

## Safety Data Sheet

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

## Methanol

Version number: 1.0

First version: 2018-03-29

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

1.1	Product identifier				
	Trade name	Methanol			
	Registration number (REACH)	01-211943307-44-0169			
	EC number	200-659-6			
	Index number in CLP Annex VI	603-001-00-X			
	CAS number	67-56-1			
1.2	Relevant identified uses of the substance or mixture and uses advised against				
	Relevant identified uses	General use			
1.3	Details of the supplier of the safety data shee	t			
	Atlantic Methanol Services B.V. Zuidplein 126, WTC Tower H, 15th Floor 1077XV Amsterdam Netherlands	Telephone: +31 20 240 3080 Website: www.atlanticmethanol.com			

#### 1.4 Emergency telephone number

#### **Emergency information service**

1.713.305.5698 or 1. 832.506.4801 (Emergency Contact Numbers for AMPCO Marketing, L.L.C.)

Poison centre	•		
Country	Name	Telephone	Telefax
	CHEMTREC International (outside USA)	1-703-527-3887	

As above or next toxicological information centre.

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

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

Classification							
Section	Hazard class	Category	Hazard class and category	Hazard state- ment			
2.6	flammable liquid	2	Flam. Liq. 2	H225			

## **Methanol**

Classification						
Section	Hazard class	Category	Hazard class and category	Hazard state- ment		
3.10	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		

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. Spillage and fire water can cause pollution of watercourses.

#### 2.2 Label elements

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

Signal word danger

**Pictograms** 

GHS02, GHS06,



#### **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**

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P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition
	sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P308+P311	IF exposed or concerned: Call a POISON CENTER/doctor.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

#### 2.3 **Other hazards**

There is no additional information.

#### Results of PBT and vPvB assessment

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

#### **SECTION 3: Composition/information on ingredients**

Substances	
Name of substance	methanol
Identifiers	
CAS No	67-56-1
EC No	200-659-6
Index No	603-001-00-X
Molecular formula	CH4O
Molar mass	32.04 <sup>g</sup> / <sub>mol</sub>

#### **SECTION 4: First aid measures**

3.1

#### 4.1 Description of first aid measures

#### **General notes**

Take off immediately all contaminated clothing. Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

#### **Following inhalation**

Provide fresh air.

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

#### Following skin contact

Wash with plenty of soap and water.

#### Following eye contact

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing.

#### **Following ingestion**

Induce vomiting when the affected person is not unconscious. Call a physician immediately.

#### Notes for the doctor

none

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

Narcotic effects.

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

Alcoholic beverage let be drunken in little sips

#### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

#### Suitable extinguishing media

water spray, alcohol resistant foam, fire extinguishing powder, carbon dioxide (CO2)

#### Unsuitable extinguishing media

water jet

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

Hazardous decomposition products: Section 10.

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

carbon monoxide (CO), carbon dioxide (CO2)

#### 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

use suitable breathing apparatus

#### **SECTION 6: Accidental release measures**

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

#### For non-emergency personnel

Remove persons to safety.

Ventilate affected area.

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

#### For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

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

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

Collect spillage.

Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.).

#### 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

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

Use local and general ventilation. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. 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.

#### Measures to protect the environment

Avoid release to the environment.

#### Advice on general occupational hygiene

Do not eat, drink and smoke in work areas. Wash hands after use. Preventive skin protection (barrier creams/ointments) is recommended. Remove contaminated clothing and protective equipment before entering eating areas.

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

#### **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 heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Protect from sunlight.

#### Incompatible substances or mixtures

Incompatible materials: see section 10.

#### Protect against external exposure, such as

heat

#### Consideration of other advice

Keep away from food, drink and animal feedingstuffs.

#### Ventilation requirements

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

Provision of sufficient ventilation.

#### **Packaging compatibilities**

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

#### 7.3 Specific end use(s)

No information available.

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

#### 8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)									
Coun- try	Name of agent	CAS No	Nota- tion	Identi- fier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Source
EU	methanol	67-56-1		IOELV	200	260			2017/2398/ EU
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 15minute 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)

### Human health values

Relevant DNELs and other threshold levels						
Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time		
DNEL	260 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects		
DNEL	40 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects		
DNEL	50 mg/m³	human, inhalatory	consumer (private house- holds)	chronic - systemic effects		
DNEL	8 mg/kg bw/day	human, dermal	consumer (private house- holds)	chronic - systemic effects		
DNEL	8 mg/kg bw/day	human, oral	consumer (private house- holds)	chronic - systemic effects		

#### **Environmental values**

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Relevant PNECs and other threshold levels				
Endpoint	Threshold level	Environmental compartment		
PNEC	20.8 <sup>mg</sup> / <sub>l</sub>	freshwater		
PNEC	2.08 <sup>mg</sup> / <sub>l</sub>	marine water		
PNEC	1,540 <sup>mg</sup> / <sub>l</sub>	water		
PNEC	100 <sup>mg</sup> / <sub>l</sub>	sewage treatment plant (STP)		
PNEC	77 <sup>mg</sup> / <sub>kg</sub>	freshwater sediment		
PNEC	7.7 <sup>mg</sup> / <sub>kg</sub>	marine sediment		
PNEC	100 <sup>mg</sup> / <sub>kg</sub>	soil		

### 8.2 Exposure controls

#### Appropriate engineering controls

General ventilation.

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

#### Eye/face protection

Wear eye/face protection.

#### Hand protection

Material	Material thickness	Breakthrough times of the glove material
IIR: isobutene-isoprene (butyl) rub- ber	≥ 0,7 mm	>480 minutes (permeation: level 6)
FKM: fluoro-elastomer	≥ 0,4 mm	>240 minutes (permeation: level 5)

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Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374. 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.

#### **Respiratory protection**

In case of inadequate ventilation wear respiratory protection. Type: AX (gas filters and combined filters against low-boiling point organic compounds, colour code: Brown).

#### **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
Form	fluid
Colour	colourless
Odour	pungent
Odour threshold	these information are not available
Other safety parameters	
pH (value)	these information are not available
Melting point/freezing point	-97.8 °C
Initial boiling point and boiling range	64.7 °C
Flash point	9.7 °C
Evaporation rate	these information are not available
Flammability (solid, gas)	not relevant (fluid)
Explosive limits	
Lower explosion limit (LEL)	6 vol%
Upper explosion limit (UEL)	36 vol%
Vapour pressure	169.3 hPa at 25 °C
Density	0.79 – 0.8 <sup>g</sup> / <sub>cm³</sub> at 20 °C
Vapour density	these information are not available

Relative density	these information are not available
Solubility(ies)	
Water solubility	miscible in any proportion
Partition coefficient	
n-octanol/water (log KOW)	-0.77
Auto-ignition temperature	455 °C
Relative self-ignition temperature for solids	not relevant (Fluid)
Decomposition temperature	these information are not available
Viscosity	
Kinematic viscosity	these information are not available
Dynamic viscosity	0.544 – 0.59 mPa s at 25 °C
Explosive properties	not explosive
Oxidising properties	shall not be classified as oxidising
Other information	

Temperature class (EU, acc. to ATEX)

#### **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

9.2

This material is not reactive under normal ambient conditions.

If heated:

risk of ignition

#### 10.2 Chemical stability

See below "Conditions to avoid".

#### 10.3 Possibility of hazardous reactions

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture.

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#### 10.4 Conditions to avoid

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

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

#### 10.5 Incompatible materials

oxidisers

#### **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

If not otherwise specified the classification is based on:

Animal studies; Evidence from any other toxicity tests; Expert judgement (weight of evidence determination).

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

#### Acute toxicity

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

#### Acute toxicity

Exposure route	Endpoint	Value	Species
inhalation: vapour	LC50	128.2 <sup>mg</sup> / <sub>l</sub> /4h	rat
oral	LD50	>1,187 – 2,769 <sup>mg</sup> / <sub>kg</sub>	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

#### **Skin sensitisation**

Shall not be classified as a skin sensitiser.

#### **Respiratory sensitisation**

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

#### Germ cell mutagenicity

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

#### Carcinogenicity

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

#### **Reproductive toxicity**

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

#### Specific target organ toxicity - single exposure

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

#### Specific target organ toxicity - repeated exposure

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

#### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

### **SECTION 12: Ecological information**

#### 12.1 Toxicity

#### Aquatic toxicity (acute)

Based on available data, the classification criteria are not met.

Endpoint	Value	Species	Exposure time
LC50	15,400 <sup>mg</sup> / <sub>l</sub>	bluegill (Lepomis macrochirus)	96 h
EC50	12,700 <sup>mg</sup> / <sub>l</sub>	bluegill (Lepomis macrochirus)	96 h
EC50	18,260 <sup>mg</sup> / <sub>l</sub>	daphnia magna	96 h
ErC50	~22,000 <sup>mg</sup> / <sub>l</sub>	algae (pseudokirchneriella subcapit- ata)	96 h

#### Aquatic toxicity (chronic)

No data available.

#### 12.2 Persistence and degradability

#### Biodegradation

The substance is readily biodegradable.

#### Persistence

Data are not available.

#### 12.3 Bioaccumulative potential

Data are not available.

n-octanol/water (log KOW)

#### 12.4 Mobility in soil

Data are not available.

#### Henry's law constant

-0.77

#### 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.

#### Remarks

Wassergefährdungsklasse, WGK (water hazard class): 2

#### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

#### Sewage disposal-relevant information

Do not empty into drains.

#### Waste treatment of containers/packagings

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

#### Remarks

Please consider the relevant national or regional provisions.

SECTI	SECTION 14: Transport information		
14.1	UN number	1230	
14.2	UN proper shipping name	METHANOL	
14.3	Transport hazard class(es)		
	Class	3	
	Subsidiary risk(s)	6.1 (acute toxicity)	
14.4	Packing group	II	
14.5	Environmental hazards	non-environmentally hazardous acc. to the dan- gerous goods regulations	

#### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

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

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

	-
UN number	1230
Proper shipping name	UN1230, METHANOL, 3 (6.1), II, (D/E)
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
Hazard identification No	336
Emergency Action Code	2WE
International Maritime Dangerous Goods Co	ode (IMDG)
International Maritime Dangerous Goods Co	<b>ode (IMDG)</b> 1230
_	
UN number	1230
UN number Proper shipping name	1230 UN1230, METHANOL, 3 (6.1), II, 9.7°C c.c.
UN number Proper shipping name Class	1230 UN1230, METHANOL, 3 (6.1), II, 9.7°C c.c. 3
UN number Proper shipping name Class Subsidiary risk(s)	1230 UN1230, METHANOL, 3 (6.1), II, 9.7°C c.c. 3
UN number Proper shipping name Class Subsidiary risk(s) Marine pollutant	1230 UN1230, METHANOL, 3 (6.1), II, 9.7°C c.c. 3 6.1 -
UN number Proper shipping name Class Subsidiary risk(s) Marine pollutant Packing group	1230 UN1230, METHANOL, 3 (6.1), II, 9.7°C c.c. 3 6.1 - II
UN number Proper shipping name Class Subsidiary risk(s) Marine pollutant Packing group	1230 UN1230, METHANOL, 3 (6.1), II, 9.7°C c.c. 3 6.1 - II
UN number Proper shipping name Class Subsidiary risk(s) Marine pollutant Packing group Danger label(s)	1230 UN1230, METHANOL, 3 (6.1), II, 9.7°C c.c. 3 6.1 - II 3+6.1
UN number Proper shipping name Class Subsidiary risk(s) Marine pollutant Packing group Danger label(s) $\overrightarrow{P}$ $\overrightarrow{P}$ Special provisions (SP)	1230 UN1230, METHANOL, 3 (6.1), II, 9.7°C c.c. 3 6.1 - II 3+6.1
UN number Proper shipping name Class Subsidiary risk(s) Marine pollutant Packing group Danger label(s)  Special provisions (SP) Excepted quantities (EQ)	1230 UN1230, METHANOL, 3 (6.1), II, 9.7°C c.c. 3 6.1 - II 3+6.1 279 E2
UN number Proper shipping name Class Subsidiary risk(s) Marine pollutant Packing group Danger label(s)  Special provisions (SP) Excepted quantities (EQ) Limited quantities (LQ)	1230 UN1230, METHANOL, 3 (6.1), II, 9.7°C c.c. 3 6.1 - II 3+6.1 279 E2 1 L

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

UN number	1230	
Proper shipping name	UN1230, Methanol, 3 (6.1), II	
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**

ngerous substances with restrictions (REACH, Annex XVII)				
Name of substance	Name acc. to inventory	CAS No	Type of registration	No
methanol	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		1907/2006/EC annex XVII	3
methanol	flammable / pyrophoric		1907/2006/EC annex XVII	40

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

not listed

#### **Seveso Directive**

2012/18/EU (Seveso III)				
Νο	Dangerous substance/hazard categories	plication of lower	/ (tonnes) for the ap- r and upper-tier re- ments	Notes
22	methanol	500	5,000	

# Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

not listed

## 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

#### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance by the supplier.

### **SECTION 16: Other information**

#### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2017/2398/EU	Directive of the European Parliament and of the Council amending Directive 2004/37/EC on the pro- tection of workers from the risks related to exposure to carcinogens or mutagens at work
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de nav- igation 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)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical sub- stances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
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 (http://www.nationalarchives.gov.uk/doc/open-government-li- cence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations

## Methanol

Abbr.	Descriptions of used abbreviations
ΙΑΤΑ	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 Regula- tion (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
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).

#### Responsible for the safety data sheet

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#### Disclaimer

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



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Safety data sheet

according to 1907/2006/EC, Article 31

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Trade name: Methanol

#### Annex: Exposure scenario 1

· Short title of the exposure scenario ES 1: Use in detergents. de-icers (liquid products) - consumers · Sector of Use SU21 Consumer uses: Private households / general public / consumers · Product category PC4 Anti-Freeze and de-icing products PC35 Washing and cleaning products (including solvent based products) · Environmental release category ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. · Conditions of use · Duration and frequency ≤104 times per year Inhalation: duration of exposition 240 min duration of use 20 min · Physical parameters · Physical state liquid • Concentration of the substance in the mixture  $\leq 2.5 \%$ · Used amount per time or activity Inhalation: 100 g Dermal: 5 g · Other operational conditions • Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting consumer exposure Oral absorption is not expected. Inhalation: Room volume 58 m<sup>3</sup> 0.5 air changes per hour *T*: 20 °C Release area: 5.00E4 cm<sup>2</sup> Dermal: Skin surface potentially exposed: 1900 cm<sup>2</sup> Absorption: 100 % • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Personal protective measures Do not inhale gases / fumes / aerosols. Avoid contact with the skin. · Measures for consumer protection Ensure adequate labelling. • Environmental protection measures • Water Do not allow to reach ground water, water bodies or sewage system. • Disposal measures Ensure that waste is collected and contained. · Disposal procedures Must not be disposed of together with household garbage. Do not allow product to reach sewage system. · Waste type Partially emptied and uncleaned packaging

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Trade name: Methanol

· Exposure estimation

• Workers Not relevant for this Exposure Scenario.

• Environment No further relevant information available.

Consumer No further relevant information available.
Guidance for downstream users No further relevant information available.

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Trade name: Methanol

#### Annex: Exposure scenario 2

· Short title of the exposure scenario ES 2: Use in detergents. de-icers (aerosols) - consumers · Sector of Use SU21 Consumer uses: Private households / general public / consumers · Product category PC4 Anti-Freeze and de-icing products PC35 Washing and cleaning products (including solvent based products) · Environmental release category ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. · Conditions of use · Duration and frequency Cleaning: Inhalation: duration of exposition 60 min duration of use 10 min Spraying: Inhalation: duration of exposition 24.6 s duration of use 24.6 s · Physical parameters · Physical state liquid • Concentration of the substance in the mixture  $\leq 5 \%$ · Used amount per time or activity Cleaning: Dermal: 0.160 g Inhalation: 16.2 g · Other operational conditions • Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting consumer exposure Oral absorption is not expected. Inhalation: Room volume 15 m<sup>3</sup> 2.5 air changes per hour T: 20 °C Dermal: Absorption: 100 % Cleaning: Skin surface potentially exposed: 215 cm<sup>2</sup> Spraying: Skin surface potentially exposed: 960 cm<sup>2</sup> • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Personal protective measures Do not inhale gases / fumes / aerosols. Avoid contact with the skin. · Measures for consumer protection Ensure adequate labelling. (Contd. on page 21)



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Trade name: Methanol

· Environmental protection measures

· Water Do not allow to reach ground water, water bodies or sewage system.

• Disposal measures Ensure that waste is collected and contained.

· Disposal procedures

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· Waste type Partially emptied and uncleaned packaging

• Exposure estimation

 $\cdot$  Workers Not relevant for this Exposure Scenario.

• *Environment* No further relevant information available.

• *Consumer* No further relevant information available.

 $\cdot$  Guidance for downstream users No further relevant information available.

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Trade name: Methanol

#### Annex: Exposure scenario 3

Short title of the exposure scenario ES 3: Use in fuel, household / hobby, e.g. model engines, fuel tanks, fondue set (indoor use) - consumers · Sector of Use SU21 Consumer uses: Private households / general public / consumers • Product category PC13 Fuels · Environmental release category ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor) · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. · Conditions of use · Duration and frequency 2 days per week Inhalation: duration of exposition 10 min duration of use 10 min Dermal: duration of release: 10 min · Physical parameters · Physical state liquid • Concentration of the substance in the mixture  $\leq 80 \%$ · Used amount per time or activity Inhalation: 800 g · Other operational conditions • Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting consumer exposure Oral absorption is not expected. Inhalation: Room volume 20 m<sup>3</sup> 0.5 air changes per hour Release area: 2 cm<sup>2</sup> T: 20 °C Dermal: Absorption: 100 % Skin surface potentially exposed: 430 cm<sup>2</sup> • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Personal protective measures Do not inhale gases / fumes / aerosols. Avoid contact with the skin. · Measures for consumer protection Ensure adequate labelling. Concentrations  $\geq 9 - \leq 80$  weight-% *Efficiency of protective gloves: ≥ 90 %* · Environmental protection measures • Water Do not allow to reach ground water, water bodies or sewage system. • Disposal measures Ensure that waste is collected and contained. · Disposal procedures Must not be disposed of together with household garbage. Do not allow product to reach sewage system. · Waste type Partially emptied and uncleaned packaging

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Trade name: Methanol

· Exposure estimation

• Workers Not relevant for this Exposure Scenario.

• Environment No further relevant information available.

Consumer No further relevant information available.
Guidance for downstream users No further relevant information available.

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Trade name: Methanol

#### Annex: Exposure scenario 4

· Short title of the exposure scenario ES 4: Use in fuel, fuel additive (outdoor use) - consumers · Sector of Use SU21 Consumer uses: Private households / general public / consumers · Product category PC13 Fuels · Environmental release category ERC8e Widespread use of reactive processing aid (no inclusion into or onto article, outdoor) · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. · Conditions of use · Duration and frequency 2 days per week Inhalation: duration of exposition 10 min duration of use 10 min · Physical parameters · Physical state liquid • Concentration of the substance in the mixture 3 % · Used amount per time or activity Inhalation: 5.00E4 g Dermal: 10 g · Other operational conditions • Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting consumer exposure Oral absorption is not expected. Inhalation: Room volume 20 m<sup>3</sup> 0.5 air changes per hour Release area: 2 cm<sup>2</sup> *T*: 20 °C Dermal: Absorption: 100 % Skin surface potentially exposed: 430 cm<sup>2</sup> • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Personal protective measures Do not inhale gases / fumes / aerosols. Avoid contact with the skin. · Measures for consumer protection Ensure adequate labelling. • Environmental protection measures • Water Do not allow to reach ground water, water bodies or sewage system. • Disposal measures Ensure that waste is collected and contained. · Disposal procedures Must not be disposed of together with household garbage. Do not allow product to reach sewage system. · Waste type Partially emptied and uncleaned packaging • Exposure estimation · Workers Not relevant for this Exposure Scenario. • Environment No further relevant information available.

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Consumer No further relevant information available.
Guidance for downstream users No further relevant information available.

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Trade name: Methanol

#### Annex: Exposure scenario 5

• Short title of the exposure scenario ES 5: Distribution • Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites · Process category PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) • Environmental release category ERC1 Manufacture of the substance ERC2 Formulation into mixture · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. · Conditions of use · Duration and frequency 8hrs (full working shift). · Physical parameters · Physical state liquid • Concentration of the substance in the mixture  $\leq 100 \%$ · Other operational conditions • Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting worker exposure Avoid contact with the skin. Do not breathe gas/vapour/aerosol. Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking. Covers use at ambient temperatures + max. 20 °C. • Other operational conditions affecting consumer exposure Oral absorption is not expected. • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Organisational protective measures No special measures required. · Technical protective measures Provide explosion-proof electrical equipment. Ensure that suitable extractors are available on processing machines. *Clean transport lines before decoupling.* Use enclosed means of conveyance. *Empty and flush systems before commissioning or servicing equipment.* Personal protective measures Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

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#### Trade name: Methanol

(Contd. of page 26) If all workplace limits are observed and good ventilation is ensured, no special precautions necessary. Solvent resistant gloves. • Measures for consumer protection Ensure adequate labelling. • Environmental protection measures · Water Do not allow to reach ground water, water bodies or sewage system. • Disposal measures Ensure that waste is collected and contained. · Disposal procedures Must not be disposed of together with household garbage. Do not allow product to reach sewage system. · Waste type Partially emptied and uncleaned packaging • *Exposure estimation* The exposure estimation was carried out in accordance with ECETOC TRA. · Worker (oral) No significant oral exposure · Worker (dermal) The calculated value is smaller than the DNEL. · Worker (inhalation) The calculated value is smaller than the DNEL. · Environment No further relevant information available. · Consumer Not relevant for this Exposure Scenario. · Guidance for downstream users

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

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Trade name: Methanol

#### Annex: Exposure scenario 6

• Short title of the exposure scenario ES 6: Formulation and repackaging of substances and mixtures • Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites · Process category PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC15 Use as laboratory reagent • Environmental release category ERC2 Formulation into mixture · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. · Conditions of use · Duration and frequency 8hrs (full working shift). · Physical parameters · Physical state liquid • Concentration of the substance in the mixture  $\leq 100 \%$ · Other operational conditions • Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting worker exposure Avoid contact with the skin. Do not breathe gas/vapour/aerosol. Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking. Covers use at ambient temperatures + max. 20 °C. • Other operational conditions affecting consumer exposure Oral absorption is not expected. • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Organisational protective measures No special measures required. · Technical protective measures Provide explosion-proof electrical equipment. Ensure that suitable extractors are available on processing machines. *Clean transport lines before decoupling.* Use enclosed means of conveyance. Empty and flush systems before commissioning or servicing equipment. Personal protective measures Do not inhale gases / fumes / aerosols. Avoid contact with the skin. If all workplace limits are observed and good ventilation is ensured, no special precautions necessary. (Contd. on page 29) GB



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Trade name: Methanol

Solvent resistant gloves.

· Measures for consumer protection Ensure adequate labelling.

· Environmental protection measures

• Water Do not allow to reach ground water, water bodies or sewage system.

• Disposal measures Ensure that waste is collected and contained.

· Disposal procedures

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· Waste type Partially emptied and uncleaned packaging

• Exposure estimation The exposure estimation was carried out in accordance with ECETOC TRA.

• Worker (oral) No significant oral exposure

• Worker (dermal) The calculated value is smaller than the DNEL.

• Worker (inhalation) The calculated value is smaller than the DNEL.

 $\cdot \textit{Environment} \textit{ No further relevant information available}.$ 

· Consumer No further relevant information available.

· Guidance for downstream users

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

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#### Annex: Exposure scenario 7

· Short title of the exposure scenario ES 7: Manufacture · Sector of Use SU8 Manufacture of bulk, large scale chemicals (including petroleum products) SU9 Manufacture of fine chemicals · Process category PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC15 Use as laboratory reagent • Environmental release category ERC1 Manufacture of the substance ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) ERC6a Use of intermediate ERC6b Use of reactive processing aid at industrial site (no inclusion into or onto article) · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. · Conditions of use • Duration and frequency 8hrs (full working shift). 5 workdays/week. · Physical parameters · Physical state liquid • Concentration of the substance in the mixture  $\leq 100 \%$ · Other operational conditions • Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting worker exposure Indoor application. Avoid contact with the skin. Do not breathe gas/vapour/aerosol. Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking. Covers use at ambient temperatures + max. 20 °C. • Other operational conditions affecting consumer exposure Oral absorption is not expected. • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Organisational protective measures Deploy only trained chemical workers. · Technical protective measures Provide explosion-proof electrical equipment.

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#### Trade name: Methanol

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Ensure that suitable extractors are available on processing machines.	
(not less than 3 - 5 air changes per hour)	
Clean transport lines before decoupling.	
Use enclosed means of conveyance.	
Personal protective measures	
Do not inhale gases / fumes / aerosols.	
Avoid contact with the skin.	
If all workplace limits are observed and good ventilation is ensured, no species	ial precautions necessary.
Solvent resistant gloves.	1
Measures for consumer protection Ensure adequate labelling.	
Environmental protection measures	
<i>Water Do not allow to reach ground water, water bodies or sewage system.</i>	
<b>Disposal measures</b> Ensure that waste is collected and contained.	
Disposal procedures	
Must not be disposed of together with household garbage. Do not allow proa	luct to reach sewage system.
Waste type Partially emptied and uncleaned packaging	<u> </u>
Exposure estimation The exposure estimation was carried out in accordance	e with ECETOC TRA.
Worker (oral) No significant oral exposure	
Worker (dermal) The calculated value is smaller than the DNEL.	
Worker (inhalation) The calculated value is smaller than the DNEL.	
<b>Environment</b> No further relevant information available.	
Consumer No further relevant information available.	
Guidance for downstream users	
Whether the downstream user uses the substance / the mixture within the sco	pe of the Exposure Scenario can
be determined by means of a technical assessment.	



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Trade name: Methanol

#### Annex: Exposure scenario 8

· Short title of the exposure scenario ES 8: Use in fuel - industrial • Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites · Process category PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC16 Use of fuels PROC19 Manual activities involving hand contact • Environmental release category ERC7 Use of functional fluid at industrial site · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. · Conditions of use · Duration and frequency 8hrs (full working shift). · Physical parameters · Physical state liquid • Concentration of the substance in the mixture  $\leq 100 \%$ · Other operational conditions • Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting worker exposure Avoid contact with the skin. Do not breathe gas/vapour/aerosol. Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking. Covers use at ambient temperatures + max. 20  $\degree$ C. • Other operational conditions affecting consumer exposure Oral absorption is not expected. • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Organisational protective measures Deploy only trained chemical workers. · Technical protective measures Provide explosion-proof electrical equipment. Ensure that suitable extractors are available on processing machines. Clean transport lines before decoupling. Use enclosed means of conveyance. *Empty and flush systems before commissioning or servicing equipment.* Personal protective measures Do not inhale gases / fumes / aerosols. Avoid contact with the skin. If all workplace limits are observed and good ventilation is ensured, no special precautions necessary. Solvent resistant gloves.

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Trade name: Methanol

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· Measures for consumer protection Ensure adequate labelling.
· Environmental protection measures
· Water Do not allow to reach ground water, water bodies or sewage system.
Disposal measures Ensure that waste is collected and contained.
· Disposal procedures
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· Waste type Partially emptied and uncleaned packaging
• Exposure estimation The exposure estimation was carried out in accordance with ECETOC TRA.
· Worker (oral) No significant oral exposure
· Worker (dermal) The calculated value is smaller than the DNEL.
• Worker (inhalation) The calculated value is smaller than the DNEL.
• Environment No further relevant information available.
• Consumer No further relevant information available.
Guidance for downstream users
Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can
be determined by means of a technical assessment.
For the risk assessment, the tools recommended by ECHA can be used.
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Trade name: Methanol

#### Annex: Exposure scenario 9

· Short title of the exposure scenario ES 9: Use in fuel - professional · Sector of Use SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen) · Process category PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC16 Use of fuels PROC19 Manual activities involving hand contact · Environmental release category ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor) ERC8e Widespread use of reactive processing aid (no inclusion into or onto article, outdoor) · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. · Conditions of use · Duration and frequency 8hrs (full working shift). • Worker Avoid activities involving exposure for more than 1 h. · Physical parameters · Physical state liquid • Concentration of the substance in the mixture  $\leq 100 \%$ · Other operational conditions • Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting worker exposure Avoid contact with the skin. Do not breathe gas/vapour/aerosol. Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking. Covers use at ambient temperatures + max. 20 °C. • Other operational conditions affecting consumer exposure Oral absorption is not expected. • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Technical protective measures Provide explosion-proof electrical equipment. Ensure that suitable extractors are available on processing machines. Clean transport lines before decoupling. Use enclosed means of conveyance. *Empty and flush systems before commissioning or servicing equipment.* Personal protective measures Do not inhale gases / fumes / aerosols. (Contd. on page 35)



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#### Trade name: Methanol

Avoid contact with the skin.

*If all workplace limits are observed and good ventilation is ensured, no special precautions necessary. Solvent resistant gloves.* 

· Measures for consumer protection Ensure adequate labelling.

· Environmental protection measures

· Water Do not allow to reach ground water, water bodies or sewage system.

• Disposal measures Ensure that waste is collected and contained.

· Disposal procedures

*Must not be disposed of together with household garbage. Do not allow product to reach sewage system.* • *Waste type Partially emptied and uncleaned packaging* 

• Exposure estimation The exposure estimation was carried out in accordance with ECETOC TRA.

• Worker (oral) No significant oral exposure

• Worker (dermal) The calculated value is smaller than the DNEL.

· Worker (inhalation) The calculated value is smaller than the DNEL.

· Environment No further relevant information available.

· Consumer No further relevant information available.

• Guidance for downstream users

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

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Trade name: Methanol

#### Annex: Exposure scenario 10

Short title of the exposure scenario ES 10: Use in detergents - industrial
Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
Process category
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with

equivalent containment conditions.

*PROC2* Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

*PROC3* Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC4 Chemical production where opportunity for exposure arises

PROC7 Industrial spraying

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC10 Roller application or brushing

PROC13 Treatment of articles by dipping and pouring

• Environmental release category

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

#### · Description of the activities / processes covered in the Exposure Scenario

See section 1 of the annex to the Safety Data Sheet.

· Conditions of use

· Duration and frequency 8hrs (full working shift).

· Physical parameters

· Physical state liquid

- Concentration of the substance in the mixture  $\leq 100 \%$
- Other operational conditions

• Other operational conditions affecting environmental exposure No special measures required.

• Other operational conditions affecting worker exposure

Avoid contact with the skin.

Do not breathe gas/vapour/aerosol.

Take precautionary measures against static discharge.

Keep away from sources of ignition - No smoking.

Covers use at ambient temperatures + max. 20 °C.

· Other operational conditions affecting consumer exposure Oral absorption is not expected.

• Other operational conditions affecting consumer exposure during the use of the product Not applicable.

· Risk management measures

· Worker protection

• Technical protective measures

Provide explosion-proof electrical equipment.

Ensure that suitable extractors are available on processing machines.

Clean transport lines before decoupling.

Use enclosed means of conveyance.

Empty and flush systems before commissioning or servicing equipment.

Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.



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(Contd. of page 36) If all workplace limits are observed and good ventilation is ensured, no special precautions necessary. Solvent resistant gloves. • Measures for consumer protection Ensure adequate labelling. • Environmental protection measures • Water Do not allow to reach ground water, water bodies or sewage system. • Disposal measures Ensure that waste is collected and contained. • Disposal procedures Must not be disposed of together with household garbage. Do not allow product to reach sewage system. • Waste type Partially emptied and uncleaned packaging • Exposure estimation The exposure estimation was carried out in accordance with ECETOC TRA. • Worker (oral) No significant oral exposure

• Worker (dermal) The calculated value is smaller than the DNEL.

• Worker (inhalation) The calculated value is smaller than the DNEL.

• Environment No further relevant information available.

• *Consumer* No further relevant information available.

· Guidance for downstream users

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

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Annex: Exposure scenario 11 · Short title of the exposure scenario ES 11: Laboratory reagent - industrial • Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites · Process category PROC10 Roller application or brushing PROC15 Use as laboratory reagent · Environmental release category ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. · Conditions of use · Duration and frequency 8hrs (full working shift). · Physical parameters · Physical state liquid • Concentration of the substance in the mixture  $\leq 100 \%$ · Other operational conditions • Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting worker exposure Avoid contact with the skin. Do not breathe gas/vapour/aerosol. Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking. Covers use at ambient temperatures + max. 20 °C. • Other operational conditions affecting consumer exposure Oral absorption is not expected. • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Technical protective measures Provide explosion-proof electrical equipment. Ensure that suitable extractors are available on processing machines. · Personal protective measures Do not inhale gases / fumes / aerosols. Avoid contact with the skin. If all workplace limits are observed and good ventilation is ensured, no special precautions necessary. Solvent resistant gloves. · Measures for consumer protection Ensure adequate labelling. · Environmental protection measures • Water Do not allow to reach ground water, water bodies or sewage system. • Disposal measures Ensure that waste is collected and contained. · Disposal procedures Must not be disposed of together with household garbage. Do not allow product to reach sewage system. · Waste type Partially emptied and uncleaned packaging • *Exposure estimation* The exposure estimation was carried out in accordance with ECETOC TRA. · Worker (oral) No significant oral exposure · Worker (dermal) The calculated value is smaller than the DNEL. • Worker (inhalation) The calculated value is smaller than the DNEL.

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· Environment No further relevant information available.

· Consumer No further relevant information available.

 $\cdot$  Guidance for downstream users

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

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Annex: Exposure scenario 12

· Short title of the exposure scenario ES 12: Laboratory reagent - professional · Sector of Use SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen) · Process category PROC10 Roller application or brushing PROC15 Use as laboratory reagent • Environmental release category ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. Conditions of use · Duration and frequency 8hrs (full working shift). · Physical parameters · Physical state liquid • Concentration of the substance in the mixture  $\leq 100 \%$ · Other operational conditions · Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting worker exposure Avoid contact with the skin. Do not breathe gas/vapour/aerosol. Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking. Covers use at ambient temperatures + max. 20 °C. • Other operational conditions affecting consumer exposure Oral absorption is not expected. • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Technical protective measures Provide explosion-proof electrical equipment. Ensure that suitable extractors are available on processing machines. · Personal protective measures Do not inhale gases / fumes / aerosols. Avoid contact with the skin. If all workplace limits are observed and good ventilation is ensured, no special precautions necessary. Solvent resistant gloves. · Measures for consumer protection Ensure adequate labelling. · Environmental protection measures • Water Do not allow to reach ground water, water bodies or sewage system. • Disposal measures Ensure that waste is collected and contained. · Disposal procedures Must not be disposed of together with household garbage. Do not allow product to reach sewage system. · Waste type Partially emptied and uncleaned packaging • *Exposure estimation* The exposure estimation was carried out in accordance with ECETOC TRA. · Worker (oral) No significant oral exposure • Worker (dermal) The calculated value is smaller than the DNEL.

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• Worker (inhalation) The calculated value is smaller than the DNEL.

 $\cdot \textit{Environment} \textit{ No further relevant information available}.$ 

 $\cdot \textit{Consumer No further relevant information available}.$ 

 $\cdot$  Guidance for downstream users

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

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#### Annex: Exposure scenario 13

· Short title of the exposure scenario ES 13: Use in oil and gas field drilling and production plants - industrial • Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites · Process category *PROC4* Chemical production where opportunity for exposure arises PROC5 Mixing or blending in batch processes PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities • Environmental release category ERC7 Use of functional fluid at industrial site · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. Conditions of use · Duration and frequency 8hrs (full working shift). • Worker Avoid activities involving exposure for more than 4 h. · Physical parameters · Physical state liquid • Concentration of the substance in the mixture ≤100% PROC 8a, 8b: ≤5 % · Other operational conditions • Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting worker exposure Avoid contact with the skin. Do not breathe gas/vapour/aerosol. Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking. Covers use at ambient temperatures + max. 20 °C. • Other operational conditions affecting consumer exposure Oral absorption is not expected. • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Organisational protective measures Ensure that activities are executed by specialists or authorised personnel only. • Technical protective measures Provide explosion-proof electrical equipment. Ensure that suitable extractors are available on processing machines. *Empty and flush systems before commissioning or servicing equipment.* · Personal protective measures Do not inhale gases / fumes / aerosols. Avoid contact with the skin. If all workplace limits are observed and good ventilation is ensured, no special precautions necessary. Solvent resistant gloves. · Measures for consumer protection Ensure adequate labelling. • Environmental protection measures • Water Do not allow to reach ground water, water bodies or sewage system. • **Disposal measures** Ensure that waste is collected and contained.

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· Disposal procedures

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Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

• Waste type Partially emptied and uncleaned packaging

• *Exposure estimation* The exposure estimation was carried out in accordance with ECETOC TRA.

 $\cdot$  Worker (oral) No significant oral exposure

• Worker (dermal) The calculated value is smaller than the DNEL.

• Worker (inhalation) The calculated value is smaller than the DNEL.

· Environment No further relevant information available.

• *Consumer* No further relevant information available.

• Guidance for downstream users

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

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Trade name: Methanol

#### Annex: Exposure scenario 14

• Short title of the exposure scenario ES 14: Use as wastewater treatment chemical - industrial

- Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites • Process category
- *PROC2* Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
- Environmental release category ERC7 Use of functional fluid at industrial site
- · Description of the activities / processes covered in the Exposure Scenario
- See section 1 of the annex to the Safety Data Sheet.
- · Conditions of use
- · Duration and frequency 8hrs (full working shift).
- · Worker Avoid activities involving exposure for more than 4 h.
- · Physical parameters
- · Physical state liquid
- · Concentration of the substance in the mixture  $\leq 100 \%$
- Other operational conditions
- · Other operational conditions affecting environmental exposure No special measures required.
- · Other operational conditions affecting worker exposure
- Avoid contact with the skin.
- Do not breathe gas/vapour/aerosol.
- Take precautionary measures against static discharge.
- Keep away from sources of ignition No smoking.
- Covers use at ambient temperatures + max. 20 °C.
- Other operational conditions affecting consumer exposure Oral absorption is not expected.
- Other operational conditions affecting consumer exposure during the use of the product Not applicable.
- · Risk management measures
- · Worker protection
- · Organisational protective measures
- Ensure that activities are executed by specialists or authorised personnel only.
- Technical protective measures
- Provide explosion-proof electrical equipment.
- Ensure that suitable extractors are available on processing machines.
- (not less than 10 15 air changes per hour)
- Empty and flush systems before commissioning or servicing equipment.
- Clean transport lines before decoupling.
- Use enclosed means of conveyance.
- · Personal protective measures
- Do not inhale gases / fumes / aerosols.
- Avoid contact with the skin.
- *If all workplace limits are observed and good ventilation is ensured, no special precautions necessary. Solvent resistant gloves.*
- · Measures for consumer protection Ensure adequate labelling.
- · Environmental protection measures
- · Water Do not allow to reach ground water, water bodies or sewage system.
- Disposal measures Ensure that waste is collected and contained.

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· Disposal procedures

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Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

• Waste type Partially emptied and uncleaned packaging

• *Exposure estimation* The exposure estimation was carried out in accordance with ECETOC TRA.

 $\cdot$  Worker (oral) No significant oral exposure

• Worker (dermal) The calculated value is smaller than the DNEL.

• Worker (inhalation) The calculated value is smaller than the DNEL.

· Environment No further relevant information available.

• *Consumer* No further relevant information available.

• Guidance for downstream users

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

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Trade name: Methanol

#### Annex: Exposure scenario 15

· Short title of the exposure scenario ES 15: Use in detergents - professional · Sector of Use SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen) · Process category PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC10 Roller application or brushing PROC11 Non industrial spraying PROC13 Treatment of articles by dipping and pouring · Environmental release category ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. · Conditions of use · Duration and frequency 8hrs (full working shift). • Worker Avoid activities involving exposure for more than 4 h. · Physical parameters · Physical state liquid • Concentration of the substance in the mixture ≤100% PROC 8a, 8b, 10, 11: ≤5 % · Other operational conditions • Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting worker exposure Avoid contact with the skin. Do not breathe gas/vapour/aerosol. Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking. Covers use at ambient temperatures + max. 20 °C. • Other operational conditions affecting consumer exposure Oral absorption is not expected. • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection • Technical protective measures Provide explosion-proof electrical equipment. *Ensure that suitable extractors are available on processing machines.* (Contd. on page 47)

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· Personal protective measures Do not inhale gases / fumes / aerosols. Avoid contact with the skin. If all workplace limits are observed and good ventilation is ensured, no special precautions necessary. Solvent resistant gloves. • Measures for consumer protection Ensure adequate labelling. • Environmental protection measures · Water Do not allow to reach ground water, water bodies or sewage system. • Disposal measures Ensure that waste is collected and contained. · Disposal procedures Must not be disposed of together with household garbage. Do not allow product to reach sewage system. · Waste type Partially emptied and uncleaned packaging • Exposure estimation The exposure estimation was carried out in accordance with ECETOC TRA. · Worker (oral) No significant oral exposure · Worker (dermal) The calculated value is smaller than the DNEL. · Worker (inhalation) The calculated value is smaller than the DNEL. · Environment No further relevant information available. · Consumer No further relevant information available. • Guidance for downstream users Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can

be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.