

SAFETY DATA SHEET



METHANOL

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

1.1 Product identifier

Product name : METHANOL**Index number** : 603-001-00-X**EC number** : 200-659-6**REACH Registration number**

Registration number	Legal entity
01-2119433307-44-0035	Bio Methanol Chemie Nederland BV

CAS number : 67-56-1**Product description** : Not available.**Product type** : Liquid.**Other means of identification** : Methyl alcohol; Methanol, >25 - 44% in a non hazardous diluent; Methanol, >1 - 10% in a non hazardous diluent; Methanol, >44 - 50% in a non hazardous diluent; Methanol, >18 - 25% in a non hazardous diluent; Methanol, >50% in a non hazardous diluent**Chemical formula** : C-H4-O

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

Product use : Not available.**Area of application** : Consumer applications, Industrial applications, Professional applications.

Identified uses
Manufacture of substance; Use as an intermediate; Use as a process additive Distribution of substance Formulation and (re)packing of substances and mixtures Use as a fuel - industrial setting Use as a fuel - professional setting Industrial Use in Cleaning Agents Professional Use in Cleaning Agents Use as laboratory reagent - Industrial Use as laboratory reagent - Professional Water treatment chemicals Use in Oil field drilling and production operations (SU 22). - Professional Consumer Use in Cleaning Agents and De-icers - liquid preparations and Spraying Consumer Use as a fuel Indoor. Consumer Use as a fuel Outdoor.

1.3 Details of the supplier of the safety data sheet

BioMethanol Chemie Nederland B.V. (BioMCN)

PO Box 251, NL-9930 AG

DELFTZIJL

Phone : +31 (0)596 64 77 00

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1.4 Emergency telephone number

Supplier

Telephone number : +31 (0)596 64 77 00
NVIC (+31(0)30-274 88 88)**Date of issue/Date of revision** : 5 April 2011

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mono-constituent substance

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 2, H225

Acute Tox. 3, H301

Acute Tox. 3, H311

Acute Tox. 3, H331

STOT SE 1, H370o

STOT SE 1, H370i

Classification according to Directive 67/548/EEC [DSD]

F; R11

T; R23/24/25, R39/23/24/25

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Highly flammable liquid and vapour.
Toxic if swallowed.
Toxic in contact with skin.
Toxic if inhaled.
Causes damage to organs if inhaled.
Causes damage to organs if swallowed.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Do not breathe vapour.

Response : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Storage : Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Yes, applicable.

Tactile warning of danger : Yes, applicable.

2.3 Other hazards

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SECTION 2: Hazards identification

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII : No.

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : No.

Other hazards which do not result in classification : Not available.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mono-constituent substance

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
methanol	REACH #: 01-2119433307-44 EC: 200-659-6 CAS: 67-56-1 Index: 603-001-00-X	100	F; R11 T; R23/24/25, R39/23/24/25 See section 16 for the full text of the R-phrases declared above	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370o STOT SE 1, H370i See Section 16 for the full text of the H statements declared above.	[A]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

- [A] Constituent
- [B] Impurity
- [C] Stabilising additive

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

METHANOL**SECTION 4: First aid measures**

- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed**Potential acute health effects**

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- Skin contact** : Toxic in contact with skin.
- Ingestion** : Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

5.3 Advice for firefighters

- Special precautions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

METHANOL**SECTION 5: Firefighting measures**

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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SECTION 7: Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
methanol	EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin. STEL: 333 mg/m ³ 15 minute(s). STEL: 250 ppm 15 minute(s). TWA: 266 mg/m ³ 8 hour(s). TWA: 200 ppm 8 hour(s).

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

DNELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
methanol	DNEL	Short term Dermal	40 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	260 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	260 mg/m ³	Workers	Local
	DNEL	Long term Dermal	40 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	260 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	260 mg/m ³	Workers	Local
	DNEL	Short term Dermal	8 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Inhalation	50 mg/m ³	Consumers	Systemic
	DNEL	Short term Oral	8 mg/kg	Consumers	Systemic

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SECTION 8: Exposure controls/personal protection

	DNEL	Short term Inhalation	bw/day 50 mg/m ³	Consumers	Local
	DNEL	Long term Dermal	8 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	50 mg/m ³	Consumers	Systemic
	DNEL	Long term Oral	8 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	50 mg/m ³	Consumers	Local

PNECs

Product/ingredient name	Type	Compartment Detail	Value
methanol	PNEC	Fresh water	154 mg/l
	PNEC	Marine	15.4 mg/l
	PNEC	Sediment	570.4 mg/kg dw
	PNEC	Soil	23.5 mg/kg wwt
	PNEC	Sewage Treatment Plant	100 mg/l

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

METHANOL**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****Appearance**

Physical state	: Liquid.
Colour	: Colourless.
Odour	: Pungent.
Odour threshold	: Not applicable.
pH	: Not applicable.
Melting point/freezing point	: -97.8°C
Initial boiling point and boiling range	: 64.7°C
Flash point	: Closed cup: 9.7°C
Evaporation rate	: Not available.
Flammability (solid, gas)	: Highly flammable liquid.
Burning time	: Not applicable.
Burning rate	: Not applicable.
Upper/lower flammability or explosive limits	: Lower: 4.4% Upper: 38.5% at °C:50
Vapour pressure	: 16927 Pa (25 C)
Vapour density	: 1.1 [Air = 1]
Relative density	: 0.79 to 8
Solubility(ies)	: Miscible in water. Soluble in the following materials: organic solvents
Partition coefficient: n-octanol/water	: -0.77
Auto-ignition temperature	: 455°C
Decomposition temperature	: Not available.
Viscosity	: Dynamic: 0.544 to 0.59 mPa·s at 25°C
Explosive properties	: None.
Oxidising properties	: None.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

- | | |
|--|--|
| 10.1 Reactivity | : May form explosive mixtures with air. |
| 10.2 Chemical stability | : The product is stable. |
| 10.3 Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10.4 Conditions to avoid | : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. |
| 10.5 Incompatible materials | : Reactive or incompatible with the following materials: oxidizing materials. Sodium Magnesium. |
| 10.6 Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
methanol	LC50 Inhalation Vapour	Cat	85400 mg/m ³	4.5 hours
	LC50 Inhalation Vapour	Cat	43700 mg/m ³	6 hours
	LC50 Inhalation Vapour	Rat	128200 mg/m ³	4 hours
	LD50 Dermal	Rabbit	17100 mg/kg	-
	LD50 Oral	Monkey	7 to 9 g/kg	-
	LD50 Oral	Rat	1187 to 2769 mg/kg	-

Conclusion/Summary : The product is classified as dangerous according to Directive 67/548/EEC and its amendments.
 R23/24/25- Toxic by inhalation, in contact with skin and if swallowed.
 R39/23/24/25- Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

CLP Classification
 Acute toxicity
 STOT-SE = Specific Target Organ Toxicity - Single Exposure

Irritation/Corrosion

Conclusion/Summary

Skin : Non-irritant to skin.
Eyes : Non-irritating to the eyes.
Respiratory : No data available for this end-point.

Sensitiser

Conclusion/Summary

Skin : Non-sensitiser to skin.
Respiratory : Not classified for respiratory sensitisation.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
methanol	-	Experiment: In vivo Subject: Mammalian-Animal	Negative

Conclusion/Summary : No mutagenic effect.

Carcinogenicity

Conclusion/Summary : No carcinogenic effect.

Reproductive toxicity

Conclusion/Summary : Not classified.
 Fertility:
 NOAEC (Rat) = 1.3 mg/L
 NOAEC (Monkey) = 2.39 mg/L
 NOAEL(Oral) Sperm = 1000 mg/kg bw/day
 Developmental Toxicity:
 NOAEC (Rat) = 1.33 mg/L
 LOAEL (Mouse) = 1700 mg/kg

Teratogenicity

Conclusion/Summary : Not classified.
 Fertility:
 NOAEC (Rat) = 1.3 mg/L
 NOAEC (Monkey) = 2.39 mg/L
 Developmental Toxicity:
 NOAEC (Rat, Mouse) = 1.33 mg/L
 LOAEL(Mouse) = 5000 mg/kg

Specific target organ toxicity (single exposure)

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SECTION 11: Toxicological information

Product/ingredient name	Category	Route of exposure	Target organs
methanol	Category 1	Oral Inhalation	Not determined Not determined

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated:Oral, Dermal, Inhalation.

Potential acute health effects

- Inhalation** : Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- Ingestion** : Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.
- Skin contact** : Toxic in contact with skin.
- Eye contact** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Inhalation** : No specific data.
- Ingestion** : No specific data.
- Skin contact** : No specific data.
- Eye contact** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
methanol	Sub-chronic LOAEL Oral	Mammal - species unspecified - Male	2340 mg/kg	3 days
	Sub-chronic LOAEL Intraperitoneal	Rat	5000 mg/kg	-
	Chronic NOAEL Inhalation Vapour	Mammal - species unspecified	13 mg/m ³	7 months

- Conclusion/Summary** : Oral Route : Target organs: Eye
Inhalation Route: Target organs: heart, brain, liver
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.
- Absorption** : Rapidly absorbed.

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SECTION 11: Toxicological information

- Metabolism** : Rapidly metabolised.
Metabolised to the following: Formaldehyde. Metabolised to the following: water, Carbon dioxide (CO₂).
- Elimination** : Metabolised before excretion. Excreted to the air during respiration.
- Other information** : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
methanol	EC50 20000 mg/l Fresh water	Micro-organism	15 hours
	IC50 880 to 1000 mg/l	Micro-organism	24 hours
	Acute EC50 22000 mg/l Fresh water	Algae	96 hours
	Acute EC50 >1000 mg/l	Daphnia	48 hours
	Acute LC50 15400 mg/l Fresh water	Fish	96 hours
	Chronic NOEC 7900 mg/l Fresh water	Fish	200 hours

- Conclusion/Summary** : Not classified as dangerous
PNEC Intermittent release.= 1540 mg/l

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
methanol	-	97 % - Readily - 20 days	-	Marine water
	-	95 % - 20 days	-	Fresh water
	-	83 to 91 % - 3 days	-	Sediment
	-	71.5 % - 5 days	-	Fresh water
	-	69 % - 5 days	-	Marine water
	-	53.5 % - 5 days	-	Soil
	-	46.3 % - 5 days	-	Soil

- Conclusion/Summary** : Readily biodegradable, not persistent.
Not toxic.
This substance is not expected to bioaccumulate through food chains in the environment.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
methanol	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
methanol	-0.77	<10	low

12.4 Mobility in soil

- Soil/water partition coefficient (K_{oc})** : 0.13 to 1
- Mobility** : No data available

12.5 Results of PBT and vPvB assessment

- PBT** : No.
- vPvB** : No.

- 12.6 Other adverse effects** : No known significant effects or critical hazards.

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SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.





Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	UN1230	UN1230	UN1230	UN1230
14.2 UN proper shipping name	METHANOL	METHANOL	METHANOL	Methanol
14.3 Transport hazard class(es)	3 (6.1) 	3 (6.1) 	3 (6.1) 	3 (6.1) 
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	No.	No.	No.
14.6 Special precautions for user	Not available.	Not available.	Not available.	Not available.
Additional information	Hazard identification number 336 Limited quantity 1 L Special provisions 279 Tunnel code (D/E)	-	Emergency schedules (EmS) F-E, S-D	Passenger and Cargo Aircraft Quantity limitation: 1 L Packaging instructions: 352 Cargo Aircraft Only Quantity limitation: 60 L Packaging instructions: 364 Limited Quantities - Passenger Aircraft Quantity limitation: 1 L

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SECTION 14: Transport information

				Packaging instructions: Y341
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14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Europe inventory : This material is listed or exempted.

Black List Chemicals : Not listed

Priority List Chemicals : Not listed

Integrated pollution prevention and control list (IPPC) - Air : Not listed

Integrated pollution prevention and control list (IPPC) - Water : Not listed

International regulations

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

15.2 Chemical Safety Assessment : Complete.

15.3 Registration status : Applicable.

SECTION 16: Other information

📄 Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

Date of issue/Date of revision : 5 April 2011

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METHANOL

SECTION 16: Other information

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 2, H225	Expert judgment
Acute Tox. 3, H301	Expert judgment
Acute Tox. 3, H311	Expert judgment
Acute Tox. 3, H331	On basis of test data
STOT SE 1, H370o	Expert judgment
STOT SE 1, H370i	Expert judgment

Full text of abbreviated H statements : H225 Highly flammable liquid and vapour.
 H301 Toxic if swallowed.
 H311 Toxic in contact with skin.
 H331 Toxic if inhaled.
 H370i Causes damage to organs if inhaled.
 H370o Causes damage to organs if swallowed.

Full text of classifications [CLP/GHS] : Acute Tox. 3, H301 ACUTE TOXICITY: ORAL - Category 3
 Acute Tox. 3, H311 ACUTE TOXICITY: SKIN - Category 3
 Acute Tox. 3, H331 ACUTE TOXICITY: INHALATION - Category 3
 Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2
 STOT SE 1, H370i SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): INHALATION - Category 1
 STOT SE 1, H370o SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): ORAL - Category 1

Full text of abbreviated R phrases : R11- Highly flammable.
 R23/24/25- Toxic by inhalation, in contact with skin and if swallowed.
 R39/23/24/25- Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Full text of classifications [DSD/DPD] : F - Highly flammable
 T - Toxic

Date of issue/ Date of revision : 5 April 2011

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Version : 1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Consumer Use in Cleaning Agents and De-icers - liquid preparations and Spraying
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC04, PC35

Processes and activities covered by the exposure scenario Consumer application.: Use in Cleaning Agents and De-icers Used by spraying or liquid preparations
Assessment Method See Section 3

Section 2: Operational conditions and risk management measures**Section 2.1: Control of consumer exposure****Contributing exposure scenario controlling consumer exposure for 0: liquid preparations**

Product Characteristics: Molecular weight:18 g/mole
 Mass transfer rate: 0.413 m/min
Concentration of substance in mixture or article Covers concentrations up to 2.5%
Physical state: Liquid. Vapour pressure 169 hPa
Amounts used: For each use event, covers use amounts up to 100 g
Frequency and duration of use: Frequency: 104 L/Year
 Duration of treatment/exposure: 240 min
 Application duration: 20 min
Human factors not influenced by risk management: Exposed skin surfaces: Both hands and forearms (1980 cm²)
 Inhalation rate: 24.1 L/min
Other given operational conditions affecting consumers exposure: Covers use in room size of 58 m³
 Ventilation rate: 0.5 L/hour(s)
 Release area: 5 m²
Conditions and measures related to information and behavioural advice to consumers None.
Conditions and measures related to personal protection and hygiene None.
Contributing scenarios: Operational conditions and risk management measures

Contributing exposure scenario controlling consumer exposure for 1: spray application

Product Characteristics: Molecular weight:22 g/mole
 Mass transfer rate: 0.413 m/min
Concentration of substance in mixture or article Covers concentrations up to 5%
Physical state: Liquid. Vapour pressure 169 hPa
Amounts used: For each use event, covers use amounts up to 16.2 g
Frequency and duration of use: Frequency: 365 L/Year
 Duration of treatment/exposure: 60 min
 Application duration: 10 min
 Spray duration: 0.41 min
Human factors not influenced by risk management: Exposed skin surfaces Spraying: Both hands (960 cm²)
 Exposed skin surfaces Cleaning: Palm of one hand (240 cm²)
 Inhalation rate: 24.1 L/min
Other given operational conditions affecting consumers exposure: Covers use in room size of 15 m³;
 Room height 2.5 m
 Ventilation rate: 2.5 L/hour(s)
 Release area: 1.71 m²
Conditions and measures related to information and behavioural advice to consumers Spraying away from exposed person
Conditions and measures related to personal protection and hygiene None.
Contributing scenarios: Operational conditions and risk management measures

METHANOL

Identified use name: Consumer Use in Cleaning Agents and De-icers - liquid preparations and Spraying
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC04, PC35

Section 2.2: Control of environmental exposure

Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive indoor use of processing aids in open systems

Product Characteristics:	Not available.
Amounts used:	
Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day)	Not available.
Maximum daily site tonnage (kg/day):	Not available.
Frequency and duration of use:	
Emission Days (days/year):	Not available.
Environmental factors not influenced by risk management:	
Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.
Other operational conditions of use affecting environmental exposure:	
Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Conditions and measures related to municipal sewage treatment plant:	
Estimated substance removal from wastewater via domestic sewage treatment (%):	Not available.
Total efficiency of removal from wastewater after on-site and off-site (domestic treatment plant) RMMs (%):	Not available.
Maximum allowable site tonnage (M_{safe}) based on release following total wastewater treatment removal (kg/d):	Not available.
Assumed domestic sewage treatment plant flow (m ³ /d):	Not available.

Contributing exposure scenario controlling environmental exposure for 1: Wide dispersive outdoor use of processing aids in open systems

Product Characteristics:	Not available.
Amounts used:	
Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day)	Not available.
Maximum daily site tonnage (kg/day):	Not available.
Frequency and duration of use:	
Emission Days (days/year):	Not available.
Environmental factors not influenced by risk management:	
Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.
Other operational conditions of use affecting environmental exposure:	
Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Conditions and measures related to municipal sewage treatment plant:	
Estimated substance removal from wastewater via domestic sewage treatment (%):	Not available.
Total efficiency of removal from wastewater after on-site and off-site (domestic treatment plant) RMMs (%):	Not available.

METHANOL

Identified use name: Consumer Use in Cleaning Agents and De-icers - liquid preparations and Spraying
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC04, PC35

Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal (kg/d):

Not available.

Assumed domestic sewage treatment plant flow (m³/d): Not available.

Section 3: Exposure estimation and reference to its source

Section 3.1: Exposure estimation - Consumers

Exposure estimation and reference to its source - Consumers: 2:

Contributing Scenario:	Frequency (1/Year):	Weight fraction of substance in the article::	Body weight:	Calculation method:
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Exposure estimation and reference to its source - Consumers: 0:

Inhalation :

Mode of release: Not applicable.

Exposure estimation and reference to its source - Consumers: 1:

Exposure (minutes):	Application duration:	Amount/concentration applied (g):	Room volume (m ³):	Room volume x ventilation rate: (l/h):
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Release area (cm ²):	Temperature (°C):	Mass transfer rate:	Contributing Scenario Molecular weight (g/mole):	Uptake fraction (Update model):	Inhalation rate:
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Dermal:

Application methods: Not applicable.

Surface area (Skin contact area) cm ² :	Product amount (g):	Uptake fraction (Update model):	Inhalation event (mg/m ³):
Not applicable.	Not applicable.	Not applicable.	Not applicable.
Inhalation mg/m ³ (Concentration on day of exposure):	Dermal load (mg/cm ²):	Dermal External dose (mg/kg bw):	Dermal (Internal dose) mg/kg bw/day:
Not applicable.	Not applicable.	Not applicable.	Not applicable.
Dermal (External dose) mg/kg bw/day:	Inhalation event/Exposure mg/m ³ (Short term exposure):	Dermal systemic exposure (external dose) with gloves (90% efficiency) mg/kg bw/day (Long term exposure):	Inhalation (mg/kg/day) Long term exposure:
Not applicable.	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Exposure estimation-Consumers

Contributing exposure scenario controlling worker exposure for 0:

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Systemic, Oral	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Oral	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Consumer Use in Cleaning Agents and De-icers - liquid preparations and Spraying
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC04, PC35

Section 3.3 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 1:

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m²/d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to Downstream User to evaluate if he works inside the boundaries set by the ES

Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE.
Health	Exposure estimation and RISK CHARACTERISATION: Not applicable. The Consexpo model has been used to estimate consumer exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA

Environment	Not applicable.
Health	Not applicable.
Additional guidance	Not applicable.

METHANOL

**Identified use name: Consumer Use in Cleaning Agents and De-icers -
liquid preparations and Spraying
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC04, PC35**

Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Consumer Use as a fuel Indoor.
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b
Market sector by type of chemical product: PC13

Processes and activities covered by the exposure scenario Domestic/hobby use e.g in model engines, fuel cells, fondue sets
Assessment Method See Section 3

Section 2: Operational conditions and risk management measures**Section 2.1: Control of consumer exposure****Contributing exposure scenario controlling consumer exposure for 0:**

Product Characteristics: Molecular weight: 100 g/mole
Mass transfer rate: 0.413 m/min

Concentration of substance in mixture or article Concentration of substance in product 80%

Physical state: Liquid. Vapour pressure 169 hPa

Amounts used: For each use event, covers use amounts up to 800 g - Inhalable, Release area 2 cm²

Frequency and duration of use: Frequency: 2 L/Year
Duration of treatment/exposure: 10 min
Application duration: 10 min

Human factors not influenced by risk management: Inhalation rate: 34.7 m³/d

Other given operational conditions affecting consumers exposure: Covers use in room size of 20 m³
Ventilation rate: 0.5 L/hour(s)
Release area: 2 m²

Conditions and measures related to information and behavioural advice to consumers None.

Conditions and measures related to personal protection and hygiene None.

Contributing scenarios: Operational conditions and risk management measures

Section 2.2: Control of environmental exposure**Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive indoor use of processing aids in open systems**

Product Characteristics: Not available.

Amounts used:

Fraction of EU tonnage used in region: Not available.

Regional use tonnage (tonnes/year): Not available.

Fraction of Regional tonnage used locally: Not available.

Annual site tonnage (tonnes/year): Not available.

Average Local Daily Tonnage (kg/day) Not available.

Maximum daily site tonnage (kg/day): Not available.

Frequency and duration of use:

Emission Days (days/year): Not available.

Environmental factors not influenced by risk management:

Local freshwater dilution factor: Not available.

Local marine water dilution factor: Not available.

Other operational conditions of use affecting environmental exposure:

Release fraction to air from process (initial release prior to RMM): Not available.

Release fraction to soil from process (initial release prior to RMM): Not available.

METHANOL

Identified use name: Consumer Use as a fuel Indoor.
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b
Market sector by type of chemical product: PC13

Release fraction to wastewater from process (initial release prior to RMM): Not available.

Conditions and measures related to municipal sewage treatment plant:

Estimated substance removal from wastewater via domestic sewage treatment (%): Not available.
 Total efficiency of removal from wastewater after on-site and off-site (domestic treatment plant) RMMs (%): Not available.
 Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal (kg/d): Not available.
 Assumed domestic sewage treatment plant flow (m³/d): Not available.

Section 3: Exposure estimation and reference to its source

Section 3.1: Exposure estimation - Consumers

Exposure estimation and reference to its source - Consumers: 2:

	Contributing Scenario:	Frequency (1/Year):	Weight fraction of substance in the article::	Body weight:	Calculation method:
Exposure estimation and reference to its source - Consumers: 0:	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Inhalation :

Mode of release: evaporation

Exposure estimation and reference to its source - Consumers: 1:

Exposure (minutes):	Application duration:	Amount/concentration applied (g):	Room volume (m³):	Room volume x ventilation rate: (l/h):
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Release area (cm2):	Temperature (°C):	Mass transfer rate:	Contributing Scenario Molecular weight (g/mole):	Uptake fraction (Update model):	Inhalation rate:
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Dermal:

Application methods: Dermal Direct application - instant

Surface area (Skin contact area) cm2:	Product amount (g):	Uptake fraction (Update model):	Inhalation event (mg/m³):
Not applicable.	Not applicable.	Yes, applicable.	Not applicable.

Inhalation mg/m³ (Concentration on day of exposure):	Dermal load (mg/cm2):	Dermal External dose (mg/kg bw):	Dermal (Internal dose) mg/kg bw/day:
Not applicable.	Not applicable.	Not applicable.	Not applicable.

Dermal (External dose) mg/kg bw/day:	Inhalation event/Exposure mg/m³ (Short term exposure):	Dermal systemic exposure (external dose) with gloves (90% efficiency) mg/kg bw/day (Long term exposure):	Inhalation (mg/kg/day) Long term exposure:
Not applicable.	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Exposure estimation-Consumers

Contributing exposure scenario controlling worker exposure for 0:

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable	Not applicable.	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	0.287 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Systemic, Oral	Not applicable	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable	Not applicable.	Not applicable.
Short term exposure, Systemic, Inhalable		41.3 mg/m ³	Not applicable.

METHANOL

*Identified use name: Consumer Use as a fuel Indoor.
 Sector of end use: SU21
 Subsequent service life relevant for that use: No.
 Environmental Release Category: ERC08b
 Market sector by type of chemical product: PC13*

Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Oral	Not applicable.	Not applicable.	Not applicable.

Section 3.3 Environment Exposure estimation			
Contributing exposure scenario controlling environmental exposure for 1:			
	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m²/d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to Downstream User to evaluate if he works inside the boundaries set by the ES	
Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE.
Health	Exposure estimation and RISK CHARACTERISATION: Not applicable. The Consexpo model has been used to estimate consumer exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA	
Environment	Not applicable.
Health	Not applicable.
Additional guidance	Avoid contact with skin. Wear suitable gloves.: Chemical-resistant gloves. Wash skin surfaces thoroughly after contact. Keep container tightly closed.

METHANOL	<i>Identified use name: Consumer Use as a fuel Indoor. Sector of end use: SU21 Subsequent service life relevant for that use: No. Environmental Release Category: ERC08b Market sector by type of chemical product: PC13</i>
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Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors
Identified use name: Consumer Use as a fuel Outdoor.
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08e
Market sector by type of chemical product: PC13

Processes and activities covered by the exposure scenario Filling up cars and other vehicles at petrol stations

Assessment Method See Section 3

Section 2: Operational conditions and risk management measures**Section 2.1: Control of consumer exposure****Contributing exposure scenario controlling consumer exposure for 0: Using material as fuel sources, limited exposure to unburned product to be expected**

Concentration of substance in mixture or article Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: <15 min
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other given operational conditions affecting consumers exposure: Professional use Outdoor.
Conditions and measures related to personal protection and hygiene No personal respiratory protective equipment normally required.
Contributing scenarios: Operational conditions and risk management measures

Section 2.2: Control of environmental exposure**Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive indoor use of processing aids in open systems**

Product Characteristics: Not available.

Amounts used:

Fraction of EU tonnage used in region: Not available.

Regional use tonnage (tonnes/year): Not available.

Fraction of Regional tonnage used locally: Not available.

Annual site tonnage (tonnes/year): Not available.

Average Local Daily Tonnage (kg/day) Not available.

Maximum daily site tonnage (kg/day): Not available.

Frequency and duration of use:

Emission Days (days/year): Not available.

Environmental factors not influenced by risk management:

Local freshwater dilution factor: Not available.

Local marine water dilution factor: Not available.

Other operational conditions of use affecting environmental exposure:

Release fraction to air from process (initial release prior to RMM): Not available.

Release fraction to soil from process (initial release prior to RMM): Not available.

Release fraction to wastewater from process (initial release prior to RMM): Not available.

Conditions and measures related to municipal sewage treatment plant:

METHANOL

Identified use name: Consumer Use as a fuel Outdoor.
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08e
Market sector by type of chemical product: PC13

Estimated substance removal from wastewater via domestic sewage treatment (%): Not available.

Total efficiency of removal from wastewater after on-site and off-site (domestic treatment plant) RMMs (%): Not available.

Maximum allowable site tonnage (M_{safe}) based on release following total wastewater treatment removal (kg/d): Not available.

Assumed domestic sewage treatment plant flow (m³/d): Not available.

Section 3: Exposure estimation and reference to its source

Section 3.1: Exposure estimation - Consumers

Exposure estimation and reference to its source - Consumers: 2:

Contributing Scenario:	Frequency (1/Year):	Weight fraction of substance in the article::	Body weight:	Calculation method:
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Exposure estimation and reference to its source - Consumers: 0:

Inhalation :

Mode of release: Not applicable.

Exposure estimation and reference to its source - Consumers: 1:

Consumers: 1:

Exposure (minutes):	Application duration:	Amount/concentration applied (g):	Room volume (m ³):	Room volume x ventilation rate: (l/h):
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Release area (cm ²):	Temperature (°C):	Mass transfer rate:	Contributing Scenario Molecular weight (g/mole):	Uptake fraction (Update model):	Inhalation rate:
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Dermal:

Application methods: Not applicable.

Surface area (Skin contact area) cm ² :	Product amount (g):	Uptake fraction (Update model):	Inhalation event (mg/m ³):
Not applicable.	Not applicable.	Not applicable.	Not applicable.

Inhalation mg/m ³ (Concentration on day of exposure):	Dermal load (mg/cm ²):	Dermal External dose (mg/kg bw):	Dermal (Internal dose) mg/kg bw/day:
Not applicable.	Not applicable.	Not applicable.	Not applicable.

Dermal (External dose) mg/kg bw/day:	Inhalation event/Exposure mg/m ³ (Short term exposure):	Dermal systemic exposure (external dose) with gloves (90% efficiency) mg/kg bw/day (Long term exposure):	Inhalation (mg/kg/day) Long term exposure:
Not applicable.	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Exposure estimation-Consumers

Contributing exposure scenario controlling worker exposure for 0:

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	4.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Systemic, Oral	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	9.34 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Consumer Use as a fuel Outdoor.
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08e
Market sector by type of chemical product: PC13

Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Oral	Not applicable.	Not applicable.	Not applicable.

Section 3.3 Environment Exposure estimation			
Contributing exposure scenario controlling environmental exposure for 1:			
	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to Downstream User to evaluate if he works inside the boundaries set by the ES	
Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE.
Health	Exposure estimation and RISK CHARACTERISATION: Not applicable. The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA	
Environment	Not applicable.
Health	Not applicable.
Additional guidance	Not applicable.

Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Manufacture of substance; Use as an intermediate; Use as a process additive
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC04, ERC06a

Processes and activities covered by the exposure scenario Manufacture of the substance or use as a process chemical or extraction agent. Includes recycling/recovery, material transfers, storage, maintenance and loading (including marine vessel/barge, road/rail car and bulk container), sampling and associated laboratory activities.

Section 2: Operational conditions and risk management measures**Section 2.1 Control of worker exposure****Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: None.
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of both hands (480 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.

METHANOL

Identified use name: Manufacture of substance; Use as an intermediate; Use as a process additive
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC04, ERC06a

Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure

Contributing exposure scenario controlling worker exposure for 3: Use in batch and other process (synthesis) where opportunity for exposure arises

Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release:	None.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure

Contributing exposure scenario controlling worker exposure for 4: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Both hands (960 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure

Contributing exposure scenario controlling worker exposure for 5: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 97%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure

Contributing exposure scenario controlling worker exposure for 6: Use as laboratory reagent

Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of one hand (240 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

METHANOL

Identified use name: Manufacture of substance; Use as an intermediate; Use as a process additive
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC04, ERC06a

Contributing exposure scenario controlling environmental exposure for 0: Manufacture of substances**Amounts used:**

Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.

Frequency and duration of use:

Emission Days (days/year):	Not available.
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Environmental factors not influenced by risk management:

Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.

Other operational conditions of use affecting environmental exposure:

Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:

Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.

Organisational measures to prevent/limit release from site:**Conditions and measures related to municipal sewage treatment plant:****Contributing exposure scenario controlling environmental exposure for 1: Industrial use of processing aids in processes and products, not becoming part of articles****Amounts used:**

Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.

Frequency and duration of use:

Emission Days (days/year):	Not available.
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Environmental factors not influenced by risk management:

Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.

Other operational conditions of use affecting environmental exposure:

Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.

METHANOL

Identified use name: Manufacture of substance; Use as an intermediate; Use as a process additive
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC04, ERC06a

Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:	
Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.
Organisational measures to prevent/limit release from site:	
Conditions and measures related to municipal sewage treatment plant:	

Contributing exposure scenario controlling environmental exposure for 2: Industrial use resulting in manufacture of another substance (use of intermediates)

Amounts used:

Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.

Frequency and duration of use:

Emission Days (days/year):	Not available.
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Environmental factors not influenced by risk management:

Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.

Other operational conditions of use affecting environmental exposure:

Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:

Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.

Organisational measures to prevent/limit release from site:

Conditions and measures related to municipal sewage treatment plant:

METHANOL

Identified use name: Manufacture of substance; Use as an intermediate; Use as a process additive
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC04, ERC06a

Section 3: Exposure estimation

Section 3.1 Workers Exposure estimation
Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	0.01 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	0.05 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation
Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation
Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Manufacture of substance; Use as an intermediate; Use as a process additive
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC04, ERC06a

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 3: Use in batch and other process (synthesis) where opportunity for exposure arises**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 4: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 5: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.00 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	12.00 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Manufacture of substance; Use as an intermediate; Use as a process additive
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC04, ERC06a

Section 3.1 Workers Exposure estimation

Contributing exposure scenario controlling worker exposure for 6: Use as laboratory reagent

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 0: Manufacture of substances

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 1: Industrial use of processing aids in processes and products, not becoming part of articles

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Manufacture of substance; Use as an intermediate; Use as a process additive
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC04, ERC06a

	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 2: Industrial use resulting in manufacture of another substance (use of intermediates)

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Manufacture of substance; Use as an intermediate; Use as a process additive
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC04, ERC06a

Section 4: Guidance to check compliance with the exposure scenario

Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE. Exposure estimation and RISK CHARACTERISATION: Not applicable.
Health	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA

Environment	Not applicable.
Health	Not applicable.
Additional Good Practices	Not applicable.

METHANOL

Identified use name: Manufacture of substance; Use as an intermediate; Use as a process additive
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC04, ERC06a

Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Distribution of substance
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC02

Processes and activities covered by the exposure scenario Loading (including marine vessel/barge, rail/road car and IBC loading) and repacking (including drums and small packs) of substance, including its sampling, storage, unloading distribution and associated laboratory activities.

Section 2: Operational conditions and risk management measures**Section 2.1 Control of worker exposure****Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: None.
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of both hands (480 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 90%

METHANOL

Identified use name: Distribution of substance
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC02

Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.
Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 3: Use in batch and other process (synthesis) where opportunity for exposure arises	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release:	None.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.
Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 4: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Both hands (960 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.
Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 5: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 97%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.
Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 6: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

METHANOL

Identified use name: Distribution of substance
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC02

Contributing exposure scenario controlling environmental exposure for 0: Manufacture of substances**Amounts used:**

Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.

Frequency and duration of use:

Emission Days (days/year):	Not available.
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Environmental factors not influenced by risk management:

Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.

Other operational conditions of use affecting environmental exposure:

Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:

Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.

Organisational measures to prevent/limit release from site:**Conditions and measures related to municipal sewage treatment plant:****Contributing exposure scenario controlling environmental exposure for 1: Formulation of preparations*****Amounts used:**

Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.

Frequency and duration of use:

Emission Days (days/year):	Not available.
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Environmental factors not influenced by risk management:

Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.

Other operational conditions of use affecting environmental exposure:

Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.

METHANOL

Identified use name: Distribution of substance
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC02

Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:	
Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.
Organisational measures to prevent/limit release from site:	
Conditions and measures related to municipal sewage treatment plant:	

Section 3: Exposure estimation

Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	0.01 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	0.05 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Distribution of substance
 Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09
 Sector of end use: SU03, SU08, SU09
 Subsequent service life relevant for that use: No.
 Environmental Release Category: ERC01, ERC02

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 3: Use in batch and other process (synthesis) where opportunity for exposure arises**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 4: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Distribution of substance
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09

Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC02

Section 3.1 Workers Exposure estimation

Contributing exposure scenario controlling worker exposure for 5: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.00 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	12.00 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation

Contributing exposure scenario controlling worker exposure for 6: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.34 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 0: Manufacture of substances

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PEC _{stp}) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification

METHANOL

Identified use name: Distribution of substance
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC02

Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 1: Formulation of preparations*

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to check compliance with the exposure scenario

Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE.
Health	Exposure estimation and RISK CHARACTERISATION: Not applicable. The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA

Environment	Not applicable.
Health	Not applicable.
Additional Good Practices	Not applicable.

METHANOL

Identified use name: Distribution of substance
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01, ERC02

Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Formulation and (re)packing of substances and mixtures
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15
Sector of end use: SU03, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02

Processes and activities covered by the exposure scenario Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tableting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.

Section 2: Operational conditions and risk management measures**Section 2.1 Control of worker exposure****Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: None.
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of both hands (480 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.

METHANOL

Identified use name: Formulation and (re)packing of substances and mixtures
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15
Sector of end use: SU03, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02

Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 3: Use in batch and other process (synthesis) where opportunity for exposure arises	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release:	None.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 4: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Both hands (960 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 5: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 97%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 6: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

METHANOL	Identified use name: Formulation and (re)packing of substances and mixtures
	Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15
	Sector of end use: SU03, SU10
	Subsequent service life relevant for that use: No.
	Environmental Release Category: ERC02
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Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 7: Use as laboratory reagent**

Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of one hand (240 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.2: Control of environmental exposure**Contributing exposure scenario controlling environmental exposure for 0: Formulation of preparations***

Amounts used:	
Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.
Frequency and duration of use:	
Emission Days (days/year):	Not available.
Environmental factors not influenced by risk management:	
Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.
Other operational conditions of use affecting environmental exposure:	
Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:	
Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.
Organisational measures to prevent/limit release from site:	
Conditions and measures related to municipal sewage treatment plant:	

Section 3: Exposure estimation**METHANOL**

Identified use name: Formulation and (re)packing of substances and mixtures
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15
Sector of end use: SU03, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	0.01 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	0.05 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL**Identified use name: Formulation and (re)packing of substances and mixtures****Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15****Sector of end use: SU03, SU10****Subsequent service life relevant for that use: No.****Environmental Release Category: ERC02**

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 3: Use in batch and other process (synthesis) where opportunity for exposure arises**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 4: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 5: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.00 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	12.00 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL**Identified use name: Formulation and (re)packing of substances and mixtures****Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15****Sector of end use: SU03, SU10****Subsequent service life relevant for that use: No.****Environmental Release Category: ERC02**

Section 3.1 Workers Exposure estimation

Contributing exposure scenario controlling worker exposure for 6: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.34 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation

Contributing exposure scenario controlling worker exposure for 7: Use as laboratory reagent

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 0: Formulation of preparations*

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Formulation and (re)packing of substances and mixtures
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15
Sector of end use: SU03, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02

	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m²/d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to check compliance with the exposure scenario

Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE. Exposure estimation and RISK CHARACTERISATION: Not applicable.
Health	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA

Environment	Not applicable.
Health	Not applicable.
Additional Good Practices	Not applicable.

METHANOL

Identified use name: Formulation and (re)packing of substances and mixtures
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15
Sector of end use: SU03, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02

Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Use as a fuel - industrial setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b

Processes and activities covered by the exposure scenario Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste.

Section 2: Operational conditions and risk management measures**Section 2.1 Control of worker exposure****Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: None.
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of both hands (480 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 90%

METHANOL

Identified use name: Use as a fuel - industrial setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b

Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.
Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 3: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Both hands (960 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.
Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 4: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 97%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.
Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 5: Using material as fuel sources, limited exposure to unburned product to be expected	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of one hand (240 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.
Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 6: Hand-mixing with intimate contact and only PPE available	
Concentration of substance in product:	Concentration of substance in product <=10%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: 1-4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Both hands and forearms (1980 cm ²)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release:	None.
Ventilation control measures:	None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Personal protection:	Wear suitable gloves.
Respiratory protection:	None.

METHANOL

Identified use name: Use as a fuel - industrial setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b

Section 2.2: Control of environmental exposure

Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive indoor use of reactive substances in open systems

Amounts used:

Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.

Frequency and duration of use:

Emission Days (days/year):	Not available.
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Environmental factors not influenced by risk management:

Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.

Other operational conditions of use affecting environmental exposure:

Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:

Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.

Organisational measures to prevent/limit release from site:

Conditions and measures related to municipal sewage treatment plant:

Section 3: Exposure estimation

Section 3.1 Workers Exposure estimation

Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	0.01 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	0.05 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Use as a fuel - industrial setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 3: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Use as a fuel - industrial setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 4: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.00 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	12.00 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 5: Using material as fuel sources, limited exposure to unburned product to be expected**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 6: Hand-mixing with intimate contact and only PPE available**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	14.14 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	20.00 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	14.14 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	40.00 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Use as a fuel - industrial setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive indoor use of reactive substances in open systems

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m²/d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to check compliance with the exposure scenario

Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE. Exposure estimation and RISK CHARACTERISATION: Not applicable.
Health	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA

Environment	Not applicable.
Health	Not applicable.
Additional Good Practices	Not applicable.

METHANOL

Identified use name: Use as a fuel - industrial setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b

Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Use as a fuel - professional setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b, ERC08e

Processes and activities covered by the exposure scenario Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste.

Section 2: Operational conditions and risk management measures**Section 2.1 Control of worker exposure****Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Professional use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: None.
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of both hands (480 cm²)
Other operational conditions affecting worker exposure: Professional use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 80%
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Professional use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 80%

METHANOL

Identified use name: Use as a fuel - professional setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b, ERC08e

Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.
Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 3: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities	
Concentration of substance in product:	Covers percentage substance in the product up to 5%.
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Both hands (960 cm ²)
Other operational conditions affecting worker exposure:	Professional use Indoor use.
Ventilation control measures:	None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.
Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 4: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	
Concentration of substance in product:	Covers percentage substance in the product up to 5%.
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Professional use Indoor use.
Ventilation control measures:	None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.
Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 5: Using material as fuel sources, limited exposure to unburned product to be expected	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of one hand (240 cm ²)
Other operational conditions affecting worker exposure:	Professional use Indoor use.
Ventilation control measures:	None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.
Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 6: Hand-mixing with intimate contact and only PPE available	
Concentration of substance in product:	Concentration of substance in product <=10%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: 1-4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Both hands and forearms (1980 cm ²)
Other operational conditions affecting worker exposure:	Professional use Indoor use.
Technical conditions and measures at process level (source) to prevent release:	None.
Ventilation control measures:	None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Personal protection:	Wear suitable gloves.
Respiratory protection:	None.

METHANOL

Identified use name: Use as a fuel - professional setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b, ERC08e

Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive indoor use of reactive substances in open systems**Amounts used:**

Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.

Frequency and duration of use:

Emission Days (days/year):	Not available.
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Environmental factors not influenced by risk management:

Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.

Other operational conditions of use affecting environmental exposure:

Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:

Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.

Organisational measures to prevent/limit release from site:**Conditions and measures related to municipal sewage treatment plant:****Contributing exposure scenario controlling environmental exposure for 1: Wide dispersive outdoor use of reactive substances in open systems****Amounts used:**

Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.

Frequency and duration of use:

Emission Days (days/year):	Not available.
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Environmental factors not influenced by risk management:

Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.

Other operational conditions of use affecting environmental exposure:

Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.

METHANOL

Identified use name: Use as a fuel - professional setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b, ERC08e

Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:	
Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.
Organisational measures to prevent/limit release from site:	
Conditions and measures related to municipal sewage treatment plant:	

Section 3: Exposure estimation

Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	0.13 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	0.53 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Use as a fuel - professional setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b, ERC08e

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	106.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 3: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.68 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.68 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 4: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	16.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	33.34 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Use as a fuel - professional setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19

Sector of end use: SU22

Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b, ERC08e

Section 3.1 Workers Exposure estimation

Contributing exposure scenario controlling worker exposure for 5: Using material as fuel sources, limited exposure to unburned product to be expected

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	133.34 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation

Contributing exposure scenario controlling worker exposure for 6: Hand-mixing with intimate contact and only PPE available

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	14.14 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	40.00 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	14.14 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	80.00 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive indoor use of reactive substances in open systems

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PEC _{stp}) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification

METHANOL

Identified use name: Use as a fuel - professional setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19

Sector of end use: SU22

Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b, ERC08e

Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 1: Wide dispersive outdoor use of reactive substances in open systems

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to check compliance with the exposure scenario

Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE. Exposure estimation and RISK CHARACTERISATION: Not applicable.
Health	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA

Environment	Not applicable.
Health	Not applicable.
Additional Good Practices	Not applicable.

METHANOL

Identified use name: Use as a fuel - professional setting
Process Category: PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16, PROC19
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08b, ERC08e

Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Industrial Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC10, PROC13
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04

Processes and activities covered by the exposure scenario Covers the use as a component of cleaning products including transfer from storage, pouring/unloading from drums or containers. Exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping, automated and by hand), related equipment cleaning and maintenance.

Section 2: Operational conditions and risk management measures**Section 2.1 Control of worker exposure****Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: None.
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of both hands (480 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.

METHANOL

Identified use name: Industrial Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC10, PROC13
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04

Technical conditions and measures at process level (source) to prevent release:	None.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure

Contributing exposure scenario controlling worker exposure for 3: Use in batch and other process (synthesis) where opportunity for exposure arises

Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm2)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release:	None.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure

Contributing exposure scenario controlling worker exposure for 4: Industrial spraying

Exposure assessment instrument/tool/method: Stoffenmanager v3.5	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in the Stoffenmanager
Frequency and duration of use:	Exposure duration per day: 8 hours Frequency: 4-5 days per week
Human factors not influenced by risk management:	Not relevant in the Stoffenmanager
Other operational conditions affecting worker exposure:	Indoor use. Covers use in room size of >1000 m ³ Work within one meter of the source: No.
Technical conditions and measures at process level (source) to prevent release:	None.
Technical conditions and measures to control dispersion from source towards the worker:	Segregation: Work within one meter of the source: No.
Ventilation control measures:	Immission controls: Work in a spray cabin without specific ventilation system None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Clean equipment and the work area every day.: Applicable
Respiratory protection:	None.

Section 2.1 Control of worker exposure

Contributing exposure scenario controlling worker exposure for 5: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Both hands (960 cm2)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure

Contributing exposure scenario controlling worker exposure for 6: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm2)
Other operational conditions affecting worker exposure:	Industrial use Indoor use.

METHANOL

Identified use name: Industrial Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC10, PROC13
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04

Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 97%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 7: Roller application or brushing	
Concentration of substance in product:	Concentration of substance in product 80%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Both hands (960 cm2)
Other operational conditions affecting worker exposure:	Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 8: Treatment of articles by dipping and pouring	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm2)
Other operational conditions affecting worker exposure:	Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.2: Control of environmental exposure

Contributing exposure scenario controlling environmental exposure for 0: Industrial use of processing aids in processes and products, not becoming part of articles	
Amounts used:	
Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.
Frequency and duration of use:	
Emission Days (days/year):	Not available.
Environmental factors not influenced by risk management:	
Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.
Other operational conditions of use affecting environmental exposure:	
Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:	
Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.

METHANOL

Identified use name: Industrial Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC10, PROC13
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04

If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):

Not available.

Organisational measures to prevent/limit release from site:

Conditions and measures related to municipal sewage treatment plant:

Section 3: Exposure estimation

Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	0.01 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	0.05 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.33 mg/m ³	Not applicable.

METHANOL

Identified use name: Industrial Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC10, PROC13
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04

Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation
Contributing exposure scenario controlling worker exposure for 3: Use in batch and other process (synthesis) where opportunity for exposure arises

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation
Contributing exposure scenario controlling worker exposure for 4: Industrial spraying

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	141.1 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	141.1 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation
Contributing exposure scenario controlling worker exposure for 5: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Industrial Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC10, PROC13
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04

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Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 6: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.00 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	12.00 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 7: Roller application or brushing**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	21.94 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	21.94 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.34 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 8: Treatment of articles by dipping and pouring**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Industrial Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC10, PROC13
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 0: Industrial use of processing aids in processes and products, not becoming part of articles

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m2/d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to check compliance with the exposure scenario

Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE. Exposure estimation and RISK CHARACTERISATION: Not applicable.
Health	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA

Environment	Not applicable.
Health	Not applicable.
Additional Good Practices	Not applicable.

METHANOL

Identified use name: Industrial Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC10, PROC13
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04

Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Professional Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d

Processes and activities covered by the exposure scenario Covers the use as a component of cleaning products including pouring/unloading from drums or containers; and exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping automated and by hand).

Section 2: Operational conditions and risk management measures**Section 2.1 Control of worker exposure****Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Professional use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: None.
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of both hands (480 cm²)
Other operational conditions affecting worker exposure: Professional use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 80%
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Professional use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.

METHANOL

Identified use name: Professional Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d

Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 80%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 3: Use in batch and other process (synthesis) where opportunity for exposure arises	
Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: 1-4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Professional use Indoor use.
Technical conditions and measures at process level (source) to prevent release:	None.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 80%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 4: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities	
Concentration of substance in product:	Covers percentage substance in the product up to 5%.
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Both hands (960 cm ²)
Other operational conditions affecting worker exposure:	Professional use Indoor use.
Ventilation control measures:	None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 5: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	
Concentration of substance in product:	Covers percentage substance in the product up to 5%.
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Professional use Indoor use.
Ventilation control measures:	None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure	
Contributing exposure scenario controlling worker exposure for 6: Roller application or brushing	
Concentration of substance in product:	Covers percentage substance in the product up to 5%.
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Both hands (960 cm ²)
Other operational conditions affecting worker exposure:	Indoor use.
Ventilation control measures:	None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

METHANOL

Identified use name: Professional Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 7: Non industrial spraying**

Exposure assessment instrument/tool/method: Stoffenmanager v3.5, Riskofderm v2.1

Concentration of substance in product:	Concentration of substance in product <=3%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	5 L/min
Frequency and duration of use:	Exposure per shift: 200 min - Value taken from Riskofderm; Not relevant in the Stoffenmanager Frequency: 4-5 days per week - Value taken from Stoffenmanager
Human factors not influenced by risk management:	Exposed skin surfaces: Both hands (960 cm ²)
Other operational conditions affecting worker exposure:	Indoor use. Covers use in room size of 100-1000 m ³
Technical conditions and measures at process level (source) to prevent release:	Segregation: Work within one meter of the source: No. Use of a long spray boom is necessary
Ventilation control measures:	None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Clean equipment and the work area every day.: Not applicable.
Personal protection:	Wear suitable gloves. with a minimum efficacy of 90%
Respiratory protection:	None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 8: Treatment of articles by dipping and pouring**

Concentration of substance in product:	Concentration of substance in product 100%
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Indoor use.
Ventilation control measures:	Use the following local exhaust ventilation types: Effectiveness of containment: 80%
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.2: Control of environmental exposure**Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive indoor use of processing aids in open systems**

Amounts used:	
Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.
Frequency and duration of use:	
Emission Days (days/year):	Not available.
Environmental factors not influenced by risk management:	
Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.
Other operational conditions of use affecting environmental exposure:	
Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:	
Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.

METHANOL

Identified use name: Professional Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d

If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%): Not available.

Organisational measures to prevent/limit release from site:

Conditions and measures related to municipal sewage treatment plant:

Contributing exposure scenario controlling environmental exposure for 1: Wide dispersive outdoor use of processing aids in open systems

Amounts used:

Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.

Frequency and duration of use:

Emission Days (days/year):	Not available.
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Environmental factors not influenced by risk management:

Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.

Other operational conditions of use affecting environmental exposure:

Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:

Treat air emission to provide a typical removal efficiency of (%) :	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.

Organisational measures to prevent/limit release from site:

Conditions and measures related to municipal sewage treatment plant:

Section 3: Exposure estimation

Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 0: Use in closed process, no likelihood of exposure			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	0.13 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	0.53 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.

METHANOL

*Identified use name: Professional Use in Cleaning Agents
 Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13
 Sector of end use: SU22
 Subsequent service life relevant for that use: No.
 Environmental Release Category: ERC08a, ERC08d*

Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 1: Use in closed, continuous process with occasional controlled exposure			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 2: Use in closed batch process (synthesis or formulation)			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	106.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 3: Use in batch and other process (synthesis) where opportunity for exposure arises			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	40.00 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	160.00 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 4: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.68 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.68 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 5: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	16.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	33.34 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation**Contributing exposure scenario controlling worker exposure for 6: Roller application or brushing**

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	21.94 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Professional Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d

Section 3.1 Workers Exposure estimation

Contributing exposure scenario controlling worker exposure for 7: Non industrial spraying

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	7.24 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	134.1 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	7.24 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	134.1 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation

Contributing exposure scenario controlling worker exposure for 8: Treatment of articles by dipping and pouring

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	13.71 mg/kg	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	133.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive indoor use of processing aids in open systems

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.

METHANOL

*Identified use name: Professional Use in Cleaning Agents
 Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13
 Sector of end use: SU22
 Subsequent service life relevant for that use: No.
 Environmental Release Category: ERC08a, ERC08d*

Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 1: Wide dispersive outdoor use of processing aids in open systems

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to check compliance with the exposure scenario

Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE. Exposure estimation and RISK CHARACTERISATION: Not applicable.
Health	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA

Environment	Not applicable.
Health	Not applicable.
Additional Good Practices	Not applicable.

METHANOL

*Identified use name: Professional Use in Cleaning Agents
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d*

Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Use as laboratory reagent - Industrial
Process Category: PROC10, PROC15
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04

Processes and activities covered by the exposure scenario Use of the substance within laboratory settings, including material transfers and equipment cleaning.

Section 2: Operational conditions and risk management measures**Section 2.1 Control of worker exposure****Contributing exposure scenario controlling worker exposure for 0: Roller application or brushing**

Concentration of substance in product: Concentration of substance in product 80%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Both hands (960 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 1: Use as laboratory reagent**

Concentration of substance in product: Concentration of substance in product 80%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.2: Control of environmental exposure**Contributing exposure scenario controlling environmental exposure for 0: Industrial use of processing aids in processes and products, not becoming part of articles**

Amounts used:
Fraction of EU tonnage used in region: Not available.
Regional use tonnage (tonnes/year): Not available.
Fraction of Regional tonnage used locally: Not available.
Annual site tonnage (tonnes/year): Not available.
Average Local Daily Tonnage (kg/day): Not available.
Maximum daily site tonnage (kg/day): Not available.
Frequency and duration of use:
Emission Days (days/year): Not available.
Environmental factors not influenced by risk management:
Local freshwater dilution factor: Not available.

METHANOL

Identified use name: Use as laboratory reagent - Industrial
Process Category: PROC10, PROC15
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04

Local marine water dilution factor:	Not available.
Other operational conditions of use affecting environmental exposure:	
Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:	
Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.

Organisational measures to prevent/limit release from site:
Conditions and measures related to municipal sewage treatment plant:

Section 3: Exposure estimation

Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 0: Roller application or brushing			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	21.94 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	21.94 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	53.34 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 1: Use as laboratory reagent			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Use as laboratory reagent - Industrial
Process Category: PROC10, PROC15
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04

Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
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Section 3.2 Environment Exposure estimation			
Contributing exposure scenario controlling environmental exposure for 0: Industrial use of processing aids in processes and products, not becoming part of articles			
	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to check compliance with the exposure scenario

Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE. Exposure estimation and RISK CHARACTERISATION: Not applicable.
Health	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA

Environment	Not applicable.
Health	Not applicable.
Additional Good Practices	Not applicable.

METHANOL	<i>Identified use name: Use as laboratory reagent - Industrial Process Category: PROC10, PROC15 Sector of end use: SU03 Subsequent service life relevant for that use: No. Environmental Release Category: ERC04</i>
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Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Use as laboratory reagent - Professional
Process Category: PROC10, PROC15
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a

Processes and activities covered by the exposure scenario Use of small quantities within laboratory settings, including material transfers and equipment cleaning.

Section 2: Operational conditions and risk management measures**Section 2.1 Control of worker exposure****Contributing exposure scenario controlling worker exposure for 0: Roller application or brushing**

Concentration of substance in product: Covers percentage substance in the product up to 5%.
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Both hands (960 cm²)
Other operational conditions affecting worker exposure: Professional use Indoor use.
Ventilation control measures: None.
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 1: Use as laboratory reagent**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of one hand (240 cm²)
Other operational conditions affecting worker exposure: Professional use Indoor use.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 80%
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.2: Control of environmental exposure**Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive indoor use of processing aids in open systems**

Amounts used:
Fraction of EU tonnage used in region: Not available.
Regional use tonnage (tonnes/year): Not available.
Fraction of Regional tonnage used locally: Not available.
Annual site tonnage (tonnes/year): Not available.
Average Local Daily Tonnage (kg/day): Not available.
Maximum daily site tonnage (kg/day): Not available.
Frequency and duration of use:
Emission Days (days/year): Not available.
Environmental factors not influenced by risk management:
Local freshwater dilution factor: Not available.
Local marine water dilution factor: Not available.

METHANOL

Identified use name: Use as laboratory reagent - Professional
Process Category: PROC10, PROC15
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a

Other operational conditions of use affecting environmental exposure:

Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:

Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.

Organisational measures to prevent/limit release from site:

Conditions and measures related to municipal sewage treatment plant:

Section 3: Exposure estimation

Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 0: Roller application or brushing			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Section 3.1 Workers Exposure estimation			
Contributing exposure scenario controlling worker exposure for 1: Use as laboratory reagent			
Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	13.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Use as laboratory reagent - Professional Process Category: PROC10, PROC15 Sector of end use: SU22 Subsequent service life relevant for that use: No. Environmental Release Category: ERC08a

Short term exposure, Local, Inhalable

Not applicable.

Not applicable.

Not applicable.

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive indoor use of processing aids in open systems

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.		Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to check compliance with the exposure scenario

Environment

Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE.
Exposure estimation and RISK CHARACTERISATION: Not applicable.

Health

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA

Environment

Not applicable.

Health

Not applicable.

Additional Good Practices

Not applicable.

METHANOL

Identified use name: Use as laboratory reagent - Professional
Process Category: PROC10, PROC15
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a

Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Water treatment chemicals
Process Category: PROC02
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09b

Processes and activities covered by the exposure scenario Covers the use of the substance for the treatment of water at industrial facilities in closed or contained systems including incidental exposures during material transfers and equipment cleaning.

Section 2: Operational conditions and risk management measures**Section 2.1 Control of worker exposure****Contributing exposure scenario controlling worker exposure for 0: Use in closed, continuous process with occasional controlled exposure**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of both hands (480 cm²)
Other operational conditions affecting worker exposure: Industrial use Indoor use.
Technical conditions and measures at process level (source) to prevent release: None.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 90%
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.2: Control of environmental exposure**Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive outdoor use of substances in closed systems**

Amounts used:
Fraction of EU tonnage used in region: Not available.
Regional use tonnage (tonnes/year): Not available.
Fraction of Regional tonnage used locally: Not available.
Annual site tonnage (tonnes/year): Not available.
Average Local Daily Tonnage (kg/day): Not available.
Maximum daily site tonnage (kg/day): Not available.
Frequency and duration of use:
Emission Days (days/year): Not available.
Environmental factors not influenced by risk management:
Local freshwater dilution factor: Not available.
Local marine water dilution factor: Not available.
Other operational conditions of use affecting environmental exposure:
Release fraction to air from process (initial release prior to RMM): Not available.
Release fraction to soil from process (initial release prior to RMM): Not available.
Release fraction to wastewater from process (initial release prior to RMM): Not available.
Release fraction to air from wide dispersive use (regional only): Not available.
Release fraction to wastewater from wide dispersive use: Not available.

METHANOL

Identified use name: Water treatment chemicals
Process Category: PROC02
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09b

Release fraction to soil from wide dispersive use (regional only): Not available.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:

Treat air emission to provide a typical removal efficiency of (%): Not available.
 Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%): Not available.
 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%): Not available.

Organisational measures to prevent/limit release from site:

Conditions and measures related to municipal sewage treatment plant:

Section 3: Exposure estimation

Section 3.1 Workers Exposure estimation
Contributing exposure scenario controlling worker exposure for 0: Use in closed, continuous process with occasional controlled exposure

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	6.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	1.37 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	26.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Environment Exposure estimation
Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive outdoor use of substances in closed systems

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.

METHANOL

*Identified use name: Water treatment chemicals
 Process Category: PROC02
 Sector of end use: SU03
 Subsequent service life relevant for that use: No.
 Environmental Release Category: ERC09b*

Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to check compliance with the exposure scenario

Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE. Exposure estimation and RISK CHARACTERISATION: Not applicable.
Health	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA

Environment	Not applicable.
Health	Not applicable.
Additional Good Practices	Not applicable.

METHANOL

*Identified use name: Water treatment chemicals
 Process Category: PROC02
 Sector of end use: SU03
 Subsequent service life relevant for that use: No.
 Environmental Release Category: ERC09b*

Identification of the substance or mixture

Product definition Mono-constituent substance
Product name METHANOL

Section 1: Title

Short title of the exposure scenario/List of use descriptors **Identified use name:** Use in Oil field drilling and production operations (SU 22). - Professional
Process Category: PROC04, PROC05, PROC08a, PROC08b
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09b

Processes and activities covered by the exposure scenario Oil field well drilling and production operations (including drilling muds and well cleaning) including material transfers, on-site formulation, well head operations, shaker room activities and related maintenance.

Section 2: Operational conditions and risk management measures**Section 2.1 Control of worker exposure****Contributing exposure scenario controlling worker exposure for 0: Use in batch and other process (synthesis) where opportunity for exposure arises**

Concentration of substance in product: Concentration of substance in product 100%
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: 1-4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of both hands (480 cm2)
Other operational conditions affecting worker exposure: Professional use. Indoor use.
Technical conditions and measures to control dispersion from source towards the worker: None.
Ventilation control measures: Use the following local exhaust ventilation types: Effectiveness of containment: 80%
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 1: Mixing or blending in batch processes for formulation of preparations* and articles (multistage and/or significant contact)**

Concentration of substance in product: Covers percentage substance in the product up to 5%.
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Palm of both hands (480 cm2)
Other operational conditions affecting worker exposure: Professional use. Indoor use.
Technical conditions and measures to control dispersion from source towards the worker: None.
Ventilation control measures: None.
Organisational measures to prevent/limit releases, dispersion and exposure: Not relevant in ECETOC TRA
Respiratory protection: None.

Section 2.1 Control of worker exposure**Contributing exposure scenario controlling worker exposure for 2: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities**

Concentration of substance in product: Covers percentage substance in the product up to 5%.
Physical state: Liquid. Vapour pressure 169.27 hPa
Amounts used: Not relevant in ECETOC TRA
Frequency and duration of use: Exposure duration per day: >4 hours
Frequency: <=240 days per year
Human factors not influenced by risk management: Exposed skin surfaces: Both hands (960 cm2)
Other operational conditions affecting worker exposure: Professional use. Indoor use.

METHANOL

Identified use name: Use in Oil field drilling and production operations (SU 22). - Professional
Process Category: PROC04, PROC05, PROC08a, PROC08b
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09b

Technical conditions and measures to control dispersion from source towards the worker:	None.
Ventilation control measures:	None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.1 Control of worker exposure

Contributing exposure scenario controlling worker exposure for 3: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

Concentration of substance in product:	Covers percentage substance in the product up to 5%.
Physical state:	Liquid. Vapour pressure 169.27 hPa
Amounts used:	Not relevant in ECETOC TRA
Frequency and duration of use:	Exposure duration per day: >4 hours Frequency: <=240 days per year
Human factors not influenced by risk management:	Exposed skin surfaces: Palm of both hands (480 cm ²)
Other operational conditions affecting worker exposure:	Professional use. Indoor use.
Technical conditions and measures to control dispersion from source towards the worker:	None.
Ventilation control measures:	None.
Organisational measures to prevent/limit releases, dispersion and exposure:	Not relevant in ECETOC TRA
Respiratory protection:	None.

Section 2.2: Control of environmental exposure

Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive outdoor use of substances in closed systems

Amounts used:	
Fraction of EU tonnage used in region:	Not available.
Regional use tonnage (tonnes/year):	Not available.
Fraction of Regional tonnage used locally:	Not available.
Annual site tonnage (tonnes/year):	Not available.
Average Local Daily Tonnage (kg/day):	Not available.
Maximum daily site tonnage (kg/day):	Not available.
Frequency and duration of use:	
Emission Days (days/year):	Not available.
Environmental factors not influenced by risk management:	
Local freshwater dilution factor:	Not available.
Local marine water dilution factor:	Not available.
Other operational conditions of use affecting environmental exposure:	
Release fraction to air from process (initial release prior to RMM):	Not available.
Release fraction to soil from process (initial release prior to RMM):	Not available.
Release fraction to wastewater from process (initial release prior to RMM):	Not available.
Release fraction to air from wide dispersive use (regional only):	Not available.
Release fraction to wastewater from wide dispersive use:	Not available.
Release fraction to soil from wide dispersive use (regional only):	Not available.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:	
Treat air emission to provide a typical removal efficiency of (%):	Not available.
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of ³ (%):	Not available.
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ³ (%):	Not available.
Organisational measures to prevent/limit release from site:	
Conditions and measures related to municipal sewage treatment plant:	

METHANOL

Identified use name: Use in Oil field drilling and production operations (SU 22). - Professional
Process Category: PROC04, PROC05, PROC08a, PROC08b
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09b

Section 3: Exposure estimation

Section 3.1 Workers Exposure estimation
Contributing exposure scenario controlling worker exposure for 0: Use in batch and other process (synthesis) where opportunity for exposure arises

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	40.00 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	6.86 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	160.00 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation
Contributing exposure scenario controlling worker exposure for 1: Mixing or blending in batch processes for formulation of preparations* and articles (multistage and/or significant contact)

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.68 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.68 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.1 Workers Exposure estimation
Contributing exposure scenario controlling worker exposure for 2: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.68 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	33.33 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.68 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	66.67 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

METHANOL

Identified use name: Use in Oil field drilling and production operations (SU 22). - Professional
Process Category: PROC04, PROC05, PROC08a, PROC08b
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09b

Section 3.1 Workers Exposure estimation

Contributing exposure scenario controlling worker exposure for 3: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

Route of exposure	Contributing scenarios	Dose/Concentration	Justification
Long term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Long term exposure, Systemic, Inhalable	Not applicable.	16.67 mg/m ³	Not applicable.
Long term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Long term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Systemic, Dermal	Not applicable.	0.34 mg/kg bw/day	Not applicable.
Short term exposure, Systemic, Inhalable	Not applicable.	33.34 mg/m ³	Not applicable.
Short term exposure, Systemic, Combined	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Dermal	Not applicable.	Not applicable.	Not applicable.
Short term exposure, Local, Inhalable	Not applicable.	Not applicable.	Not applicable.

Section 3.2 Environment Exposure estimation

Contributing exposure scenario controlling environmental exposure for 0: Wide dispersive outdoor use of substances in closed systems

	Release from point source (local exposure estimation) kg/day	Total release for regional exposure estimation kg/day	Justification
Waste water	Not applicable.	Not applicable.	Not applicable.
Surface water	Not applicable.	Not applicable.	Not applicable.
air (direct + STP)	Not applicable.	Not applicable.	Not applicable.
Soil (direct releases only)	Not applicable.	Not applicable.	Not applicable.
	Value	Justification	
Concentration in sewage (PECstp) mg/l	Not applicable.	Not applicable.	
Concentration in sewage sludge mg/kg dwt	Not applicable.	Not applicable.	
	Local concentration	PEC aquatic (local+regional)	Justification
Fresh water mg/l	Not applicable.	Not applicable.	Not applicable.
Marine water mg/l	Not applicable.	Not applicable.	Not applicable.
Intermittent release. mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC sediment (local+regional)	Justification
Fresh water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Marine water sediment mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC soil (local+regional)	Justification
Agricultural soil averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Grassland averaged mg/kg dwt	Not applicable.	Not applicable.	Not applicable.
Groundwater mg/l	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC air (local+regional)	Justification
During emission mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual average mg/m ³	Not applicable.	Not applicable.	Not applicable.
Annual deposition mg/m ² /d	Not applicable.	Not applicable.	Not applicable.
	Local concentration	PEC aquatic (local+regional)	Justification
Micro-organism mg/l	Not applicable.	Not applicable.	Not applicable.

Section 4: Guidance to check compliance with the exposure scenario

Environment	Chemical Safety Assessment: NON-HAZARDOUS SUBSTANCE.
Health	Exposure estimation and RISK CHARACTERISATION: Not applicable. The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 5. Remarks: Additional good practice advice beyond the REACH CSA

Environment	Not applicable.
Health	Not applicable.
Additional Good Practices	Not applicable.

METHANOL

Identified use name: Use in Oil field drilling and production operations (SU 22). - Professional
Process Category: PROC04, PROC05, PROC08a, PROC08b
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09b