

Trade name: Methanol

Current version : 3.0.1, issued: 28.02.2024

Replaced version: 3.0.0, issued: 30.01.2024

Region: GB

SECTION 1: Title and scope of exposure scenario (ES)

1.1 Title exposure scenario (ES)

ES10 Use as a laboratory reagent - use in industrial settings

1.2 Scope of exposure scenario (ES)

ES Type Worker Exposure Scenario for substance/mixture

Life cycle stage Industrial end use

Product identifier

Trade name Methanol

Substance name methanol

REACH registration no. 01-2119433307-44

CAS no. 67-56-1

EC no. 200-659-6

Use descriptors

Sector of use (SU)		
Category	Code	Use description
Main user group	SU3	Industrial uses
Environmental release category (ERC)		
Category	Code	Use description
Environmental release category (ERC)	ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
Process category (PROC)		
Category	Code	Use description
Process category (PROC)	PROC10	Roller application or brushing
	PROC15	Use as laboratory reagent

SECTION 2: Operational conditions (OC) and risk management measures (RMM) controlling exposure towards environment and men

2.1 Product characteristics

State of aggregation	
liquid	
Reference temperature	25 °C
Dustiness	
Not applicable	
Vapour pressure	
Value	169.27 hPa
Reference temperature	25 °C
Other information	
The efficiency of a risk management measure is a theoretical value. The efficiency describes to which extend (in percent) the calculated exposure can be diminished by applying a certain measure. If the described operational conditions and risk management measures are fulfilled by a downstream user, the efficiency as highlighted in the ES can be applied. A downstream user might check whether the efficiency of the LEV or general ventilation corresponds to his site.	
For further instructions related to "Personal protective equipment" please refer to section 8 of the Safety Data Sheet.	

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2.2 Contributing scenario controlling environmental exposure

Affected environmental release category (ERC)		
Category	Code	Use description
Environmental release category (ERC)	ERC4	Industrial use of processing aids in processes and products, not becoming part of articles

Risk management measures (RMM) controlling environmental exposure

Technical measures and efficiency of the risk management measures (in exposure calculation model)
No special measures are required.

Organisational measures
No special measures are required.

Measures related to wastewater treatment and efficiency of the risk management measures (in exposure calculation model)
No special measures are required.

Measures related to waste treatment
For further instructions related to waste management please refer to section 13 of the Safety Data Sheet.

Further measures	
ERC4	No special measures are required.

2.3 Contributing scenario controlling worker exposure

Affected process category (PROC)		
Category	Code	Use description
Process category (PROC)	PROC10	Roller application or brushing
	PROC15	Use as laboratory reagent

Operational conditions controlling worker exposure

Concentration of substance				
	PROC10		PROC15	
Value	≤ 80	%	≤ 100	%

Amounts used				
	PROC10		PROC15	
	Not relevant		Not relevant	

Use conditions				
	PROC10		PROC15	
Location of use	Indoor use		Indoor use	
Duration of use	≤ 8	hours/day	≤ 8	hours/day
Frequency of use	≤ 240	days/year	≤ 240	days/year

Risk management measures (RMM) controlling worker exposure

Technical measures and efficiency of the risk management measures (in exposure calculation model)		
PROC10	Measures	Handle only at a place with local exhaust system (or another appropriate exhaust).
	Efficiency (%)	90
PROC15	Measures	Handle only at a place with local exhaust system (or another appropriate exhaust).
	Efficiency (%)	90

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Organisational measures	
No special measures are required.	

Personal protective equipment and efficiency of the risk management measures (in exposure calculation model)

Hand protection		
PROC10	Measures	Wear suitable gloves tested to EN374.
	Efficiency (%)	80
PROC15	Measures	Wear suitable gloves tested to EN374.
	Efficiency (%)	80

SECTION 3: Exposure estimation and reference to sources

3.1 Advice

The Risk Characterization Ratio (RCR) is the quotient of predicted human/environmental exposure and the related DNEL/PNEC. Exposure is calculated based on exposure models as stated below. If $RCR \leq 1$ a use is considered as safe under operational conditions and risk management measures as specified in the exposure szenario.

For DNEL/PNEC values please refer to section 8 of the safety data sheet.

3.2 Exposure estimation - Environment

Affected environmental release category (ERC)		
Category	Code	Use description
Environmental release category (ERC)	ERC4	Industrial use of processing aids in processes and products, not becoming part of articles

Used exposure estimation model for calculation of environmental exposure	
Used exposure estimation model	As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.3 Exposure estimation - Worker

Affected process category (PROC)		
Category	Code	Use description
Process category (PROC)	PROC10	Roller application or brushing
	PROC15	Use as laboratory reagent

Used exposure estimation model for calculation of worker exposure	
Used exposure estimation model	EasyTRA Version 3.0
Link to exposure estimation tool	EASY TRA: http://www.easytra.de

Risk characterisation ratio (RCR)				
	Exposure estimation	inhalative	dermal	total
PROC10	Long-term systemic	0.102	0.110	0.212
	Short-term systemic	0.205	0.110	0.315
PROC15	Long-term systemic	0.025	0.002	0.027
	Short-term systemic	0.051	0.002	0.053

SECTION 4: Guidance to DU to evaluate whether he works inside the boundaries set by the ES

4.1 Recommendations and advice

Recommendations and general advice

- For additional instructions relating to adaptation of conditions of use in view of a scaling, pls. see the "ECHA Guidance for downstream users" <http://echa.europa.eu/regulations/reach/downstream-users>

If a downstream user uses the substance/preparation differently than stated in the ES (different operational conditions and/or risk management measures), he has the possibility to vary certain parameters of the exposure assessment.

With the help of easy calculations he can check whether he still operates under safe circumstances. This process is called Scaling.

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Scaling advice

Type of ventilation

If the type of ventilation at the use site of a downstream user (DU) differs from the instructions in the ES, a linear correlation between the RCR (Inhalation) and the type of ventilation exists. Following scaling factors (f) apply: General ventilation (< 3 air changes per hour) = 1; good general ventilation (3 to 5 air changes per hour, corresponds to outdoor use) = 0,7; enhanced general ventilation (> 5 air changes per hour) = 0,3.

$RCR (DU) = f(DU) * RCR (as\ stated\ in\ ES) / f (type\ of\ ventilation\ stated\ in\ ES)$

In the same manner a scaling for the efficiency of the local extract ventilation (LEV) can be applied.

Duration of use

If the duration of the use by a worker at a downstream user (DU) site differs from the instructions in the ES, a linear correlation between the RCR (Inhalation) and the duration of use exist. Following scaling factors (f) apply: duration > 4 hours/day = 1; duration: 1-4 hours/day = 0,6; duration: 15 min/day – 1 hour/day = 0,2; duration < 15 min/day = 0,1.

$RCR (DU) = f(DU) * RCR (as\ stated\ in\ ES) / f (duration\ in\ ES)$

Concentration of the substance in the product

If the downstream user (DU) uses the substance in a different concentration than the one stated in the ES, a linear correlation between the RCR (Inhalation) and the RCR (dermal) and the concentration exists. Following scaling factors (f) apply: Concentration >25% = 1; concentration >= 5% = 0,6; concentration >= 1% = 0,2; concentration < 1% = 0,1.

$RCR (DU) = f(DU) * RCR (as\ stated\ in\ ES) / f (concentration\ in\ ES)$.

4.2 Exposure estimation - Environment

Used exposure estimation model for calculation of environmental exposure

Used exposure estimation model	As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
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4.3 Exposure estimation - Worker

Used exposure estimation model for calculation of worker exposure

Used exposure estimation model	EasyTRA Version 3.0
Link to exposure estimation tool	EASY TRA: http://www.easytra.de