



Safety Data Sheet

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

Methanol

Version number: 2.0
Replaces version of: 2018-03-29 (1)

Revision: 2022-04-05
First version: 2018-03-29

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

1.1 Product identifier

Identification of the substance	methanol
Trade name	<u>Methanol</u>
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	Chemicals for synthesis Solvents
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1.3 Details of the supplier of the safety data sheet

Atlantic Methanol Services B.V. Zuidplein 126, WTC Tower H, 15th Floor 1077XV Amsterdam Netherlands	Telephone: +31 20 240 3080 Website: www.atlanticmethanol.com
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1.4 Emergency telephone number

Emergency information service	24/7 ER contact number: +32 3 575 55 55 (SGS Emergency Response on behalf of Atlantic Methanol Company)
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Poison centre		
Country	Name	Telephone
-	SGS Emergency Response	+32 3 575 55 55

As above or nearest toxicological information centre.

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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 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

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.

P233 Keep container tightly closed.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P243 Take action to prevent static discharges.

P261 Avoid breathing vapours.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

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Precautionary statements

- P303+P361+P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- P304+P340** IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P405** Store locked up.
- P501** Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional labelling requirements see section 15 of the safety data sheet

2.3 Other hazards

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

3.1 Substances

Name of substance	methanol
Identifiers	
CAS No	67-56-1
EC No	200-659-6
Index No	603-001-00-X
Molecular formula	CH ₄ O
Molar mass	32.04 g/mol

concentration limit, M-factor, ATE

Specific Conc. Limits	M-Factors	ATE	Exposure route
STOT SE 1; H370: C ≥ 10 % STOT SE 2; H371: 3 % ≤ C < 10 %	-	100 mg/kg 300 mg/kg 3 mg/4h	oral dermal inhalation: vapour

SECTION 4: First aid measures

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.

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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.

Headache.

Drowsiness.

Nausea.

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)

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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

wear self-contained 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

In case of formation of gases/vapours/mists suppress with water spray
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

Advice 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

Handle and open container with care.

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 feeding stuffs.

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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.

Specific designs for storage rooms or vessels

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

Keep cool.

Store in a dry place.

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)									
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	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)

Human health values

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

8.2 Exposure controls

Appropriate engineering controls

Use local and general ventilation.

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Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Hand protection

Protective gloves		
Material	Material thickness	Breakthrough times of the glove material
IIR: isobutene-isoprene (butyl) rubber	≥ 0,8 mm	>480 minutes (permeation: level 6)
FKM: fluoro-elastomer	≥ 0,4 mm	>240 minutes (permeation: level 5)

Wear suitable gloves.

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

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.

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

Physical state	liquid
Colour	colourless
Odour	alcohol-like
Odour threshold	10 – 20,000 ppm
Melting point/freezing point	-97.8 °C
Boiling point or initial boiling point and boiling range	64.7 °C at 1,013 hPa
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	5.5 vol% - 44 vol%
Flash point	9.7 °C at 101,325 Pa
Auto-ignition temperature	420 °C at 101,325 Pa
Decomposition temperature	not relevant

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pH (value)	not determined
Kinematic viscosity	not determined
Dynamic viscosity	0.544 – 0.59 mPa s at 25 °C
Solubility(ies)	
Water solubility	miscible in any proportion
Partition coefficient n-octanol/water (log value)	-0.77
Vapour pressure	169.3 hPa at 25 °C
Density and/or relative density	
Density	0.79 g/cm ³ at 20 °C
Relative density / Relative vapour density	1.1 (air = 1)
Particle characteristics	not relevant (liquid)
9.2 Other information	
Information with regard to physical hazard classes	there is no additional information
Other safety characteristics	
Surface tension	22.6 mN/m (20 °C)
Refractive index	1.336 (20 °C)
Temperature class (EU, acc. to ATEX)	T1 (maximum permissible surface temperature on the equipment: 450°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

If heated:

risk of ignition

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

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 hazard classes as defined in Regulation (EC) No 1272/2008

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.

Exposure route	Endpoint	Value	Species	Source
oral	LD50	>1,187 – 2,769 mg/kg	rat	ECHA
dermal	LD50	17,100 mg/kg	rabbit	ECHA

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.

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Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Classification could not be established because:

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

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

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.

11.2 Information on other hazards

Endocrine disrupting properties

Not listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

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

Endpoint	Exposure time	Value	Species	Method	Source
LC50	96 h	15,400 mg/l	bluegill (<i>Lepomis macrochirus</i>)	EPA-660/3-75-009	ECHA
EC50	96 h	12,700 mg/l	bluegill (<i>Lepomis macrochirus</i>)	EPA-660/3-75-009	ECHA
EC50	96 h	18,260 mg/l	daphnia magna	OECD Guideline 202	ECHA
ErC50	96 h	~22,000 mg/l	algae (<i>pseudokirchneriella subcapitata</i>)	OECD Guideline 201	ECHA

Aquatic toxicity (chronic)

No data available.

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12.2 Persistence and degradability

Process of degradability			
Process	Degradation rate	Time	Source
oxygen depletion	95 %	20 d	ECHA

Biodegradation

The substance is readily biodegradable.

Persistence

No data available.

12.3 Bioaccumulative potential

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

12.4 Mobility in soil

No data available.

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 Endocrine disrupting properties

Not listed.

12.7 Other adverse effects

Data are not available.

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

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.

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SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID	UN1230
IMDG-Code	UN1230
ICAO-TI	UN1230

14.2 UN proper shipping name

ADR/RID	METHANOL
IMDG-Code	METHANOL
ICAO-TI	Methanol

14.3 Transport hazard class(es)

ADR/RID	3 (6.1)
IMDG-Code	3 (6.1)
ICAO-TI	3 (6.1)

14.4 Packing group

ADR/RID	II
IMDG-Code	II
ICAO-TI	II

14.5 Environmental hazards

-


14.6 Special precautions for user

-

14.7 Maritime transport in bulk according to IMO - instruments

14.8 Information for each of the UN Model Regulations



Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) Additional information

Particulars in the transport document	UN1230, METHANOL, 3 (6.1), II, (D/E)
Classification code	FT1
Danger label(s)	3+6.1
	
Special provisions (SP)	279, 802(ADN)
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L

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Transport category (TC)	2
Tunnel restriction code (TRC)	D/E
Hazard identification No	336
Emergency Action Code	2WE

International Maritime Dangerous Goods Code (IMDG) Additional information

Marine pollutant	-
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) Additional information

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

Name	Name acc. to inventory	CAS No	Restriction
methanol	methanol	67-56-1	R69
methanol	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC	-	R3
methanol	flammable / pyrophoric	-	R40
methanol	substances in tattoo inks and permanent make-up	-	R75

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- 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 ashtrays,
 - 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 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 Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
 - (a) lamp oils, labelled with 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 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 fluid may lead to life threatening lung damage';
 - (c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.;
- 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.

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- R75 1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such substances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or are present in the following circumstances:
- (a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
 - (b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
 - (c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser category 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
 - (d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2, the substance is present in the mixture in a concentration equal to or greater than:
 - (i) 0,1 % by weight, if the substance is used solely as a pH regulator;
 - (ii) 0,01 % by weight, in all other cases;
 - (e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
 - (f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight:
 - (i) "Rinse-off products";
 - (ii) "Not to be used in products applied on mucous membranes";
 - (iii) "Not to be used in eye products";
 - (g) in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column;
 - (h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance in that Appendix.
2. For the purposes of this entry use of a mixture "for tattooing purposes" means injection or introduction of the mixture into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures commonly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.
3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appendix 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (h) of paragraph 1 shall apply to that substance.
4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023:
- (a) Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8);
 - (b) Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).
5. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a substance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of application of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.
6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made.
7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the mixture is marked with the following information:
- (a) the statement "Mixture for use in tattoos or permanent make-up";

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- (b) a reference number to uniquely identify the batch;
- (c) the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;
- (d) the additional statement "pH regulator" for substances falling under point (d)(i) of paragraph 1;
- (e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;
- (f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;
- (g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.

The information shall be clearly visible, easily legible and marked in a way that is indelible.

The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise.

Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use.

Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this paragraph.

8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.

9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

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	-

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

Not listed.

Methanol

Regulation on the marketing and use of explosives precursors

Not listed.

Regulation on substances that deplete the ozone layer (ODS)

Not listed.

Regulation concerning the export and import of hazardous chemicals (PIC)

Not listed.

Regulation on persistent organic pollutants (POP)

Not listed.

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)

Section	Former entry (text/value)	Actual entry (text/value)
1.1	-	Identification of the substance: methanol
1.2	Relevant identified uses: General use	Relevant identified uses: Chemicals for synthesis Solvents
2.1	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.	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	-	Precautionary statements: change in the listing (table)
3.1	Molecular formula: CH ₄ O	-
3.1	Molar mass: 32.04 g/mol	-
3.1	-	Molecular formula: CH ₄ O
3.1	-	Molar mass: 32.04 g/mol
3.1	-	concentration limit, M-factor, ATE
3.1	-	concentration limit, M-factor, ATE: change in the listing (table)

Methanol

Section	Former entry (text/value)	Actual entry (text/value)
8.1	-	Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)
8.1	-	Relevant DNELs and other threshold levels: change in the listing (table)
8.1	Environmental values	-
8.1	-	Relevant PNECs and other threshold levels: change in the listing (table)
8.2	-	Hand protection: change in the listing (table)
8.2	-	Protective gloves: change in the listing (table)
14.1	UN number: 1230	UN number or ID number
14.1	-	ADR/RID: UN1230
14.1	-	IMDG-Code: UN1230
14.1	-	ICAO-TI: UN1230
14.2	UN proper shipping name: METHANOL	UN proper shipping name
14.2	-	ADR/RID: METHANOL
14.2	-	IMDG-Code: METHANOL
14.2	-	ICAO-TI: Methanol
14.3	Class: 3	-
14.3	Subsidiary risk(s): 6.1 (acute toxicity)	-
14.3	-	ADR/RID: 3 (6.1)
14.3	-	IMDG-Code: 3 (6.1)
14.3	-	ICAO-TI: 3 (6.1)
14.4	Packing group: II	Packing group

Methanol

Section	Former entry (text/value)	Actual entry (text/value)
14.4	-	ADR/RID: II
14.4	-	IMDG-Code: II
14.4	-	ICAO-TI: II
14.5	Environmental hazards: non-environmentally hazardous acc. to the dangerous goods regulations	Environmental hazards: -
14.6	Special precautions for user: Provisions for dangerous goods (ADR) should be complied within the premises.	Special precautions for user: -
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.	Maritime transport in bulk according to IMO instruments: -
14.8	UN number: 1230	-
14.8	Proper shipping name: UN1230, METHANOL, 3 (6.1), II, (D/E)	-
14.8	Class: 3	-
14.8	Packing group: II	-
14.8	-	Particulars in the transport document: UN1230, METHANOL, 3 (6.1), II, (D/E)
14.8	UN number: 1230	-
14.8	Proper shipping name: UN1230, METHANOL, 3 (6.1), II, 9.7°C c.c.	-
14.8	Class: 3	-
14.8	Subsidiary risk(s): 6.1	-
14.8	Packing group: II	-
14.8	UN number: 1230	-
14.8	Proper shipping name: UN1230, Methanol, 3 (6.1), II	-
14.8	Class: 3	-

Methanol

Section	Former entry (text/value)	Actual entry (text/value)
14.8	Subsidiary risk(s): 6.1	-
14.8	Packing group: II	-
15.1	-	Restrictions according to REACH, Annex XVII: change in the listing (table)

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
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
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)
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 (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
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
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air

Methanol

Abbr.	Descriptions of used abbreviations
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	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
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
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).

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID).

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 section 2 and 3)

Code	Text
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.

Methanol

Code	Text
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.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

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Exposure Scenario / ES No 1 - Formulation [mixing] of preparations and/or re-packaging (excluding alloys)/ Distribution of substance - Industrial use

1 TITLE SECTION

Exposure Scenario name: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)/ Distribution of substance - Industrial use

Environmental release categories [ERC]

ERC2: Formulation into mixture.

Process categories [PROC]

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.

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.

PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing).

PROC15: Use as laboratory reagent.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

ERC2: Formulation into mixture.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

Product characteristics

Physical form of product

Liquid

Concentration of substance in product

Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to

>4 h/day

Use frequency

5 days per week



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Other conditions affecting workers exposure

Area of use Indoor use
Main user group Industrial use

Exposed skin surface assumed:

240 cm².

2.3 Process categories [PROC]

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

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Industrial use

Exposed skin surface assumed:

480 cm².

2.4 Process categories [PROC]

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

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.



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Other conditions affecting workers exposure

Area of use Indoor use
Main user group Industrial use

Exposed skin surface assumed:

240 cm².

2.5 Process categories [PROC]

PROC4: Chemical production where opportunity for exposure arises.

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Industrial use

Exposed skin surface assumed:

480 cm².

2.6 Process categories [PROC]

PROC5: Mixing or blending in batch processes.

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Industrial use



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Exposed skin surface assumed:

480 cm².

2.7 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

960 cm².

2.8 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 95 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

960 cm².



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2.9 Process categories [PROC]

PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing).

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

480 cm².

2.10 Process categories [PROC]

PROC15: Use as laboratory reagent.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

240 cm².



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3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

ERC2: Formulation into mixture

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.013351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000103
Exposure route	combined routes
Exposure level	0.036193 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001817
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.053403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000411
Exposure route	combined routes



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Exposure level	0.041915 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.002125

3.3 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	3.338 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.025675

Exposure route	combined routes
Exposure level	0.7511 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.039389

Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698

Exposure route	combined routes
Exposure level	2.182 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.116413

3.4 Process categories [PROC]

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

Exposure route	dermal
-----------------------	--------



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Methanol

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Issue date: 2022-03-22

Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	6.675 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.051349
Exposure route	combined routes
Exposure level	1.091 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.058206
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	26.702 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.205397
Exposure route	combined routes
Exposure level	3.952 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.212254

3.5 Process categories [PROC]

PROC4: Chemical production where opportunity for exposure arises

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	1.371 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.068571
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term



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Issue date: 2022-03-22

Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	3.279 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.17127
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	1.371 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.068571
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	53.403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.410794
Exposure route	combined routes
Exposure level	9 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.479365

3.6 Process categories [PROC]

PROC5: Mixing or blending in batch processes

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes



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Exposure level	7.511 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.393889
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	4.65 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.239841

3.7 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes
Exposure level	7.511 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.393889
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.743 mg/kg bw/day



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	66.754 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.513492
Exposure route	combined routes
Exposure level	12.279 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.650635

3.8 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	10.013 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.077024
Exposure route	combined routes
Exposure level	4.173 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.214167
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	20.026 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.154048



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure route	combined routes
Exposure level	5.604 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.29119

3.9 Process categories [PROC]

PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	1.371 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.068571

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	26.702 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.205397

Exposure route	combined routes
Exposure level	5.186 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.273968

Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	1.371 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.068571

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	53.403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.410794

Exposure route	combined routes
Exposure level	9 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.479365

3.10 Process categories [PROC]

PROC15: Use as laboratory reagent



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.068571 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.003429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	6.675 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.051349
Exposure route	combined routes
Exposure level	1.022 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.054778
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.068571 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.003429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	1.976 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.106127

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

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure Scenario / ES No 2 - Use as an intermediate - Industrial use

1 TITLE SECTION

Exposure Scenario name: Use as an intermediate - Industrial use

Environmental release categories [ERC]

ERC6a: Use of intermediate.

Process categories [PROC]

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.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

ERC6a: Use of intermediate.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

Product characteristics

Physical form of product Liquid

Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to >4 h/day

Use frequency 5 days per week

Other conditions affecting workers exposure

Area of use Indoor use

Main user group Industrial use

Exposed skin surface assumed:

240 cm².



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

2.3 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

480 cm².

2.4 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

240 cm².

2.5 Process categories [PROC]

PROC4: Chemical production where opportunity for exposure arises.



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

480 cm².

2.6 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

960 cm².

2.7 Process categories [PROC]

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



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 95 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

960 cm².

2.9 Process categories [PROC]

PROC15: Use as laboratory reagent.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

240 cm².



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

ERC6a: Use of intermediate

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.013351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000103
Exposure route	combined routes
Exposure level	0.036193 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001817
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.053403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000411
Exposure route	combined routes



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Issue date: 2022-03-22

Exposure level	0.041915 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.002125

3.3 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	3.338 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.025675

Exposure route	combined routes
Exposure level	0.7511 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.039389

Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698

Exposure route	combined routes
Exposure level	2.182 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.116413

3.4 Process categories [PROC]

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

Exposure route	dermal
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Methanol

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Issue date: 2022-03-22

Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	6.675 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.051349
Exposure route	combined routes
Exposure level	1.091 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.058206
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	26.702 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.205397
Exposure route	combined routes
Exposure level	3.952 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.212254

3.5 Process categories [PROC]

PROC4: Chemical production where opportunity for exposure arises

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	1.371 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.068571
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term



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Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	3.279 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.17127
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	1.371 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.068571
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	53.403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.410794
Exposure route	combined routes
Exposure level	9 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.479365

3.6 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes



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Issue date: 2022-03-22

Exposure level	7.511 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.393889
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	66.754 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.513492
Exposure route	combined routes
Exposure level	12.279 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.650635

3.7 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	10.013 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.077024
Exposure route	combined routes
Exposure level	4.173 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.214167
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA



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Methanol

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Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	20.026 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.154048
Exposure route	combined routes
Exposure level	5.604 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.29119

3.8 Process categories [PROC]

PROC15: Use as laboratory reagent

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.068571 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.003429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	6.675 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.051349
Exposure route	combined routes
Exposure level	1.022 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.054778
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.068571 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.003429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes



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Issue date: 2022-03-22

Exposure level	1.976 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.106127

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

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure Scenario / ES No 3 - Use in process chemicals/ Distribution of substance - Industrial use

1 TITLE SECTION

Exposure Scenario name: Use in process chemicals/ Distribution of substance - Industrial use

Environmental release categories [ERC]

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

Process categories [PROC]

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.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

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

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

Product characteristics

Physical form of product

Liquid

Concentration of substance in product

Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to

>4 h/day

Use frequency

5 days per week

Other conditions affecting workers exposure

Area of use

Indoor use

Main user group

Industrial use



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposed skin surface assumed:

240 cm².

2.3 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

480 cm².

2.4 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposed skin surface assumed:

240 cm².

2.5 Process categories [PROC]

PROC4: Chemical production where opportunity for exposure arises.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

480 cm².

2.6 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

960 cm².



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

2.7 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 95 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

960 cm².

2.8 Process categories [PROC]

PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing).

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

480 cm².

2.9 Process categories [PROC]

PROC15: Use as laboratory reagent.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

240 cm².

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

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

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.013351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000103
Exposure route	combined routes



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure level	0.036193 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001817
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.053403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000411
Exposure route	combined routes
Exposure level	0.041915 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.002125

3.3 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	3.338 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.025675
Exposure route	combined routes
Exposure level	0.7511 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.039389
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.274286 mg/kg bw/day



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	2.182 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.116413

3.4 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	6.675 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.051349
Exposure route	combined routes
Exposure level	1.091 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.058206
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	26.702 mg/m ³
Calculation method	EasyTRA



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Risk Characterization Ratio (RCR)	0.205397
Exposure route	combined routes
Exposure level	3.952 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.212254

3.5 Process categories [PROC]

PROC4: Chemical production where opportunity for exposure arises

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	1.371 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.068571
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	3.279 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.17127
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	1.371 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.068571
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	53.403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.410794
Exposure route	combined routes
Exposure level	9 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.479365



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

3.6 Process categories [PROC]

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

Exposure route dermal
 Health effect systemic
 Exposure indicator long-term
 Exposure level 2.743 mg/kg bw/day
 Calculation method EasyTRA
 Risk Characterization Ratio (RCR) 0.137143

Exposure route Inhalation
 Health effect systemic
 Exposure indicator long-term
 Exposure level 33.377 mg/m³
 Calculation method EasyTRA
 Risk Characterization Ratio (RCR) 0.256746

Exposure route combined routes
 Exposure level 7.511 mg/kg bw/day
 Calculation method EasyTRA
 Risk Characterization Ratio (RCR) 0.393889

Exposure route dermal
 Health effect systemic
 Exposure indicator short-term
 Exposure level 2.743 mg/kg bw/day
 Calculation method EasyTRA
 Risk Characterization Ratio (RCR) 0.137143

Exposure route Inhalation
 Health effect systemic
 Exposure indicator short-term
 Exposure level 66.754 mg/m³
 Calculation method EasyTRA
 Risk Characterization Ratio (RCR) 0.513492

Exposure route combined routes
 Exposure level 12.279 mg/kg bw/day
 Calculation method EasyTRA
 Risk Characterization Ratio (RCR) 0.650635

3.7 Process categories [PROC]

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

Exposure route dermal
 Health effect systemic
 Exposure indicator long-term
 Exposure level 2.743 mg/kg bw/day



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	10.013 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.077024
Exposure route	combined routes
Exposure level	4.173 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.214167
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	20.026 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.154048
Exposure route	combined routes
Exposure level	5.604 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.29119

3.8 Process categories [PROC]

PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	1.371 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.068571
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	26.702 mg/m ³
Calculation method	EasyTRA



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Risk Characterization Ratio (RCR)	0.205397
Exposure route	combined routes
Exposure level	5.186 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.273968
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	1.371 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.068571
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	53.403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.410794
Exposure route	combined routes
Exposure level	9 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.479365

3.9 Process categories [PROC]

PROC15: Use as laboratory reagent

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.068571 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.003429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	6.675 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.051349
Exposure route	combined routes



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure level	1.022 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.054778
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.068571 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.003429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	1.976 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.106127

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

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure Scenario / ES No 4 - Use as a fuel - Industrial use

1 TITLE SECTION

Exposure Scenario name: Use as a fuel - Industrial use

Environmental release categories [ERC]

ERC7: Industrial use of substances in closed systems.

Process categories [PROC]

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.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

ERC7: Industrial use of substances in closed systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

Product characteristics

Physical form of product Liquid

Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to >4 h/day

Use frequency 5 days per week

Other conditions affecting workers exposure

Area of use Indoor use

Main user group Industrial use

Exposed skin surface assumed:

240 cm².



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

2.3 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

480 cm².

2.4 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

240 cm².

2.5 Process categories [PROC]

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



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

960 cm².

2.6 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 95 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

960 cm².



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

2.7 Process categories [PROC]

PROC16: Use of fuels.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 25 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

240 cm².

2.8 Process categories [PROC]

PROC19: Manual activities involving hand contact.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers concentrations up to 10 %

Frequency, Duration

Covers use up to	<=4 h/day
Use frequency	5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

1980 cm².

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

ERC7: Industrial use of substances in closed systems

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

3.2 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.013351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000103
Exposure route	combined routes
Exposure level	0.036193 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001817
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.053403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000411
Exposure route	combined routes
Exposure level	0.041915 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.002125

3.3 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	3.338 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.025675
Exposure route	combined routes
Exposure level	0.7511 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.039389
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	2.182 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.116413

3.4 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	6.675 mg/m ³



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.051349
Exposure route	combined routes
Exposure level	1.091 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.058206
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	26.702 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.205397
Exposure route	combined routes
Exposure level	3.952 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.212254

3.5 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure level	7.511 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.393889
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	66.754 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.513492
Exposure route	combined routes
Exposure level	12.279 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.650635

3.6 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	10.013 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.077024
Exposure route	combined routes
Exposure level	4.173 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.214167
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	20.026 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.154048
Exposure route	combined routes
Exposure level	5.604 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.29119

3.7 Process categories [PROC]

PROC16: Use of fuels

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.068571 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.003429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes
Exposure level	4.837 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.260175
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.041143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.002057
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	80.105 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.61619
Exposure route	combined routes



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure level	11.485 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.618248

3.8 Process categories [PROC]

PROC19: Manual activities involving hand contact

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	1.697 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.084857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	20.026 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.154048
Exposure route	combined routes
Exposure level	4.558 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.238905
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	1.697 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.084857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	66.754 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.513492
Exposure route	combined routes
Exposure level	11.233 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.598349



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

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

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure Scenario / ES No 5 - Use in cleaning agents - Industrial use

1 TITLE SECTION

Exposure Scenario name: Use in cleaning agents - Industrial use

Environmental release categories [ERC]

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

Process categories [PROC]

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.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

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

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

Product characteristics

Physical form of product

Liquid

Concentration of substance in product

Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to

>4 h/day

Use frequency

5 days per week

Other conditions affecting workers exposure

Area of use

Indoor use

Main user group

Industrial use



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposed skin surface assumed:

240 cm².

2.3 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

480 cm².

2.4 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use



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Exposed skin surface assumed:

240 cm².

2.5 Process categories [PROC]

PROC4: Chemical production where opportunity for exposure arises.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

480 cm².

2.6 Process categories [PROC]

PROC7: Industrial spraying.

Product characteristics

Concentration of substance in product	Covers percentage substance in the product up to 25 %.
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Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.
Wear suitable respiratory protection. Inhalation - minimum efficiency of 90 %.
Assumes a good basic standard of occupational hygiene is implemented.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

1500 cm².

2.7 Process categories [PROC]

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



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Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

960 cm².

2.8 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 95 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

960 cm².



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2.9 Process categories [PROC]

PROC10: Roller application or brushing.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers concentrations up to 80 %

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

960 cm².

2.10 Process categories [PROC]

PROC13 Treatment of articles by dipping and pouring.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

480 cm².



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Issue date: 2022-03-22

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

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

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.013351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000103
Exposure route	combined routes
Exposure level	0.036193 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001817
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.053403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000411
Exposure route	combined routes



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Exposure level	0.041915 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.002125

3.3 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	3.338 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.025675

Exposure route	combined routes
Exposure level	0.7511 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.039389

Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698

Exposure route	combined routes
Exposure level	2.182 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.116413

3.4 Process categories [PROC]

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

Exposure route	dermal
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Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	6.675 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.051349
Exposure route	combined routes
Exposure level	1.091 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.058206
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	26.702 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.205397
Exposure route	combined routes
Exposure level	3.952 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.212254

3.5 Process categories [PROC]

PROC4: Chemical production where opportunity for exposure arises

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	1.371 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.068571
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term



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Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	3.279 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.17127
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	1.371 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.068571
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	53.403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.410794
Exposure route	combined routes
Exposure level	9 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.479365

3.6 Process categories [PROC]

PROC7: Industrial spraying

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	2.143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.107143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	19.14 mg/m ³
Calculation method	EasyTRA Stoffenmanager 8
Risk Characterization Ratio (RCR)	0.147231
Exposure route	combined routes



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Exposure level	4.877 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.254374
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.107143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	19.14 mg/m ³
Calculation method	EasyTRA Stoffenmanager 8
Risk Characterization Ratio (RCR)	0.147231
Exposure route	combined routes
Exposure level	4.877 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.254374

3.7 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes
Exposure level	7.511 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.393889
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term



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Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	66.754 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.513492
Exposure route	combined routes
Exposure level	12.279 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.650635

3.8 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	10.013 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.077024
Exposure route	combined routes
Exposure level	4.173 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.214167
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	20.026 mg/m ³
Calculation method	EasyTRA



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Risk Characterization Ratio (RCR)	0.154048
Exposure route	combined routes
Exposure level	5.604 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.29119

3.9 Process categories [PROC]

PROC10: Roller application or brushing

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	4.389 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.219429

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	26.702 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.205397

Exposure route	combined routes
Exposure level	8.203 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.424825

Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	4.389 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.219429

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	53.403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.410794

Exposure route	combined routes
Exposure level	12.018 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.630222

3.10 Process categories [PROC]

PROC13 Treatment of articles by dipping and pouring



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Issue date: 2022-03-22

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes
Exposure level	7.511 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.393889
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	66.754 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.513492
Exposure route	combined routes
Exposure level	12.279 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.650635

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

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



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Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



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Issue date: 2022-03-22

Exposure Scenario / ES No 6 - Use as laboratory reagent - Industrial use

1 TITLE SECTION

Exposure Scenario name: Use as laboratory reagent - Industrial use

Environmental release categories [ERC]

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

Process categories [PROC]

PROC10: Roller application or brushing.

PROC15: Use as laboratory reagent.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

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

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Process categories [PROC]

PROC10: Roller application or brushing.

Product characteristics

Physical form of product Liquid

Concentration of substance in product Covers concentrations up to 80 %

Frequency, Duration

Covers use up to >4 h/day

Use frequency 5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use

Main user group Industrial use

Exposed skin surface assumed:

960 cm².

2.3 Process categories [PROC]

PROC15: Use as laboratory reagent.



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Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

240 cm².

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

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

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Process categories [PROC]

PROC10: Roller application or brushing

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	4.389 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.219429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.219429 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.205397
Exposure route	combined routes



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Issue date: 2022-03-22

Exposure level	8.203 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.424825
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	4.389 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.219429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	53.403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.410794
Exposure route	combined routes
Exposure level	12.018 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.630222

3.3 Process categories [PROC]

PROC15: Use as laboratory reagent

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.630222 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.003429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	6.675 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.051349
Exposure route	combined routes
Exposure level	1.022 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.054778
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.068571 mg/kg bw/day
Calculation method	EasyTRA



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Risk Characterization Ratio (RCR)	0.003429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	1.976 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.106127

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

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



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Version number: GHS 1.0

Issue date: 2022-03-22

Exposure Scenario / ES No 7 - Waste water treatment - Industrial use

1 TITLE SECTION

Exposure Scenario name: Waste water treatment - Industrial use

Environmental release categories [ERC]

ERC7: Industrial use of substances in closed systems.

Process categories [PROC]

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

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

ERC7: Industrial use of substances in closed systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Industrial use

Exposed skin surface assumed:

480 cm².



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Issue date: 2022-03-22

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

ERC7: Industrial use of substances in closed systems

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	3.338 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.025675
Exposure route	combined routes
Exposure level	0.7511 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.039389
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	2.182 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.116413



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Version number: GHS 1.0

Issue date: 2022-03-22

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

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



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Version number: GHS 1.0

Issue date: 2022-03-22

Exposure Scenario / ES No 8 - Use in oil and gas field drilling and production operations - Industrial use

1 TITLE SECTION

Exposure Scenario name: Use in oil and gas field drilling and production operations - Industrial use

Environmental release categories [ERC]

ERC7: Industrial use of substances in closed systems.

Process categories [PROC]

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.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

ERC7: Industrial use of substances in closed systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Process categories [PROC]

PROC4: Chemical production where opportunity for exposure arises.

Product characteristics

Physical form of product Liquid

Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to <=4 h/day

Use frequency 5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 90 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use

Main user group Industrial use

Exposed skin surface assumed:

480 cm².



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Methanol

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Issue date: 2022-03-22

2.3 Process categories [PROC]

PROC5: Mixing or blending in batch processes.

Product characteristics

Concentration of substance in product Covers percentage substance in the product up to 5 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %. Wear suitable respiratory protection. Assumes a good basic standard of occupational hygiene is implemented.

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Industrial use

Exposed skin surface assumed:

480 cm².

2.4 Process categories [PROC]

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

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 5 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Industrial use

Exposed skin surface assumed:

960 cm².

2.5 Process categories [PROC]

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

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 5 %.



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Methanol

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Frequency, Duration

Covers use up to >4 h/day
 Use frequency 5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use
 Main user group Industrial use

Exposed skin surface assumed:

960 cm².

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

ERC7: Industrial use of substances in closed systems

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Process categories [PROC]

PROC4: Chemical production where opportunity for exposure arises

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.822857 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.041143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	8.01 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.061619
Exposure route	combined routes
Exposure level	0.061619 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102762
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.822857 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.041143



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Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	53.403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.410794
Exposure route	combined routes
Exposure level	8.452 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.451936

3.3 Process categories [PROC]

PROC5: Mixing or blending in batch processes

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	16.688 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.128373
Exposure route	combined routes
Exposure level	2.521 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.13523
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes



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Methanol

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Exposure level	4.905 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.263603

3.4 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	16.688 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.128373

Exposure route	combined routes
Exposure level	2.521 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.13523

Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746

Exposure route	combined routes
Exposure level	4.905 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.263603

3.5 Process categories [PROC]

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

Exposure route	dermal
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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	10.013 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.077024
Exposure route	combined routes
Exposure level	1.568 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.083881
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	20.026 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.154048
Exposure route	combined routes
Exposure level	2.998 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.160905

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

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure Scenario / ES No 9 - Use as a fuel - Professional use

1 TITLE SECTION

Exposure Scenario name: Use as a fuel - Professional use

Environmental release categories [ERC]

ERC8b: Wide dispersive indoor use of reactive substances in open systems.

ERC8e: Wide dispersive outdoor use of reactive substances in open systems.

Process categories [PROC]

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.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

ERC8b: Wide dispersive indoor use of reactive substances in open systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Environmental release categories [ERC]

ERC8e: Wide dispersive outdoor use of reactive substances in open systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.3 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

Product characteristics

Physical form of product Liquid

Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to >4 h/day

Use frequency 5 days per week



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Professional use

Exposed skin surface assumed:

240 cm².

2.4 Process categories [PROC]

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

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 80 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Professional use

Exposed skin surface assumed:

480 cm².

2.5 Process categories [PROC]

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

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 80 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Professional use

Exposed skin surface assumed:

240 cm².

2.6 Process categories [PROC]

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

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 5 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Professional use

Exposed skin surface assumed:

960 cm².

2.7 Process categories [PROC]

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

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 5 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Professional use

Exposed skin surface assumed:

960 cm².

2.8 Process categories [PROC]

PROC16: Use of fuels.



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Professional use

Exposed skin surface assumed:

240 cm².

2.9 Process categories [PROC]

PROC19: Manual activities involving hand contact.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers concentrations up to 10 %

Frequency, Duration

Covers use up to	<=4 h/day
Use frequency	5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Professional use

Exposed skin surface assumed:

1980 cm².

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

ERC8b: Wide dispersive indoor use of reactive substances in open systems

ERC8e: Wide dispersive outdoor use of reactive substances in open systems

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.133508 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001027
Exposure route	combined routes
Exposure level	0.053358 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.002741
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.534032 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.004108
Exposure route	combined routes
Exposure level	0.110576 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.005822

3.3 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	2.182 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.116413
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	53.403 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.410794
Exposure route	combined routes
Exposure level	7.903 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.424508

3.4 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	26.702 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.205397
Exposure route	combined routes



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure level	3.952 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.212254
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	106.806 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.821587
Exposure route	combined routes
Exposure level	15.395 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.828444

3.5 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes
Exposure level	4.905 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.263603
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	66.754 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.513492
Exposure route	combined routes
Exposure level	9.673 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.520349

3.6 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	16.688 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.128373
Exposure route	combined routes
Exposure level	2.521 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.13523
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.13523 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure route combined routes
Exposure level 4.905 mg/kg bw/day
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.263603

3.7 Process categories [PROC]

PROC16: Use of fuels

Exposure route dermal
Health effect systemic
Exposure indicator long-term
Exposure level 0.068571 mg/kg bw/day
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.003429

Exposure route Inhalation
Health effect systemic
Exposure indicator long-term
Exposure level 66.754 mg/m³
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.513492

Exposure route combined routes
Exposure level 9.605 mg/kg bw/day
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.516921

Exposure route dermal
Health effect systemic
Exposure indicator short-term
Exposure level 0.041143 mg/kg bw/day
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.002057

Exposure route Inhalation
Health effect systemic
Exposure indicator short-term
Exposure level 112.147 mg/m³
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.862667

Exposure route combined routes
Exposure level 16.062 mg/kg bw/day
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.864724

3.8 Process categories [PROC]

PROC19: Manual activities involving hand contact

Exposure route dermal



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Health effect	systemic
Exposure indicator	long-term
Exposure level	1.697 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.084857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	40.052 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.308095
Exposure route	combined routes
Exposure level	7.419 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.392952
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	1.697 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.084857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	3.604 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.187556

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

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure Scenario / ES No 10 - Use in cleaning agents - Professional use

1 TITLE SECTION

Exposure Scenario name: Use in cleaning agents - Professional use

Environmental release categories [ERC]

ERC8a: Wide dispersive indoor use of processing aids in open systems.

ERC8d: Wide dispersive outdoor use of processing aids in open systems.

Process categories [PROC]

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.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

ERC8a: Wide dispersive indoor use of processing aids in open systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Environmental release categories [ERC]

ERC8d: Wide dispersive outdoor use of processing aids in open systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.3 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

Product characteristics

Physical form of product

Liquid

Concentration of substance in product

Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to

>4 h/day

Use frequency

5 days per week



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Professional use

Exposed skin surface assumed:

240 cm².

2.4 Process categories [PROC]

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

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 80 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Professional use

Exposed skin surface assumed:

480 cm².

2.5 Process categories [PROC]

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

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 80 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.



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Methanol

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Other conditions affecting workers exposure

Area of use Indoor use
Main user group Professional use

Exposed skin surface assumed:

240 cm².

2.6 Process categories [PROC]

PROC4: Chemical production where opportunity for exposure arises.

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to <=4 h/day
Use frequency 5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 80 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Professional use

Exposed skin surface assumed:

480 cm².

2.7 Process categories [PROC]

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

Product characteristics

Physical form of product Liquid
Concentration of substance in product Covers percentage substance in the product up to 5 %.

Frequency, Duration

Covers use up to >4 h/day
Use frequency 5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use Indoor use
Main user group Professional use

Exposed skin surface assumed:

960 cm².



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Methanol

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Issue date: 2022-03-22

2.8 Process categories [PROC]

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

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 5 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Professional use

Exposed skin surface assumed:

960 cm².

2.9 Process categories [PROC]

PROC10: Roller application or brushing.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 5 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Professional use

Exposed skin surface assumed:

960 cm².

2.10 Process categories [PROC]

PROC11: Non industrial spraying.



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Issue date: 2022-03-22

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers concentrations up to 3 %

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Personal protection

Assumes a good basic standard of occupational hygiene is implemented. Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 90 %.

Wear suitable respiratory protection. Inhalation - minimum efficiency of 90 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Professional use

Exposed skin surface assumed:

1500 cm².

2.11 Process categories [PROC]

PROC13 Treatment of articles by dipping and pouring.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 80 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Professional use

Exposed skin surface assumed:

480 cm².



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Methanol

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Issue date: 2022-03-22

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

ERC8a: Wide dispersive indoor use of processing aids in open systems

ERC8d: Wide dispersive outdoor use of processing aids in open systems

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Process categories [PROC]

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.133508 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001027
Exposure route	combined routes
Exposure level	0.053358 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.002741
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.034286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.001714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.534032 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.004108
Exposure route	combined routes



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Exposure level 0.110576 mg/kg bw/day
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.005822

3.3 Process categories [PROC]

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

Exposure route dermal
Health effect systemic
Exposure indicator long-term
Exposure level 0.274286 mg/kg bw/day
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.013714

Exposure route Inhalation
Health effect systemic
Exposure indicator long-term
Exposure level 13.351 mg/m³
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.102698

Exposure route combined routes
Exposure level 2.182 mg/kg bw/day
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.116413

Exposure route dermal
Health effect systemic
Exposure indicator short-term
Exposure level 0.274286 mg/kg bw/day
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.013714

Exposure route Inhalation
Health effect systemic
Exposure indicator short-term
Exposure level 53.403 mg/m³
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.410794

Exposure route combined routes
Exposure level 7.903 mg/kg bw/day
Calculation method EasyTRA
Risk Characterization Ratio (RCR) 0.424508

3.4 Process categories [PROC]

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

Exposure route dermal



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Issue date: 2022-03-22

Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	26.702 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.205397
Exposure route	combined routes
Exposure level	3.952 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.212254
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	106.806 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.821587
Exposure route	combined routes
Exposure level	15.395 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.828444

3.5 Process categories [PROC]

PROC4: Chemical production where opportunity for exposure arises

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.822857 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.041143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term



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Issue date: 2022-03-22

Exposure level	40.052 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.308095
Exposure route	combined routes
Exposure level	6.545 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.349238
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.822857 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.041143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	18.691 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.143778
Exposure route	combined routes
Exposure level	3.493 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.184921

3.6 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes



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Issue date: 2022-03-22

Exposure level	4.905 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.263603
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	66.754 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.513492
Exposure route	combined routes
Exposure level	9.673 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.520349

3.7 Process categories [PROC]

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

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	16.688 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.128373
Exposure route	combined routes
Exposure level	2.521 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.13523
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.137143 mg/kg bw/day
Calculation method	EasyTRA



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Risk Characterization Ratio (RCR)	0.006857
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes
Exposure level	4.905 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.263603

3.8 Process categories [PROC]

PROC10: Roller application or brushing

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes
Exposure level	5.042 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.27046
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	66.754 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.513492
Exposure route	combined routes



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Exposure level	9.811 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.527206

3.9 Process categories [PROC]

PROC11: Non industrial spraying

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.321429 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.016071

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	71.54 mg/m ³
Calculation method	EasyTRA Stoffenmanager 8
Risk Characterization Ratio (RCR)	0.550308

Exposure route	combined routes
Exposure level	10.541 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.566379

Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.321429 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.016071

Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	71.54 mg/m ³
Calculation method	EasyTRA Stoffenmanager 8
Risk Characterization Ratio (RCR)	0.550308

Exposure route	combined routes
Exposure level	10.541 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.566379

3.10 Process categories [PROC]

PROC13 Treatment of articles by dipping and pouring

Exposure route	dermal
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Health effect	systemic
Exposure indicator	long-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	66.754 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.513492
Exposure route	combined routes
Exposure level	12.279 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.650635
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.743 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.137143
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	4.65 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.239841

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

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure Scenario / ES No 11 - Use as laboratory reagent - Professional use

1 TITLE SECTION

Exposure Scenario name: Use as laboratory reagent - Professional use

Environmental release categories [ERC]

ERC8a: Wide dispersive indoor use of processing aids in open systems.

Process categories [PROC]

PROC10: Roller application or brushing.

PROC15: Use as laboratory reagent.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

ERC8a: Wide dispersive indoor use of processing aids in open systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Process categories [PROC]

PROC10: Roller application or brushing.

Product characteristics

Physical form of product

Liquid

Concentration of substance in product

Covers percentage substance in the product up to 5 %.

Frequency, Duration

Covers use up to

>4 h/day

Use frequency

5 days per week

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use

Indoor use

Main user group

Professional use

Exposed skin surface assumed:

960 cm².

2.3 Process categories [PROC]

PROC15: Use as laboratory reagent.



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Issue date: 2022-03-22

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %.

Frequency, Duration

Covers use up to	>4 h/day
Use frequency	5 days per week

Technical and organisational measures

Local exhaust ventilation. Air - minimum efficiency of 80 %.

Personal protection

Wear suitable gloves tested to EN374. Dermal - minimum efficiency of 80 %.

Other conditions affecting workers exposure

Area of use	Indoor use
Main user group	Professional use

Exposed skin surface assumed:

240 cm².

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

ERC8a: Wide dispersive indoor use of processing aids in open systems

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Process categories [PROC]

PROC10: Roller application or brushing

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	33.377 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.256746
Exposure route	combined routes



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure level	5.042 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.27046
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.274286 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.013714
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	66.754 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.513492
Exposure route	combined routes
Exposure level	9.811 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.527206

3.3 Process categories [PROC]

PROC15: Use as laboratory reagent

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.068571 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.003429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	13.351 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.102698
Exposure route	combined routes
Exposure level	1.976 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.106127
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.068571 mg/kg bw/day
Calculation method	EasyTRA



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Methanol

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Risk Characterization Ratio (RCR)	0.003429
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	26.702 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.205397
Exposure route	combined routes
Exposure level	3.883 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.208825

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

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure Scenario / ES No 12 - Use in cleaning agents/ De-icing and anti-icing applications/ Spray application - Consumer use

1 TITLE SECTION

Exposure Scenario name: Use in cleaning agents/ De-icing and anti-icing applications/ spray application - Consumer use

Environmental release categories [ERC]

ERC8a: Wide dispersive indoor use of processing aids in open systems.

ERC8d: Wide dispersive outdoor use of processing aids in open systems.

Product categories [PC]

PC4: Anti-freeze and de-icing products - Cleaning.

PC4: Anti-freeze and de-icing products - Spraying.

PC35: Washing and cleaning products - Cleaning.

PC35: Washing and cleaning products - Spraying.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

ERC8a: Wide dispersive indoor use of processing aids in open systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Environmental release categories [ERC]

ERC8d: Wide dispersive outdoor use of processing aids in open systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.3 Products Category [PC]

PC4: Anti-freeze and de-icing products - Cleaning.

Product characteristics

Physical form of product Liquid

Concentration of substance in product Covers percentage substance in the product up to 1 %.

Concentration of substance in product 0.59 %

Amounts used, Frequency, Duration

Covers use up to <= 1 h/day

Amounts used Inhalation: 16.2 g
dermal long-term: 0.310 g
dermal short-term: 0.160 g

Frequency 365 days per year



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Other conditions affecting consumers exposure

Covers use in room size of 15 m³
Ventilation rate 2.5 ach (air changes per hour)
Release area 0.000171 cm²

Exposed skin surface assumed:

215 cm².

2.4 Products Category [PC]

PC4: Anti-freeze and de-icing products - Spraying.

Product characteristics

Spray application.

Physical form of product Liquid
Concentration of substance in product 0.59 %
Concentration of substance in product (None Volatile) 5 %

Amounts used, Frequency, Duration

Covers use up to <= 1 h/day
Amounts used Inhalation: 16.2 g
dermal: 0.160 g
Spray duration 13.8 sec
Release duration 28 sec
Other conditions affecting consumers exposure
Covers use in room size of 15 m³
Ventilation rate 2.5 ach (air changes per hour)
Release area 0.000171 cm²

Exposed skin surface assumed:

2200 cm².
Skin Exposure level: 46 mg/ min

2.5 Products Category [PC]

PC35: Washing and cleaning products - Cleaning.

Product characteristics
Physical form of product Liquid
Concentration of substance in product 1 % (short-term)
5 % (long-term)

Amounts used, Frequency, Duration

Covers use up to <= 1 h/day
Amounts used Inhalation: 16.2 g
dermal: 0.310 g
Frequency 365 days per year



Annex to the extended Safety Data Sheet (eSDS)

Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Other conditions affecting consumers exposure

Covers use in room size of 15 m³

Ventilation rate 2.5 ach (air changes per hour)

Release area 0.000171 cm²

Exposed skin surface assumed:

225 cm².

2.6 Products Category [PC]

PC35: Washing and cleaning products - Spraying.

Product characteristics

Spray application.

Physical form of product Liquid

Concentration of substance in product 1 %. (Short-term)
5 %. (Long-term)

Amounts used, Frequency, Duration

Covers use up to <= 1 h/day

Amounts used Inhalation: 16.2 g
dermal: 0.160 g

Spray duration 13.8 sec

Release duration 2824.6 sec

Other conditions affecting consumers exposure

Covers use in room size of 15 m³

Ventilation rate 2.5 ach (air changes per hour)

Release area 0.000171 cm²

Exposed skin surface assumed:

2200 cm².

Skin Exposure level: 46 mg/ min

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

ERC8a: Wide dispersive indoor use of processing aids in open systems

ERC8d: Wide dispersive outdoor use of processing aids in open systems

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Product categories [PC]

PC4: Anti-freeze and de-icing products - Cleaning

Exposure route dermal

Health effect systemic

Exposure indicator long-term

Exposure level 0.026584 mg/kg bw/day



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.006646
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.097454 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.003748
Exposure route	combined routes
Exposure level	0.028526 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.010394
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.014523 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.003631
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.339 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.089957
Exposure route	combined routes
Exposure level	0.06385 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.093588

3.3 Product categories [PC]

PC4: Anti-freeze and de-icing products - Spraying

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.001841 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.00046
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.012323 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000474



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Exposure route	combined routes
Exposure level	0.002086 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000934
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.001841 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.00046
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.295756 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.011375
Exposure route	combined routes
Exposure level	0.007734 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.011835

3.4 Product categories [PC]

PC35: Washing and cleaning products - Cleaning

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.225291 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.056323
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.825882 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.031765
Exposure route	combined routes
Exposure level	0.241746 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.088087
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.045058 mg/kg bw/day



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Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.011265
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	3.964 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.15247
Exposure route	combined routes
Exposure level	0.124045 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.163734

3.5 Product categories [PC]

PC35: Washing and cleaning products - Spraying

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	1.574 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.393446
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.102838 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.003955
Exposure route	combined routes
Exposure level	1.576 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.397401
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.00312 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.00078
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.493621 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.018985



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Exposure route	combined routes
Exposure level	0.012955 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.019765

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

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



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Issue date: 2022-03-22

Exposure Scenario / ES No 13 - Use in cleaning agents/ De-icing and anti-icing applications/ Liquid products - Consumer use

1 TITLE SECTION

Exposure Scenario name: Use in cleaning agents/ De-icing and anti-icing applications/ liquid products - Consumer use

Environmental release categories [ERC]

ERC8a: Wide dispersive indoor use of processing aids in open systems.

ERC8d: Wide dispersive outdoor use of processing aids in open systems.

Product categories [PC]

PC4: Anti-freeze and de-icing products

PC35: Washing and cleaning products.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

ERC8a: Wide dispersive indoor use of processing aids in open systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Environmental release categories [ERC]

ERC8d: Wide dispersive outdoor use of processing aids in open systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.3 Products Category [PC]

PC4: Anti-freeze and de-icing products

Product characteristics

Physical form of product Liquid

Concentration of substance in product 0.59 %

Amounts used, Frequency, Duration

Covers use up to <= 4 h/day

Amounts used Inhalation: 100 g
dermal: 5 g

Frequency 197 days per year

Other conditions affecting consumers exposure

Covers use in room size of 58 m³

Ventilation rate 0.5 ach (air changes per hour)

Release area 0.000032 cm²



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Exposed skin surface assumed:

2200 cm².

2.4 Products Category [PC]

PC35: Washing and cleaning products - Spraying.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	1 %.

Amounts used, Frequency, Duration

Covers use up to	<= 4 h/day
Amounts used	Inhalation: 100 g dermal: 5 g
Frequency	197 days per year
Other conditions affecting consumers exposure	
Covers use in room size of	58 m ³
Ventilation rate	0.5 ach (air changes per hour)
Release area	0.000032 cm ²

Exposed skin surface assumed:

2200 cm².

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

ERC8a: Wide dispersive indoor use of processing aids in open systems

ERC8d: Wide dispersive outdoor use of processing aids in open systems

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Product categories [PC]

PC4: Anti-freeze and de-icing products

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.231423 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.057856
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.722239 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.027778



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Exposure route	combined routes
Exposure level	0.288985 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.085634
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.428779 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.107195
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	4.333 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.166671
Exposure route	combined routes
Exposure level	0.774154 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.273866

3.3 Product categories [PC]

PC35: Washing and cleaning products

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.392243 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.098061
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	1.224 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.047082
Exposure route	combined routes
Exposure level	0.489806 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.145143
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.726744 mg/kg bw/day



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Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.181686
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	7.345 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.282494
Exposure route	combined routes
Exposure level	1.312 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.46418

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

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Health

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.



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Methanol

Version number: GHS 1.0

Issue date: 2022-03-22

Exposure Scenario / ES No 14 - Use as a fuel Additive - Consumer use/ Outdoor use

1 TITLE SECTION

Exposure Scenario name: Use as a fuel Additive - Consumer use/ Outdoor use

Environmental release categories [ERC]

ERC8e: Wide dispersive outdoor use of reactive substances in open systems.

Product categories [PC]

PC13: Fuels.

2 Conditions of use affecting exposure

2.1 Environmental release categories [ERC]

ERC8e: Wide dispersive outdoor use of reactive substances in open systems.

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

2.2 Products Category [PC]

PC13: Fuels.

Product characteristics

Physical form of product	Liquid
Concentration of substance in product	2 % (short-term) 3 % (long-term)

Amounts used, Frequency, Duration

Covers use up to	10 min/day
Amounts used	Inhalation: short-term: 10 g Inhalation: long-term: 0.0005 g dermal: 10 g
Frequency	2 days per week

Other conditions affecting consumers exposure

Covers use in room size of	20 m ³
Ventilation rate	0.5 ach (air changes per hour)
Release area	2 cm ²

Exposed skin surface assumed:

430 cm².



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Issue date: 2022-03-22

3 Exposure estimation and reference to its source

3.1 Environmental release categories [ERC]

ERC8e: Wide dispersive outdoor use of reactive substances in open systems

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

3.2 Product categories [PC]

PC13: Fuels

Exposure route	dermal
Health effect	systemic
Exposure indicator	long-term
Exposure level	1.319 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.32967
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	long-term
Exposure level	0.002716 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.000104
Exposure route	combined routes
Exposure level	1.319 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.329775
Exposure route	dermal
Health effect	systemic
Exposure indicator	short-term
Exposure level	2.907 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.726744
Exposure route	Inhalation
Health effect	systemic
Exposure indicator	short-term
Exposure level	0.266072 mg/m ³
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.010234
Exposure route	combined routes
Exposure level	2.908 mg/kg bw/day
Calculation method	EasyTRA
Risk Characterization Ratio (RCR)	0.736978



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

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Health

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