 1 mg/m ³ |
| Portugal | Local name | Formaldeído |
| Portugal | OEL - Ceilings (mg/m ³) | 0.3 mg/m ³ |
| Portugal | OEL - Ceilings (ppm) | 0.3 ppm |
| Romania | Local name | Formaldehida |
| Romania | OEL TWA (mg/m ³) | 1.2 mg/m ³ |
| Romania | OEL TWA (ppm) | 1 ppm |
| Romania | OEL STEL (mg/m ³) | 3 mg/m ³ |
| Romania | OEL STEL (ppm) | 2 ppm |
| Slovakia | Local name | Formaldehyd (metanál) |

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| formaldehyde ...% (50-00-0) | | |
|-----------------------------|---|---|
| Slovakia | NPHV (priemerná) (mg/m ³) | 0.37 mg/m ³ |
| Slovakia | NPHV (priemerná) (ppm) | 0.3 ppm |
| Slovakia | OEL STEL (mg/m ³) | 0.74 mg/m ³ |
| Slovakia | OEL STEL (ppm) | 0.6 ppm |
| Slovakia | Upozornenie (SK) | S - znamená, že faktor môže spôsobiť senzibilizáciu |
| Slovenia | Local name | formaldehyd |
| Slovenia | OEL TWA (mg/m ³) | 0.62 mg/m ³ |
| Slovenia | OEL TWA (ppm) | 0.5 ppm |
| Slovenia | OEL STEL (mg/m ³) | 0.62 mg/m ³ |
| Slovenia | OEL STEL (ppm) | 0.5 ppm |
| Slovenia | KTV factor SL | 1 |
| Spain | Local name | Formaldehído |
| Spain | VLA-EC (mg/m ³) | 0.37 mg/m ³ |
| 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?tip o=plaguicidas Base de datos de productos fitosanitarios http://www.magrama.gob.es/agricultura/pags/fitos/regi stro/fichas/pdf/Lista_sa.pdf). |
| Sweden | Local name | Formaldehyd |
| Sweden | nivågränsvärde (NVG) (mg/m ³) | 0.37 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (ppm) | 0.3 ppm |
| Sweden | kortidsvärde (KTV) (mg/m ³) | 0.74 mg/m ³ |
| 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 arbetsmiljörisiker); 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 vissa ämnen ska arbetsgivaren erbjuda läkarundersökning och för andra ämnen gäller krav på periodisk läkarundersökning och tjänstbarhetsbedömning. Se föreskrifterna om kemiska arbetsmiljörisiker); 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 arbetsmiljörisiker. Dessa ämnen har inga gränsvärden men i vissa fall riktvärden) |
| United Kingdom | Local name | Formaldehyde |
| United Kingdom | WEL TWA (mg/m ³) | 2.5 mg/m ³ |

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| formaldehyde ...% (50-00-0) | | |
|------------------------------------|---|---|
| United Kingdom | WEL TWA (ppm) | 2 ppm |
| United Kingdom | WEL STEL (mg/m ³) | 2.5 mg/m ³ |
| United Kingdom | WEL STEL (ppm) | 2 ppm |
| Russian Federation | Local name | Формальдегид+ |
| Russian Federation | OEL Ceiling (mg/m ³) | 0.5 mg/m ³ |
| 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/m ³) | 0.6 mg/m ³ 1.2 mg/m ³ |
| Norway | Grenseverdier (AN) (ppm) | 0.5 ppm 1 ppm |
| Norway | Grenseverdier (Takverdi) (mg/m ³) | 1.2 mg/m ³ |
| Norway | Grenseverdier (Takverdi) (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 | MAK (mg/m ³) | 0.37 mg/m ³ |
| Switzerland | MAK (ppm) | 0.3 ppm |
| Switzerland | KZGW (mg/m ³) | 0.74 mg/m ³ |
| 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 [§] 1.3.2.3 |
| Australia | Local name | Formaldehyde |
| Australia | TWA (mg/m ³) | 1.2 mg/m ³ |
| 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 | 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 |
| EU | IOELV TWA (mg/m ³) | 260 mg/m ³ |
| EU | IOELV TWA (ppm) | 200 ppm |
| EU | Notes | skin |
| Austria | Local name | Methanol |
| Austria | MAK (mg/m ³) | 260 mg/m ³ |
| Austria | MAK (ppm) | 200 ppm |

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| methanol (67-56-1) | | |
|--------------------|--|---|
| Austria | MAK Short time value (mg/m ³) | 1040 mg/m ³ |
| Austria | MAK Short time value (ppm) | 800 ppm |
| Austria | Remark (AT) | H |
| Belgium | Local name | Alcool méthylique # Methanol |
| Belgium | Limit value (mg/m ³) | 266 mg/m ³ |
| Belgium | Limit value (ppm) | 200 ppm |
| Belgium | Short time value (mg/m ³) | 333 mg/m ³ |
| Belgium | Short time value (ppm) | 250 ppm |
| 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/m ³) | 260 mg/m ³ |
| 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/m ³) | 260 mg/m ³ |
| 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/m ³) | 250 mg/m ³ |
| Czech Republic | Expoziční limity (PEL) (ppm) | 189 ppm |
| Czech Republic | Expoziční limity (NPK-P) (mg/m ³) | 1000 mg/m ³ |
| Czech Republic | Expoziční limity (NPK-P) (ppm) | 750 ppm |
| Czech Republic | Remark (CZ) | D |
| Denmark | Local name | Methanol (Methylalkohol) |
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 260 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (ppm) | 200 ppm |
| 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/m ³) | 250 mg/m ³ |
| Estonia | OEL TWA (ppm) | 200 ppm |
| Estonia | OEL STEL (mg/m ³) | 350 mg/m ³ |
| Finland | Local name | Metanoli |
| Finland | HTP-arvo (8h) (mg/m ³) | 270 mg/m ³ |
| Finland | HTP-arvo (8h) (ppm) | 200 ppm |
| Finland | HTP-arvo (15 min) | 330 mg/m ³ |
| Finland | HTP-arvo (15 min) (ppm) | 250 ppm |
| Finland | Huomautus (FI) | iho |
| France | Local name | Alcool méthylique (méthanol) |

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| methanol (67-56-1) | | |
|--------------------|---|--|
| France | VME (mg/m ³) | 260 mg/m ³ |
| France | VME (ppm) | 200 ppm |
| France | VLE (mg/m ³) | 1300 mg/m ³ |
| France | VLE (ppm) | 1000 ppm |
| France | Note (FR) | VME réglementaires 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/m ³) | 270 mg/m ³ |
| Germany | TRGS 900 Occupational exposure limit value (ppm) | 200 ppm |
| Germany | Remark (TRGS 900) | DFG,EU,H,Y |
| Greece | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Greece | OEL TWA (ppm) | 200 ppm |
| Greece | OEL STEL (mg/m ³) | 325 mg/m ³ |
| Greece | OEL STEL (ppm) | 250 ppm |
| Hungary | Local name | METIL-ALKOHOL |
| Hungary | AK-érték | 260 mg/m ³ |
| Hungary | Megjegyzések (HU) | b, i; II.1. |
| Ireland | Local name | Methanol |
| Ireland | OEL (8 hours ref) (mg/m ³) | 260 mg/m ³ |
| Ireland | OEL (8 hours ref) (ppm) | 200 ppm |
| Ireland | Notes (IE) | Sk, IOELV |
| Italy | Local name | Metanolo |
| Italy | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Italy | OEL TWA (ppm) | 200 ppm |
| Latvia | Local name | Metanols (metilspirts, karbinols) |
| Latvia | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Latvia | OEL TWA (ppm) | 200 ppm |
| Lithuania | Local name | Metanolis (metilo alkoholis) |
| Lithuania | IPRV (mg/m ³) | 260 mg/m ³ |
| Lithuania | IPRV (ppm) | 200 ppm |
| Lithuania | Remark (LT) | O (medžiaga į organizmą gali prasiskverbti pro nepažeistą odą) |
| Luxembourg | Local name | Méthanol |
| Luxembourg | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Luxembourg | OEL TWA (ppm) | 200 ppm |
| Malta | Local name | Methanol |
| Malta | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Malta | OEL TWA (ppm) | 200 ppm |
| Netherlands | Local name | Methanol |
| Netherlands | Grenswaarde TGG 8H (mg/m ³) | 133 mg/m ³ |
| 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/m ³) | 100 mg/m ³ |
| Poland | NDSch (mg/m ³) | 300 mg/m ³ |
| Portugal | Local name | Metanol (Álcool metílico) |

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| methanol (67-56-1) | | |
|--------------------|---|--|
| Portugal | OEL TWA (ppm) | 200 ppm |
| Portugal | OEL STEL (ppm) | 250 ppm |
| Romania | Local name | Alcool metilic |
| Romania | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Romania | OEL TWA (ppm) | 200 ppm |
| Romania | OEL STEL (ppm) | 5 ppm |
| Slovakia | Local name | Metylalkohol (metanol) |
| Slovakia | NPHV (priemerná) (mg/m ³) | 260 mg/m ³ |
| Slovakia | NPHV (priemerná) (ppm) | 200 ppm |
| Slovakia | Upozornenie (SK) | K - znamená, že faktor môže byť ľahko absorbovaný kožou |
| Slovenia | Local name | metanol (metilalkohol) |
| Slovenia | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Slovenia | OEL TWA (ppm) | 200 ppm |
| Spain | Local name | Metanol (Alcohol metílico) |
| Spain | VLA-ED (mg/m ³) | 266 mg/m ³ |
| 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/m ³) | 250 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (ppm) | 200 ppm |
| Sweden | kortidsvärde (KTV) (mg/m ³) | 350 mg/m ³ |
| 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 kortidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas) |
| United Kingdom | Local name | Methanol |
| United Kingdom | WEL TWA (mg/m ³) | 266 mg/m ³ |
| United Kingdom | WEL TWA (ppm) | 200 ppm |
| United Kingdom | WEL STEL (mg/m ³) | 333 mg/m ³ |
| United Kingdom | WEL STEL (ppm) | 250 ppm |
| 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/m ³) | 15 mg/m ³ |

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| methanol (67-56-1) | | |
|------------------------------------|---|---|
| Russian Federation | OEL TWA (mg/m ³) | 5 mg/m ³ |
| 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/m ³) | 130 mg/m ³ |
| 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 | MAK (mg/m ³) | 260 mg/m ³ 260 mg/m ³ |
| Switzerland | MAK (ppm) | 200 ppm 200 ppm |
| Switzerland | KZGW (mg/m ³) | 1040 mg/m ³ 1040 mg/m ³ |
| 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/m ³) | 260 mg/m ³ |
| Turkey | OEL TWA (ppm) | 200 ppm |
| Turkey | Comments | Deri |
| Australia | Local name | Methyl alcohol |
| Australia | TWA (mg/m ³) | 262 mg/m ³ Synonym (Methanol) |
| Australia | TWA (ppm) | 200 ppm Synonym (Methanol) |
| Australia | STEL (mg/m ³) | 328 mg/m ³ 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 |
| USA - ACGIH | ACGIH TWA (ppm) | 200 ppm |
| USA - ACGIH | ACGIH STEL (ppm) | 250 ppm |
| USA - ACGIH | Remark (ACGIH) | Headache; eye dam; dizziness; nausea |
| USA - OSHA | Local name | Methyl alcohol |
| USA - OSHA | OSHA PEL (TWA) (mg/m ³) | 260 mg/m ³ |
| USA - OSHA | OSHA PEL (TWA) (ppm) | 200 ppm |
| formic acid ... % (64-18-6) | | |
| EU | Local name | Formic acid |
| EU | IOELV TWA (mg/m ³) | 9 mg/m ³ |
| EU | IOELV TWA (ppm) | 5 ppm |
| Austria | Local name | Ameisensäure |
| Austria | MAK (mg/m ³) | 9 mg/m ³ |
| Austria | MAK (ppm) | 5 ppm |
| Austria | MAK Short time value (mg/m ³) | 9 mg/m ³ |
| Austria | MAK Short time value (ppm) | 5 ppm |
| Belgium | Local name | Acide formique # Mierenzuur |
| Belgium | Limit value (mg/m ³) | 9.5 mg/m ³ |
| Belgium | Limit value (ppm) | 5 ppm |
| Belgium | Short time value (mg/m ³) | 19 mg/m ³ |
| Belgium | Short time value (ppm) | 10 ppm |
| Bulgaria | Local name | Мравчена киселина |
| Bulgaria | OEL TWA (mg/m ³) | 9 mg/m ³ |
| Bulgaria | OEL TWA (ppm) | 5 ppm |

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| formic acid ... % (64-18-6) | | |
|-----------------------------|---|---|
| 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/m ³) | 9 mg/m ³ |
| 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 mravení |
| Czech Republic | Expoziční limity (PEL) (mg/m ³) | 9 mg/m ³ |
| Czech Republic | Expoziční limity (PEL) (ppm) | 4.78 ppm |
| Czech Republic | Expoziční limity (NPK-P) (mg/m ³) | 18 mg/m ³ |
| Czech Republic | Expoziční limity (NPK-P) (ppm) | 9.56 ppm |
| Denmark | Local name | Myresyre (Methansyre) |
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 9 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (ppm) | 5 ppm |
| Denmark | Anmærkninger (DK) | E (betyder, at stoffet har en EF-grænseværdi) |
| Estonia | Local name | Metaanhape (sipelghape) |
| Estonia | OEL TWA (mg/m ³) | 9 mg/m ³ |
| Estonia | OEL TWA (ppm) | 5 ppm |
| Finland | Local name | Muurahaishappo |
| Finland | HTP-arvo (8h) (mg/m ³) | 5 mg/m ³ |
| Finland | HTP-arvo (8h) (ppm) | 3 ppm |
| Finland | HTP-arvo (15 min) | 19 mg/m ³ |
| Finland | HTP-arvo (15 min) (ppm) | 10 ppm |
| France | Local name | Acide formique |
| France | VME (mg/m ³) | 9 mg/m ³ |
| France | VME (ppm) | 5 ppm |
| France | Note (FR) | Valeurs réglementaires indicatives |
| Germany | Local name | Ameisensäure |
| Germany | TRGS 900 Occupational exposure limit value (mg/m ³) | 9.5 mg/m ³ |
| Germany | TRGS 900 Occupational exposure limit value (ppm) | 5 ppm |
| Germany | Remark (TRGS 900) | DFG,EU,Y |
| Greece | OEL TWA (mg/m ³) | 9 mg/m ³ |
| Greece | OEL TWA (ppm) | 5 ppm |
| Hungary | Local name | HANGYASAV |
| Hungary | AK-érték | 9 mg/m ³ |
| Hungary | Megjegyzések (HU) | m; l. |
| Ireland | Local name | Formic acid |
| Ireland | OEL (8 hours ref) (mg/m ³) | 9 mg/m ³ |
| Ireland | OEL (8 hours ref) (ppm) | 5 ppm |
| Ireland | Notes (IE) | IOELV |
| Italy | Local name | Acido formico |
| Italy | OEL TWA (mg/m ³) | 9 mg/m ³ |
| Italy | OEL TWA (ppm) | 5 ppm |
| Latvia | Local name | Skudrskābe (metānskābe) |
| Latvia | OEL TWA (mg/m ³) | 9 mg/m ³ |
| Latvia | OEL TWA (ppm) | 5 ppm |

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| formic acid ... % (64-18-6) | | |
|-----------------------------|--|--|
| Lithuania | Local name | Skrudžių rūgštis |
| Lithuania | IPRV (mg/m ³) | 9 mg/m ³ |
| Lithuania | IPRV (ppm) | 5 ppm |
| Luxembourg | Local name | Acide formique |
| Luxembourg | OEL TWA (mg/m ³) | 9 mg/m ³ |
| Luxembourg | OEL TWA (ppm) | 5 ppm |
| Malta | Local name | Formic acid |
| Malta | OEL TWA (mg/m ³) | 9 mg/m ³ |
| Malta | OEL TWA (ppm) | 5 ppm |
| Netherlands | Local name | Mierenzuur |
| Netherlands | Grenswaarde TGG 15MIN (mg/m ³) | 5 mg/m ³ |
| Poland | Local name | Kwas mrówkowy |
| Poland | NDS (mg/m ³) | 5 mg/m ³ |
| Poland | NDSch (mg/m ³) | 15 mg/m ³ |
| Portugal | Local name | Ácido fórmico |
| Portugal | OEL TWA (ppm) | 5 ppm |
| Portugal | OEL STEL (ppm) | 10 ppm |
| Romania | Local name | Acid formic |
| Romania | OEL TWA (mg/m ³) | 9 mg/m ³ |
| Romania | OEL TWA (ppm) | 5 ppm |
| Slovakia | Local name | Kyselina mravčia (kyselina metánová) |
| Slovakia | NPHV (priemerná) (mg/m ³) | 9 mg/m ³ |
| Slovakia | NPHV (priemerná) (ppm) | 5 ppm |
| Slovenia | Local name | mravljična kislina |
| Slovenia | OEL TWA (mg/m ³) | 9 mg/m ³ |
| Slovenia | OEL TWA (ppm) | 5 ppm |
| Spain | Local name | Ácido fórmico |
| Spain | VLA-ED (mg/m ³) | 9 mg/m ³ |
| 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/m ³) | 5 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (ppm) | 3 ppm |
| Sweden | kortidsvärde (KTV) (mg/m ³) | 9 mg/m ³ |
| Sweden | kortidsvärde (KTV) (ppm) | 5 ppm |

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| formic acid ... % (64-18-6) | | |
|-----------------------------|---|---|
| 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/m ³) | 9.6 mg/m ³ |
| United Kingdom | WEL TWA (ppm) | 5 ppm |
| Russian Federation | Local name | Метановая кислота+ |
| Russian Federation | OEL Ceiling (mg/m ³) | 1 mg/m ³ |
| 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/m ³) | 9 mg/m ³ |
| Norway | Grenseverdier (AN) (ppm) | 5 ppm |
| Norway | Merknader (NO) | E (EU har en veiledende grenseverdi for stoffet) |
| Switzerland | Local name | Ameisensäure |
| Switzerland | MAK (mg/m ³) | 9.5 mg/m ³ |
| Switzerland | MAK (ppm) | 5 ppm |
| Switzerland | KZGW (mg/m ³) | 19 mg/m ³ |
| 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/m ³) | 9 mg/m ³ |
| Turkey | OEL TWA (ppm) | 5 ppm |
| Australia | Local name | Formic acid |
| Australia | TWA (mg/m ³) | 9.4 mg/m ³ |
| Australia | TWA (ppm) | 5 ppm |
| Australia | STEL (mg/m ³) | 19 mg/m ³ |
| Australia | STEL (ppm) | 10 ppm |
| USA - ACGIH | Local name | Formic acid |
| USA - ACGIH | ACGIH TWA (ppm) | 5 ppm |
| USA - ACGIH | ACGIH STEL (ppm) | 10 ppm |
| USA - ACGIH | Remark (ACGIH) | URT, eye, & skin irr |
| USA - OSHA | Local name | Formic acid |
| USA - OSHA | OSHA PEL (TWA) (mg/m ³) | 9 mg/m ³ |
| 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:

Protective goggles

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

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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 | : 2.8 - 4.0 (H ₂ O, 20 °C) |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : < -15 °C |
| Freezing point | : No data available |
| Boiling point | : 93 - 96 °C (1013 hPa) |
| Flash point | : 69 °C water solution. |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapour pressure | : > 100 (kPa) |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : 1.09 g/cm ³ (20 °C) |
| Solubility | : Miscible with water. |
| 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 | : 7 - 73 % (V) (Formaldehyde) |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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

None under recommended storage and handling conditions (see section 7).

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 : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation:dust,mist: Toxic if inhaled.

| | |
|---------------------|---------------------------------|
| ATE CLP (oral) | 175.4385964912 mg/kg bodyweight |
| ATE CLP (dermal) | 526.3157894737 mg/kg bodyweight |
| ATE CLP (dust,mist) | 0.8771929825 mg/l/4h |

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| formaldehyde ...% (50-00-0) | |
|---|----------------------|
| LD50 oral | 100 mg/kg bodyweight |
| LD50 dermal | 270 mg/kg bodyweight |
| LC50 inhalation rat (Dust/Mist - mg/l/4h) | 497 mg/l |

| | |
|-----------------------------------|---|
| 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 | : Suspected of causing genetic defects. |
| Carcinogenicity | : May cause 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 |
| EC50 other aquatic organisms 1 | 5.8 mg/l waterflea |
| EC50 other aquatic organisms 2 | 3.48 mg/l |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

| formaldehyde ...% (50-00-0) | |
|-----------------------------|-------|
| Log Pow | 0.779 |

12.4. Mobility in soil

No additional information available

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.

SECTION 14: Transport information

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

| ADR | IMDG | IATA | ADN | RID |
|--|---|---|---|---|
| 14.1. UN number | | | | |
| 2209 | 2209 | 2209 | 2209 | 2209 |
| 14.2. UN proper shipping name | | | | |
| FORMALDEHYDE SOLUTION (CONTAINS ; formaldehyde ... %) | FORMALDEHYDE SOLUTION (CONTAINS ; formaldehyde ... %) | Formaldehyde solution (CONTAINS ; formaldehyde ... %) | FORMALDEHYDE SOLUTION (CONTAINS ; formaldehyde ... %) | FORMALDEHYDE SOLUTION (CONTAINS ; formaldehyde ... %) |
| Transport document description | | | | |
| UN 2209 FORMALDEHYDE SOLUTION (CONTAINS ; formaldehyde ... %), 8, III, (E) | UN 2209 FORMALDEHYDE SOLUTION (CONTAINS ; formaldehyde ... %), 8, III | UN 2209 Formaldehyde solution (CONTAINS ; formaldehyde ... %), 8, III | UN 2209 FORMALDEHYDE SOLUTION (CONTAINS ; formaldehyde ... %), 8, III | UN 2209 FORMALDEHYDE SOLUTION (CONTAINS ; formaldehyde ... %), 8, III |

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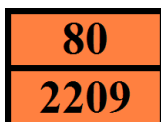


| ADR | IMDG | IATA | ADN | RID |
|---|---|------------------------------------|------------------------------------|------------------------------------|
| 14.3. Transport hazard class(es) | | | | |
| 8 | 8 | 8 | 8 | 8 |
| | | | | |
| 14.4. Packing group | | | | |
| III | III | III | III | III |
| 14.5. 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) | : C9 |
| Special provisions (ADR) | : 533 |
| Limited quantities (ADR) | : 5I |
| Excepted quantities (ADR) | : E1 |
| Packing instructions (ADR) | : P001, IBC03, LP01, 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 | : AT |
| Transport category (ADR) | : 3 |
| Special provisions for carriage - Packages (ADR) | : V12 |
| Hazard identification number (Kemler No.) | : 80 |
| Orange plates | : |



Tunnel restriction code (ADR) : E

- Transport by sea

| | |
|------------------------------------|---|
| Limited quantities (IMDG) | : 5 L |
| Excepted quantities (IMDG) | : E1 |
| Packing instructions (IMDG) | : P001, LP01 |
| IBC packing instructions (IMDG) | : IBC03 |
| Tank instructions (IMDG) | : T4 |
| Tank special provisions (IMDG) | : TP1 |
| EmS-No. (Fire) | : F-A |
| EmS-No. (Spillage) | : S-B |
| Stowage category (IMDG) | : A |
| Properties and observations (IMDG) | : Colourless, clear liquid, with a suffocating pungent odour. Usually stabilized with methyl alcohol. Miscible with water. Causes burns to skin, eyes and mucous membranes. |
| MFAG-No | : 132 |

- Air transport

| | |
|--|--------|
| PCA Excepted quantities (IATA) | : E1 |
| PCA Limited quantities (IATA) | : Y841 |
| PCA limited quantity max net quantity (IATA) | : 1L |
| PCA packing instructions (IATA) | : 852 |

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PCA max net quantity (IATA) : 5L
CAO packing instructions (IATA) : 856
CAO max net quantity (IATA) : 60L
ERG code (IATA) : 8i

- Inland waterway transport

Classification code (ADN) : C9
Special provisions (ADN) : 533
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

- Rail transport

Classification code (RID) : C9
Special provisions (RID) : 533
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1
Packing instructions (RID) : P001, IBC03, LP01, 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) : CE8
Hazard identification number (RID) : 80

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, significant 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

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Denmark

| | |
|-----------------------------------|--|
| Class for fire hazard | : Class III-1 |
| Store unit | : 50 liter |
| Classification remarks | : Flammable according to the Danish Ministry of Justice; Emergency management guidelines for the storage of flammable liquids must be followed |
| 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 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 3 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Carc. 1B | Carcinogenicity, Category 1B |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Muta. 2 | Germ cell mutagenicity, Category 2 |
| Skin Corr. 1A | Skin corrosion/irritation, Category 1A |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1B |
| Skin Sens. 1 | Skin sensitisation, 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. |
| H341 | Suspected of causing genetic defects. |
| H350 | May cause cancer. |
| H370 | Causes damage to organs. |

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SDS ISOLAB

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