

## Methanol

Version number: 4.0  
Replaces version of: 2016-08-11 (GHS 3)

Revision: 2020-02-12

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

#### 1.1 Product identifier

Trade name	<b>Methanol</b>
Identification of the substance	<b>Methanol</b>
Registration number (REACH)	01-2119433307-44-xxxx
EC number	200-659-6
CAS number	67-56-1

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

Relevant identified uses	Professional use Industrial use See attached exposure scenarios
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#### 1.3 Details of the supplier of the safety data sheet

BioMethanol Chemie Nederland B.V. (BioMCN)  
Oosterhorn 10  
9936 HD Farmsum  
PO Box: 251  
9930 AG  
Netherlands

Telephone: +31 (0) 88 664 7700  
e-mail: [info@biomcn.eu](mailto:info@biomcn.eu)  
Website: <http://www.biomcn.eu/>

e-mail (competent person) [info@biomcn.eu](mailto:info@biomcn.eu)

#### 1.4 Emergency telephone number

Emergency information service	+31 (0) 88 664 7700 This number is only available during the following office hours: Mon-Fri 09:00 - 17:00
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Poison centre		
Country	Name	Telephone
United Kingdom	National Poisons Information Service (NPIS) (medical professionals only)	0344-8920111
United Kingdom	NHS (general public)	non-emergency: 111 or a doctor; emergency: 999

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Section	Hazard class	Category	Hazard class and category	Hazard statement
2.6	flammable liquid	2	Flam. Liq. 2	H225
3.1O	acute toxicity (oral)	3	Acute Tox. 3	H301
3.1D	acute toxicity (dermal)	3	Acute Tox. 3	H311
3.1I	acute toxicity (inhal.)	3	Acute Tox. 3	H331
3.8	specific target organ toxicity - single exposure	1	STOT SE 1	H370

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For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Immediate effects can be expected after short-term exposure. The product is combustible and can be ignited by potential ignition sources.

### 2.2 Label elements

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

- signal word                      Danger

- pictograms

GHS02, GHS06,  
GHS08



- hazard statements

H225                                  Highly flammable liquid and vapour.  
H301+H311+H331                Toxic if swallowed, in contact with skin or if inhaled.  
H370                                  Causes damage to organs (eye, central nervous system).

- precautionary statements

P210                                  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P241                                  Use explosion-proof electrical/ventilating/lighting/tooling equipment.  
P260                                  Do not breathe mist/vapours/spray.  
P280                                  Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P310                         IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P303+P361+P353                IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340                        IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P403+P235                        Store in a well-ventilated place. Keep cool.  
P501                                  Dispose of contents/container in accordance with local/regional/national/international regulations.

### 2.3 Other hazards

Of no significance.

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. According to the results of its assessment, this substance is not a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Name of substance	Methanol
Identifiers	
REACH Reg. No	01-2119433307-44-xxxx
CAS No	67-56-1
EC No	200-659-6
Index No	603-001-00-X
Purity	100 %
Molecular formula	CH4O
Molar mass	32.04 g/mol

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Structural formula



### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Mouth to mouth resuscitation should be avoided. Use alternative methods, preferably with oxygen or compressed air driven apparatus. Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.

Following eye contact

Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Following ingestion

Rinse mouth with water (only if the person is conscious). Let water be drunk in little sips (dilution effect). Do NOT induce vomiting. Call a POISON CENTER or doctor if you feel unwell.

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

Symptoms and effects are not known to date.

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

For specialist advice physicians should contact the poison centre. Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media

Alcohol resistant foam; Dry extinguishing powder; Carbon dioxide (CO<sub>2</sub>)

Unsuitable extinguishing media

Water jet.

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

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products

During fire hazardous fumes/smoke could be produced, Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Self-contained breathing apparatus (SCBA), Standard protective clothing for firefighters

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### SECTION 6: Accidental release measures

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

For non-emergency personnel

Follow emergency procedures such as the need to evacuate the danger area or to consult an expert. Remove persons to safety. Warning and evacuating people in the neighbourhood. Ventilate affected area. Control of dust. Keep away from sources of ignition - No smoking.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases. Use personal protective equipment as required.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

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

Advice on how to contain a spill

Covering of drains.

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece).

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours may form explosive mixtures with air.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

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

Managing of associated risks

- explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

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- incompatible substances or mixtures  
Observe hints for combined storage. Incompatible materials: see section 10.

### Control of effects

#### Protect against external exposure, such as

High temperatures. UV-radiation/sunlight. Static discharges.

### Consideration of other advice

Store in a well-ventilated place. Keep container tightly closed.

### - ventilation requirements

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted. Use local and general ventilation. Ground/bond container and receiving equipment.

### - packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

## 7.3 Specific end use(s)

There is no additional information.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

Occupational exposure limit values (Workplace Exposure Limits)									
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Notation	Source
EU	methanol	67-56-1	IOELV	200	260				2006/15/EC
GB	methanol	67-56-1	WEL	200	266	250	333		EH40/2005

#### Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)  
TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

### Relevant DNELs/DMELs/PNECs and other threshold levels

Relevant DNELs and other threshold levels				
Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	130 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	130 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - systemic effects
DNEL	130 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
DNEL	130 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects
DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
DNEL	26 mg/m <sup>3</sup>	human, inhalatory	consumer (private households)	chronic - systemic effects
DNEL	26 mg/m <sup>3</sup>	human, inhalatory	consumer (private households)	acute - systemic effects
DNEL	26 mg/m <sup>3</sup>	human, inhalatory	consumer (private households)	chronic - local effects
DNEL	26 mg/m <sup>3</sup>	human, inhalatory	consumer (private households)	acute - local effects

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Relevant DNELs and other threshold levels				
Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	4 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
DNEL	4 mg/kg bw/day	human, dermal	consumer (private households)	acute - systemic effects
DNEL	4 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
DNEL	4 mg/kg bw/day	human, oral	consumer (private households)	acute - systemic effects

Relevant PNECs and other threshold levels				
Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
PNEC	20.8 mg/l	aquatic organisms	freshwater	short-term (single instance)
PNEC	2.08 mg/l	aquatic organisms	marine water	short-term (single instance)
PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
PNEC	77 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
PNEC	7.7 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
PNEC	100 mg/kg	terrestrial organisms	soil	short-term (single instance)

### 8.2 Exposure controls

#### Appropriate engineering controls

General ventilation.

#### Individual protection measures (personal protective equipment)

##### Eye/face protection



Use safety goggle with side protection (EN 166).

##### Skin protection

Protective clothing (EN 340 & EN ISO 13688).

##### - hand protection



Wear suitable gloves. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Chemical protection gloves are suitable, which are tested according to EN 374. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

##### - type of material

Butyl rubber

##### - material thickness

≥ 0,7 mm

##### - breakthrough times of the glove material

Use gloves with a minimum breakthrough times of the glove material: >480 minutes (permeation: level 6).

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### - other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection. Self-contained breathing apparatus (EN 133).

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	liquid
Colour	colourless
Odour	pungent

#### Other safety parameters

pH (value)	not determined
Melting point/freezing point	-97.8 °C
Initial boiling point and boiling range	64.7 °C at 1,013 hPa
Flash point	9.7 °C at 1,013 hPa
Evaporation rate	5.3 (ether = 1) (Supplier)
Flammability (solid, gas)	not relevant, (fluid)

#### Explosive limits

- lower explosion limit (LEL)	4.4 vol%
- upper explosion limit (UEL)	38.5 vol%

Vapour pressure	169.3 hPa at 25 °C
Density	0.79 – 0.8 g/cm <sup>3</sup> at 20 °C
Vapour density	this information is not available

#### Solubility(ies)

- water solubility	≥1,000 g/l at 20 °C
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#### Partition coefficient

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- n-octanol/water (log KOW)	-0.77 (ECHA)
- soil organic carbon/water (log KOC)	0.13 – 1
Auto-ignition temperature	455 °C at 1,013 hPa (ECHA)
Viscosity	
- dynamic viscosity	>0.544 – <0.59 mPa s at 25 °C
Explosive properties	none
Oxidising properties	none

### 9.2 Other information

There is no additional information.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

It's a reactive substance. Risk of ignition.

If heated:

Risk of ignition.

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

### 10.5 Incompatible materials

Oxidisers, Sodium, Magnesium

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

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

Acute toxicity

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



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Acute toxicity			
Exposure route	Endpoint	Value	Species
inhalation: vapour	LC50	128,200 mg/m <sup>3</sup> /4h	rat
inhalation: vapour	LC50	85,400 mg/l/4h	cat
dermal	LD50	17,100 mg/kg	rabbit
oral	LD50	>7 mg/kg	monkey
oral	LD50	>1,187 mg/kg	rat

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Fertility:

NOAEC (Rat) = 1.3 mg/L

NOAEC (Monkey) = 2.39 mg/L

NOAEL(Oral) Sperm = 1000 mg/kg bw/day

Developmental Toxicity:

NOAEC (Rat) = 1.33 mg/L

LOAEL (Mouse) = 1700 mg/kg

Developmental Toxicity:

NOAEC (Rat, Mouse) = 1.33 mg/L

LOAEL(Mouse) = 5000 mg/kg.

### Specific target organ toxicity - single exposure

Causes damage to organs (eye, central nervous system). Exposure route: Oral. Inhalation.

Hazard category	Target organ	Exposure route
1	eye	if exposed
1	central nervous system	if exposed

### Specific target organ toxicity - repeated exposure

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

Exposure route	Endpoint	Value	Exposure time	Species	Notes
oral	LOAEL	2,340 mg/kg		not specified	3d
inhalation: vapour	NOAEL	13 mg/m <sup>3</sup>		not specified	7mth

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

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### Absorption, metabolism, distribution and excretion studies

Rapidly metabolised.  
Metabolised to the following: Formaldehyde. Metabolised to the following: water, Carbon dioxide (CO).  
Metabolised before excretion. Excreted to the air during respiration.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)				
Endpoint	Value	Species	Source	Exposure time
IC50	>880 mg/l	microorganisms		24 h
LC50	15,400 mg/l	fish	European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>	96 h
EC50	12,700 mg/l	fish	European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>	96 h
ErC50	22,000 mg/l	algae	European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>	96 h

### Biodegradation

The substance is readily biodegradable. The relevant substances of the mixture are readily biodegradable.

### 12.2 Persistence and degradability

Process of degradability			
Process	Degradation rate	Time	Source
oxygen depletion	69 %	5 d	European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>

### 12.3 Bioaccumulative potential

n-octanol/water (log KOW)	-0.77 (ECHA)
BCF	<10

### 12.4 Mobility in soil

Henry's law constant	0.461 Pa m <sup>3</sup> /mol at 25 °C
The Organic Carbon normalised adsorption coefficient	0.13 - 1

### 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

### 12.6 Other adverse effects

Data are not available.

#### Endocrine disrupting potential

Not listed.

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks



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

### SECTION 14: Transport information

<b>14.1 UN number</b>	1230
<b>14.2 UN proper shipping name</b>	METHANOL
<b>14.3 Transport hazard class(es)</b>	
Class	3 (flammable liquids)
Subsidiary risk(s)	6.1 (acute toxicity)
<b>14.4 Packing group</b>	II (substance presenting medium danger)
<b>14.5 Environmental hazards</b>	non-environmentally hazardous acc. to the dangerous goods regulations
<b>14.6 Special precautions for user</b>	
	Provisions for dangerous goods (ADR) should be complied within the premises.
<b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	
	No data available.

#### Information for each of the UN Model Regulations

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

UN number	1230
Proper shipping name	METHANOL
Class	3
Classification code	FT1
Packing group	II
Danger label(s)	3+6.1
 	
Special provisions (SP)	279, 802(ADN)
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
Transport category (TC)	2
Tunnel restriction code (TRC)	D/E

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Hazard identification No	336
Emergency Action Code	2WE
<b>International Maritime Dangerous Goods Code (IMDG)</b>	
UN number	1230
Proper shipping name	METHANOL
Class	3
Subsidiary risk(s)	6.1
Marine pollutant	-
Packing group	II
Danger label(s)	3+6.1



Special provisions (SP)	279
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-E, S-D
Stowage category	B

### International Civil Aviation Organization (ICAO-IATA/DGR)

UN number	1230
Proper shipping name	Methanol
Class	3
Subsidiary risk(s)	6.1
Packing group	II
Danger label(s)	3+6.1



Special provisions (SP)	A113
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L

## SECTION 15: Regulatory information

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

#### Relevant provisions of the European Union (EU)

#### Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)				
Name of substance	Name acc. to inventory	CAS No	Restriction	No
methanol	methanol	67-56-1	R69	69
methanol	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3
methanol	flammable / pyrophoric		R40	40

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### Legend

- R3**
1. Shall not be used in:
    - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ash-trays,
    - tricks and jokes,
    - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
  2. Articles not complying with paragraph 1 shall not be placed on the market.
  3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
    - can be used as fuel in decorative oil lamps for supply to the general public, and,
    - present an aspiration hazard and are labelled with R65 or H304,
  4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
  5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
    - (a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage';
    - (b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
    - (c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
  6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
  7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.
- R40**
1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:
    - metallic glitter intended mainly for decoration,
    - artificial snow and frost,
    - 'whoopie' cushions,
    - silly string aerosols,
    - imitation excrement,
    - horns for parties,
    - decorative flakes and foams,
    - artificial cobwebs,
    - stink bombs.
  2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: 'For professional users only'.
  3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/324/EEC (2).
  4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.
- R69**
- Shall not be placed on the market to the general public after 9 May 2019 in windscreen washing or defrosting fluids, in a concentration equal to or greater than 0,6 % by weight.

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

Not listed.

### Seveso Directive

2012/18/EU (Seveso III)				
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements		Notes
22	methanol	500	5,000	

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

Not listed.

### Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

Not listed.

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

Not listed.

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### 15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has been carried out.

### SECTION 16: Other information

#### Indication of changes (revised safety data sheet)

Complete revision of the safety data sheet.

Section	Former entry (text/value)	Actual entry (text/value)
2.2		- hazard statements: change in the listing (table)
3.1	Structural formula: structure.jpeg image/jpeg	Structural formula: structure.png image/jpeg
3.1	Remarks: All the percentages given are percentages by weight unless stated otherwise.	
4.1	General notes: Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.	General notes: Do not leave affected person unattended. Remove victim out of the danger area. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice.
4.1	Following eye contact: Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart.	Following eye contact: Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
4.3	Indication of any immediate medical attention and special treatment needed: For specialist advice physicians should contact the anti poison control centre. Treat symptomatically.	Indication of any immediate medical attention and special treatment needed: For specialist advice physicians should contact the poison centre. Treat symptomatically.
5.1	Suitable extinguishing media: Alcohol resistant foam. Dry extinguishing powder. Carbon dioxide (CO <sub>2</sub> ). Foam.	Suitable extinguishing media: Alcohol resistant foam; Dry extinguishing powder; Carbon dioxide (CO <sub>2</sub> )
8.1		Relevant DNELs and other threshold levels: change in the listing (table)
8.2	Skin protection: Protective clothing (EN 340).	Skin protection: Protective clothing (EN 340 & EN ISO 13688).
8.2	Hand protection: safety gloves must be worn  Wear suitable gloves. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Chemical protection gloves are suitable, which are tested according to EN 374. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.	Hand protection: safety gloves must be worn  Wear suitable gloves. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Chemical protection gloves are suitable, which are tested according to EN 374. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
8.2	Breakthrough times of the glove material: >480 minutes (permeation: level 6)	Breakthrough times of the glove material: Use gloves with a minimum breakthrough times of the glove material: >480 minutes (permeation: level 6).

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Section	Former entry (text/value)	Actual entry (text/value)
9.1	Evaporation rate: not determined	Evaporation rate: 5.3 (ether = 1) (Supplier)
9.1	Density: 795 kg/m <sup>3</sup> at 15 °C	Density: 0.79 - 0.8 g/cm <sup>3</sup> at 20 °C
9.1	Water solubility: 1000 g/l at 20 °C	Water solubility: ≥1,000 g/l at 20 °C
9.1	Auto-ignition temperature: 455 °C (ECHA)	Auto-ignition temperature: 455 °C at 1,013 hPa (ECHA)
9.1	Dynamic viscosity: 0.544 - 0.59 mPa s at 25 °C	Dynamic viscosity: >0.544 - <0.59 mPa s at 25 °C
9.2	Other information: Of no significance.	Other information: There is no additional information.
11.1	Specific target organ toxicity - single exposure: Causes damage to organs (eye, heart, brain, liver, central nervous system). Exposure route: Oral. Inhalation.	Specific target organ toxicity - single exposure: Causes damage to organs (eye, central nervous system). Exposure route: Oral. Inhalation.
11.1		Specific target organ toxicity - single exposure: change in the listing (table)
12.1		Aquatic toxicity (acute): change in the listing (table)
12.2	Persistence and degradability: Data are not available.	Persistence and degradability
12.2		Process of degradability: change in the listing (table)
12.3	Bioaccumulative potential: Data are not available.	Bioaccumulative potential
12.4	Mobility in soil: Data are not available.	Mobility in soil
14.7		Marine pollutant: -
14.7	Danger label(s): 3	Danger label(s): 3+6.1
14.7		Danger label(s): change in the listing (table)
14.7	Special provisions (SP): A104, A113	Special provisions (SP): A113
15.1	Restrictions according to REACH, Annex XVII: not listed	Restrictions according to REACH, Annex XVII
15.1		Dangerous substances with restrictions (REACH, Annex XVII): change in the listing (table)
16		Abbreviations and acronyms: change in the listing (table)
16		List of relevant phrases (code and full text as stated in chapter 2 and 3): change in the listing (table)

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### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2006/15/EC	Commission Directive establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
BCF	Bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits ( <a href="http://www.nationalarchives.gov.uk/doc/open-government-licence/">http://www.nationalarchives.gov.uk/doc/open-government-licence/</a> )
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LOAEL	Lowest Observed Adverse Effect Level
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
NOAEL	No Observed Adverse Effect Level
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million



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Abbr.	Descriptions of used abbreviations
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
SVHC	Substance of Very High Concern
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

### Key literature references and sources for data

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

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs (eye, central nervous system).

### Disclaimer

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