

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supersedes date 05-Dec-2022

Revision date 09-May-2024

Revision Number 8

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

1.1. Product identifier

Product Code(s)	11011
Safety data sheet number	11011
Product Name	1-METHOXYPROPAN-2-OL
Index No	603-064-00-3
EC Number	203-539-1
CAS No	107-98-2
Synonyms	PM, DOWANOL PM, METHOXYPROPANOL PM, DOWANOL PM GLYCOL ETHER, ADDITIVE CA 141 E, METHOXYPROPANOL, ADDITIVE CA 141 E-C4, DT M250 DILUTER FOR SHADES
Pure substance/mixture	Substance
Contains 1-METHOXY-2-PROPANOL	
Molecular weight	90.1 g/mol

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

Recommended use	Manufacture of substance Industrial use Professional use Consumer use Intermediate Formulation or re-packing: Formulation & (re)packing of substances and mixtures. Coatings Solvent Cleaning agent Additive for Agrochemicals Use in de-icing and anti-icing fluids Cosmetics Personal care Perfumes, fragrances For further information, see attached Exposure Scenario
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1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address	SDS.EMEA@univarsolutions.com
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

Emergency Telephone	SGS - +32 (0)3 575 55 55 (24h)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flammable liquids	Category 3 - (H226)
Specific target organ toxicity — single exposure	Category 3 - (H336)
Category 3 Narcotic effects	

2.2. Label elements

Contains 1-METHOXY-2-PROPANOL



Signal word

Warning

Hazard statements

H336 - May cause drowsiness or dizziness

H226 - Flammable liquid and vapour

Precautionary statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P312 - Call a POISON CENTER or doctor if you feel unwell

P370 + P378 - In case of fire: Use dry chemical, CO₂, water spray or alcohol-resistant foam to extinguish

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
1-METHOXY-2-PROPANOL 107-98-2	>= 99.5 %	203-539-1 (603-064-00-3)	-	STOT SE 3 (H336) Flam. Liq. 3 (H226)	-	-	-
2-METHOXYPROPANOL 1589-47-5	< 0.3 %	216-455-5 (603-106-00-0)	-	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Repr. 1B (H360D) STOT SE 3 (H335) Flam. Liq. 3 (H226)	-	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration >= 0.1% (UK REACH Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

First aid personnel should wear appropriate protective equipment during any rescue. Use personal protection recommended in Section 8.

Inhalation

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. If breathing is irregular or stopped, administer artificial respiration. Get medical attention if symptoms occur.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms occur.

Skin contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if symptoms occur.

Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting without medical advice. Get medical attention if symptoms occur.
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4.2. Most important symptoms and effects, both acute and delayed

Inhalation	May cause drowsiness or dizziness.
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Eyes	May cause slight eye irritation.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Dry chemical, CO2, alcohol-resistant foam or water spray.
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Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
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Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
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5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	When heated and in case of fire, toxic vapours/gases may be formed. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. When product is stored in closed containers, a flammable atmosphere can develop. Ground and bond container and receiving equipment. Take precautionary measures against static discharge. Vapours are heavier than air and may travel along the floor and in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember. Flammable concentrations of vapor can accumulate at temperatures above flash point; see Section 9. Flammable mixtures may exist within the vapor space of containers at room temperature.
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Hazardous combustion products	Carbon oxides.
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5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with skin, eyes and inhalation of vapours. Evacuate personnel to safe areas. Keep unnecessary and unprotected personnel from entering. Keep people away from and upwind of spill/leak. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Vapours may form explosive mixtures with air. Do not allow run-off from fire-fighting to enter drains or water courses.
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Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
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For emergency responders	Use personal protection recommended in Section 8.
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6.2. Environmental precautions

Environmental precautions	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
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6.3. Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
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Methods for cleaning up	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Take up mechanically, placing in appropriate containers for disposal. Ground
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and bond containers when transferring material. Use nonsparking tools and explosion-proof lamps and electric appliances. If available, use foam to smother or suppress.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with skin, eyes and inhalation of vapours. Wash skin thoroughly after handling. Keep container closed when not in use. Never use air pressure for transferring product. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Vapours are heavier than air and may travel along the floor and in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember. Ground and bond container and receiving equipment. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Use spark-proof tools and explosion-proof equipment. This product is a poor conductor of electricity and can become electrostatically charged, even in bonded or grounded equipment. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Handling operations that can promote accumulation of static charges include but are not limited to mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

General hygiene considerations Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Flammable mixtures may exist within the vapor space of containers at room temperature. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Packaging materials Suitable container/equipment material: Carbon Steel. stainless steel. Phenolic lined steel drums.
Unsuitable container/equipment material. Aluminium. copper. Galvanized iron. Galvanized steel.

7.3. Specific end use(s)

Specific use(s)
See section 1 for more information.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	United Kingdom
1-METHOXY-2-PROPANOL 107-98-2	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³ Sk*

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
1-METHOXY-2-PROPANOL 107-98-2		183 mg/kg bw/day [4] [6]	369 mg/m ³ [4] [6] 553.5 mg/m ³ [4] [7]

			553.5 mg/m ³ [5] [7]
[4]	Systemic health effects.		
[5]	Local health effects.		
[6]	Long term.		
[7]	Short term.		

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
1-METHOXY-2-PROPANOL 107-98-2	33 mg/kg bw/day [4] [6]	78 mg/kg bw/day [4] [6]	43.9 mg/m ³ [4] [6]

[4]	Systemic health effects.
[6]	Long term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
1-METHOXY-2-PROPANOL 107-98-2	10 mg/L	100 mg/L	1 mg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
1-METHOXY-2-PROPANOL 107-98-2	52.3 mg/kg sediment dw	5.2 mg/kg sediment dw	100 mg/L	4.59 mg/kg soil dw	

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Use eye protection according to EN 166.

Hand protection Wear suitable gloves. Gloves must conform to standard EN 374.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
	Wear protective butyl rubber gloves	> 0.35 mm	> 60 minutes
	Ethyl vinyl alcohol laminate ("EVAL")	> 0.35 mm	> 60 minutes
	Wear protective Neoprene™ gloves	> 0.35 mm	> 60 minutes
	Wear protective nitrile rubber gloves	> 0.35 mm	> 60 minutes

Skin and body protection Wear appropriate clothing to prevent reasonably probable skin contact. Antistatic footwear.

Respiratory protection Use appropriate respiratory protection.
Organic gases and vapours filter conforming to EN 14387. Type A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	Colourless
Odour	Ether.
Odour threshold	No information available

Property	Values
Melting point / freezing point	-96 °C
Initial boiling point and boiling range	120.15 °C
Flammability	
Flammability Limit in Air	
Upper flammability or explosive limits	13.7 % vol

Remarks • Method
Read-across.
@ 1013 hPa. OECD 103.
No information available.
Read-across.

Lower flammability or explosive limits	1.48 % vol	
Flash point	31 °C	Setaflash closed cup.
Autoignition temperature	287 °C	Read-across.
Decomposition temperature		No information available.
pH		Not applicable.
pH (as aqueous solution)		No information available.
Kinematic viscosity	1.86 mm ² /s	@ 25 °C. Read-across.
Dynamic viscosity	1.7 mPa s	@ 25 °C. Read-across.
Water solubility	Miscible in water	
Solubility(ies)		No information available.
Partition coefficient	log Pow: 0.37	No information available.
Vapour pressure	1.56 kPa	@ 25 °C. Read-across.
Relative density	0.919	25 °C / 25 °C. Read-across.
Bulk density		No information available
Liquid Density	No information available	No information available
Relative vapour density	3.12	@ 25 °C. Read-across.
Particle characteristics		Not applicable. liquid.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	Not considered to be explosive.	
Oxidising properties	Does not meet the criteria for classification as oxidising	

9.2. Other information

Molecular weight	90.1 g/mol
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No information available.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing.
Hazardous polymerisation	Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Conditions to avoid	Product may decompose at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems. Avoid static discharge.
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10.5. Incompatible materials

Incompatible materials	Strong acids. Strong bases. Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Carbon oxides.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation	Inhalation of vapours in high concentration may cause irritation of respiratory system. May cause drowsiness or dizziness.
Eye contact	May cause slight eye irritation.
Skin contact	Non-irritating during normal use.
Ingestion	May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics**Symptoms**

No information available.

Acute toxicity**Numerical measures of toxicity****Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
1-METHOXY-2-PROPANOL	= 3739 - 4277 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 30.02 mg/L (Rat) 4 h
2-METHOXYPROPANOL	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Skin corrosion/irritation**

Non-irritating during normal use.

1-METHOXY-2-PROPANOL (107-98-2)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					non-irritant

2-METHOXYPROPANOL (1589-47-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes skin irritation Prolonged contact may cause redness and irritation

Serious eye damage/eye irritation

May cause slight eye irritation.

1-METHOXY-2-PROPANOL (107-98-2)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause slight eye irritation

2-METHOXYPROPANOL (1589-47-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes serious eye damage

Respiratory or skin sensitisation

Non-sensitizing.

1-METHOXY-2-PROPANOL (107-98-2)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Not a skin sensitiser

2-METHOXYPROPANOL (1589-47-5)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Not a skin sensitiser

Germ cell mutagenicity

Did not show mutagenic effects in animal experiments.

Component Information**1-METHOXY-2-PROPANOL (107-98-2)**

Method	Species	Results
	in vitro	Negative
		Negative Did not show mutagenic effects in animal experiments

2-METHOXYPROPANOL (1589-47-5)

Method	Species	Results
	in vitro	Negative
		Negative Did not show mutagenic effects in animal experiments

Carcinogenicity

Did not cause cancer in laboratory animals.

Component Information**1-METHOXY-2-PROPANOL (107-98-2)**

Method	Species	Results
		Did not cause cancer in laboratory animals.

2-METHOXYPROPANOL (1589-47-5)

Method	Species	Results
		Did not cause cancer in laboratory animals.

Reproductive toxicity No information available.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	United Kingdom
2-METHOXYPROPANOL	Repr. 1B

2-METHOXYPROPANOL (1589-47-5)

Method	Species	Results
		May damage the unborn child

STOT - single exposure May cause drowsiness or dizziness.

1-METHOXY-2-PROPANOL (107-98-2)

Method	Species	Exposure route	Effective dose	Exposure time	Results
		Inhalation			May cause drowsiness or dizziness

2-METHOXYPROPANOL (1589-47-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
		Inhalation			May cause respiratory irritation

STOT - repeated exposure No information available.

Component Information

1-METHOXY-2-PROPANOL (107-98-2)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed. In animals, effects have been reported on the following organs: Liver Kidney effects and/or tumors have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans.

2-METHOXYPROPANOL (1589-47-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

Aspiration hazard Based on available data the classification criteria are not met.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

The environmental impact of this product has not been fully investigated.

1-METHOXY-2-PROPANOL (107-98-2)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
DIN 38412	Leuciscus idus	LC50	6812 mg/L	96 hours	
OECD Test No. 203: Fish, Acute Toxicity Test or Equivalent.	Oncorhynchus mykiss (rainbow trout)	LC50	>= 1000 mg/L	96 hours	
OECD Test No. 203: Fish, Acute Toxicity Test or Equivalent.	Pimephales promelas	LC50	20800 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test or Equivalent.	Daphnia magna	LC50	21100 - 25900 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test or Equivalent.	Pseudokirchneriella subcapitata	ErC50	> 1000 mg/L	7 days	

12.2. Persistence and degradability**Persistence and degradability**

Readily biodegradable.

1-METHOXY-2-PROPANOL (107-98-2)

Method	Exposure time	Value	Results
OECD Test No. 301E: Ready Biodegradability: Modified OECD Screening Test (TG 301 E) or Equivalent.	28 days	Biodegradation 86%	Readily biodegradable

12.3. Bioaccumulative potential**Bioaccumulation**

Not likely to bioaccumulate.

Bioconcentration factor (BCF)

< 2

Component Information

Chemical name	Partition coefficient
1-METHOXY-2-PROPANOL	0.37

12.4. Mobility in soil**Mobility in soil**

Miscible in water.

12.5. Results of PBT and vPvB assessment**PBT and vPvB assessment**

The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
1-METHOXY-2-PROPANOL	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Waste from residues/unused products**

Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information**IATA****14.1 UN number or ID number**

UN3092

14.2 UN proper shipping name

1-METHOXY-2-PROPANOL

14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
ERG Code	3L

IMDG

14.1 UN number or ID number	UN3092
UN proper shipping name	1-METHOXY-2-PROPANOL
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
EmS-No	F-E, S-D
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	UN3092
14.2 UN proper shipping name	1-METHOXY-2-PROPANOL
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
Classification code	F1

ADR

14.1 UN number or ID number	UN3092
14.2 UN proper shipping name	1-METHOXY-2-PROPANOL
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
Classification code	F1
Tunnel restriction code	(D/E)

SECTION 15: Regulatory information

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

National regulations

Authorisations and/or restrictions on use:

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
2-METHOXYPROPANOL - 1589-47-5	Use restricted. See item 30. Restricted Reproductive Toxin 1B	-

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Dangerous substance category per COMAH Regulations 2015 (as amended)

P5c - FLAMMABLE LIQUIDS

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIC - Australian Inventory of Industrial Chemicals

NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H226 - Flammable liquid and vapour

H315 - Causes skin irritation

H318 - Causes serious eye damage

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H360D - May damage the unborn child

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Revision Note **SDS sections updated 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16**

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Prepared By	Lisa Bland
Supersedes date	05-Dec-2022
Revision date	09-May-2024

**This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Exposure scenario

Manufacture of substance, Industrial

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Manufacture of substance, Industrial
Process scope	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.
Main sector	SU3 Industrial uses

Environment

Environmental release category	ERC1 Manufacture of the substance
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Worker

Process category	PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC15 Use as laboratory reagent.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Manufacture of substance, Industrial

Physical state Liquid, vapour pressure 0.5 - 10 kPa at STP

Concentration details Covers concentrations up to 100 %.
Readily biodegradable. Non-hydrophobic.

Amounts used

Maximum daily site tonnage: 400000 kg

Frequency and duration of use

Continuous release.
Emission days: 300 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air Release fraction to air from process (initial release prior to RMM): 0.001
Emission factor - water Release fraction to wastewater from process (initial release prior to RMM): 0.003
Emission factor - soil Release fraction to soil from process (initial release prior to RMM): 0.0001

Environmental factors not influenced by risk management measures

Dilution Local freshwater dilution factor: 10
Local marine water dilution factor: 100
Other factors Negligible air emissions as process operates in a contained system.

Risk management measures

Good practice A leak prevention plan is needed to prevent low level continual releases. Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.
Technical measures Bund storage facilities to prevent soil and water pollution in the event of spillage.
STP details Estimated substance removal from wastewater via domestic sewage treatment: 87.3%
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 87.3%

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Water Prevent discharge of undissolved substance to or recover from onsite waste water.

Conditions and measures related to external treatment of waste for disposal

Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state Liquid, vapour pressure 0.5 - 10 kPa at STP
Concentration details Covers concentrations up to 100 %.
Readily biodegradable. Non-hydrophobic.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Indoor.

Manufacture of substance, Industrial

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and measures at process level (source) to prevent release

Technical protective measures Clear transfer lines prior to de-coupling.

Risk management measures

Wear suitable coveralls to prevent exposure to the skin.
Use suitable eye protection.
If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes.

3. Exposure estimation (Environment 1)

Assessment method Used EUSES model.

Environmental exposure Fresh water: Exposure 7.59 mg/l, PNEC 10 mg/l, RCR 0.759
Marine water: Exposure 0.760 mg/l, PNEC 1 mg/l, RCR 0.760
Soil: Exposure 2.55 mg/kg, PNEC 4.59 mg/kg, RCR 0.555
freshwater sediment: Exposure 39.7 mg/kg, PNEC 52.3 mg/kg, RCR 0.759
marine sediment: Exposure 3.97 mg/kg, PNEC 5.2 mg/kg, RCR 0.760

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC

3. Exposure estimation (Health 1)

factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

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

Manufacture of substance, Industrial

Exposure

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

Worker - inhalation, long-term - systemic: Exposure 0.04 mg/m³, DNEL 369 mg/m³, RCR <0.001

Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

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

Worker - inhalation, long-term - systemic: Exposure 37.54 mg/m³, DNEL 369 mg/m³, RCR 0.10

Worker - dermal, long-term - systemic: Exposure 1.37 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.01

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

Worker - inhalation, long-term - systemic: Exposure 93.85 mg/m³, DNEL 369 mg/m³, RCR 0.25

Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

PROC4 Chemical production where opportunity for exposure arises

Worker - inhalation, long-term - systemic: Exposure 75.08 mg/m³, DNEL 369 mg/m³, RCR 0.20

Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

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

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07

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

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

PROC15 Use as laboratory reagent.

Worker - inhalation, long-term - systemic: Exposure 37.54 mg/m³, DNEL 369 mg/m³, RCR 0.10

Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use as an Intermediate, Industrial

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Use as an Intermediate, Industrial
Process scope	Use of substance as an intermediate (not related to Strictly Controlled Conditions). Includes recycling/recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).
Main sector	SU3 Industrial uses

Environment

Environmental release category	ERC6a Use of intermediate
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Worker

Process category	PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC15 Use as laboratory reagent.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Use as an Intermediate, Industrial

Physical state Liquid, vapour pressure 0.5 - 10 kPa at STP

Concentration details Covers concentrations up to 100 %.
Readily biodegradable. Non-hydrophobic.

Amounts used

Maximum daily site tonnage: 38133 kg

Frequency and duration of use

Continuous release.
Emission days: 300 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air Release fraction to air from process (initial release prior to RMM): 0.0001
Emission factor - water Release fraction to wastewater from process (initial release prior to RMM): 0.0005
Emission factor - soil Release fraction to soil from process (initial release prior to RMM): 0.0001

Environmental factors not influenced by risk management measures

Dilution Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Risk management measures

Good practice A leak prevention plan is needed to prevent low level continual releases. Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.

Technical measures Bund storage facilities to prevent soil and water pollution in the event of spillage.

STP details Estimated substance removal from wastewater via domestic sewage treatment: 87.3%
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 87.3%

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Water Prevent discharge of undissolved substance to or recover from onsite waste water.

Conditions and measures related to external treatment of waste for disposal

Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state Liquid, vapour pressure 0.5 - 10 kPa at STP

Concentration details Covers concentrations up to 100 %.
Readily biodegradable. Non-hydrophobic.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Indoor.

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Use as an Intermediate, Industrial

Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and measures at process level (source) to prevent release

Technical protective measures Clear transfer lines prior to de-coupling.

Risk management measures

Wear suitable coveralls to prevent exposure to the skin.

Use suitable eye protection.

If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes.

3. Exposure estimation (Environment 1)

Assessment method Used EUSES model.

Environmental exposure Fresh water: Exposure 0.122 mg/l, PNEC 10 mg/l, RCR 0.014
freshwater sediment: Exposure 0.749 mg/kg, PNEC 52.3 mg/kg, RCR 0.014
Marine water: Exposure 0.0129 mg/l, PNEC 1 mg/l, RCR 0.015
marine sediment: Exposure 0.0786 mg/kg, PNEC 5.2 mg/kg, RCR 0.015
Soil: Exposure 0.0679 mg/kg, PNEC 4.59 mg/kg, RCR 0.015

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC

3. Exposure estimation (Health 1)

factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

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

Use as an Intermediate, Industrial

Exposure

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

Worker - inhalation, long-term - systemic: Exposure 0.04 mg/m³, DNEL 369 mg/m³, RCR <0.001

Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

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

Worker - inhalation, long-term - systemic: Exposure 37.54 mg/m³, DNEL 369 mg/m³, RCR 0.10

Worker - dermal, long-term - systemic: Exposure 1.37 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.01

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

Worker - inhalation, long-term - systemic: Exposure 93.85 mg/m³, DNEL 369 mg/m³, RCR 0.25

Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

PROC4 Chemical production where opportunity for exposure arises

Worker - inhalation, long-term - systemic: Exposure 75.08 mg/m³, DNEL 369 mg/m³, RCR 0.20

Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

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

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07

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

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

PROC15 Use as laboratory reagent.

Worker - inhalation, long-term - systemic: Exposure 37.54 mg/m³, DNEL 369 mg/m³, RCR 0.10

Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Formulation & (re)packing of substances and mixtures, Industrial

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Formulation & (re)packing of substances and mixtures, Industrial
Process scope	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. Use of the substance within laboratory settings, including material transfers and equipment cleaning.
Main sector	SU3 Industrial uses
<u>Environment</u>	
Environmental release category	ERC2 Formulation into mixture
<u>Worker</u>	

Formulation & (re)packing of substances and mixtures, Industrial

Process category	PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC5 Mixing or blending in batch processes PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC14 Tableting, compression, extrusion, pelletisation, granulation PROC15 Use as laboratory reagent.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Physical state	Liquid, vapour pressure 0.5 - 10 kPa at STP
Concentration details	Covers concentrations up to 100 %. Readily biodegradable. Non-hydrophobic.

Amounts used

Maximum daily site tonnage: 84066 kg

Frequency and duration of use

Continuous release.
Emission days: 300 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from process (initial release prior to RMM): 0.005
Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 0.003
Emission factor - soil	Release fraction to soil from process (initial release prior to RMM): 0.0001

Environmental factors not influenced by risk management measures

Dilution	Local freshwater dilution factor: 10 Local marine water dilution factor: 100
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Risk management measures

Good practice	A leak prevention plan is needed to prevent low level continual releases. Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.
Technical measures	Bund storage facilities to prevent soil and water pollution in the event of spillage.
STP details	Estimated substance removal from wastewater via domestic sewage treatment: 87.3% Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 87.3%

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Water	Prevent discharge of undissolved substance to or recover from onsite waste water.
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Conditions and measures related to external treatment of waste for disposal

Formulation & (re)packing of substances and mixtures, Industrial

Waste treatment	External treatment and disposal of waste should comply with applicable local and/or national regulations.
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2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state Liquid, vapour pressure 0.5 - 10 kPa at STP

Concentration details Covers concentrations up to 100 %.
Readily biodegradable. Non-hydrophobic.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Indoor.

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and measures at process level (source) to prevent release

Technical protective measures Provide extract ventilation to points where emissions occur. Clear transfer lines prior to de-coupling.

Risk management measures

Wear suitable coveralls to prevent exposure to the skin.
Use suitable eye protection.
If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes.

3. Exposure estimation (Environment 1)

Assessment method Used EUSES model.

Environmental exposure Fresh water: Exposure 1.33 mg/l, PNEC 10 mg/l, RCR 0.161
freshwater sediment: Exposure 8.44 mg/kg, PNEC 52.3 mg/kg, RCR 0.161
Marine water: Exposure 0.134 mg/l, PNEC 1 mg/l, RCR 0.162
marine sediment: Exposure 0.847 mg/kg, PNEC 5.2 mg/kg, RCR 0.162
Soil: Exposure 0.569 mg/kg, PNEC 4.59 mg/kg, RCR 0.124

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC

3. Exposure estimation (Health 1)

factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

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

Formulation & (re)packing of substances and mixtures, Industrial

Exposure

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
Worker - inhalation, long-term - systemic: Exposure 0.04 mg/m³, DNEL 369 mg/m³, RCR <0.001
Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
Worker - inhalation, long-term - systemic: Exposure 37.54 mg/m³, DNEL 369 mg/m³, RCR 0.10
Worker - dermal, long-term - systemic: Exposure 1.37 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.01

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
Worker - inhalation, long-term - systemic: Exposure 93.54 mg/m³, DNEL 369 mg/m³, RCR 0.10
Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.01

PROC4 Chemical production where opportunity for exposure arises
Worker - inhalation, long-term - systemic: Exposure 75.08 mg/m³, DNEL 369 mg/m³, RCR 0.20
Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

PROC5 Mixing or blending in batch processes
Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51
Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51
Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51
Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51
Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

PROC14 Tableting, compression, extrusion, pelletisation, granulation
Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51
Worker - dermal, long-term - systemic: Exposure 3.43 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.02

PROC15 Use as laboratory reagent.
Worker - inhalation, long-term - systemic: Exposure 37.54 mg/m³, DNEL 369 mg/m³, RCR 0.10
Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

Formulation & (re)packing of substances and mixtures, Industrial

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario Uses in Coatings, Industrial

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Uses in Coatings, Industrial
Process scope	Covers the use in coatings (paints, inks, adhesives, etc.), including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities. Use of the substance within laboratory settings, including material transfers and equipment cleaning.
Main sector	SU3 Industrial uses

Environment

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

Uses in Coatings, Industrial

Process category	PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC5 Mixing or blending in batch processes PROC7 Industrial spraying PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC10 Roller application or brushing PROC13 Treatment of articles by dipping and pouring. PROC14 Tableting, compression, extrusion, pelletisation, granulation PROC15 Use as laboratory reagent.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Physical state	Liquid, vapour pressure 0.5 - 10 kPa at STP
Concentration details	Covers concentrations up to 100 %. Readily biodegradable. Non-hydrophobic.

Amounts used

Maximum daily site tonnage: 105087 kg

Frequency and duration of use

Continuous release.
Emission days: 300 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from process (after typical onsite RMMs): 0.27
Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 0.02
Emission factor - soil	Release fraction to soil from process (initial release prior to RMM): 0.0001

Environmental factors not influenced by risk management measures

Dilution	Local freshwater dilution factor: 10 Local marine water dilution factor: 100
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Risk management measures

Good practice	A leak prevention plan is needed to prevent low level continual releases. Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.
Technical measures	Bund storage facilities to prevent soil and water pollution in the event of spillage.
STP details	Estimated substance removal from wastewater via domestic sewage treatment: 87.3% Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 87.3%

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Uses in Coatings, Industrial

Air	Treat air emission to provide a typical removal efficiency of 70%.
Water	Prevent discharge of undissolved substance to or recover from onsite waste water.

Conditions and measures related to external treatment of waste for disposal

Waste treatment	External treatment and disposal of waste should comply with applicable local and/or national regulations.
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2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state	Liquid, vapour pressure 0.5 - 10 kPa at STP
Concentration details	Covers concentrations up to 100 %. Readily biodegradable. Non-hydrophobic.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and measures at process level (source) to prevent release

Technical protective measures PROC7 Industrial spraying Carry out in a vented booth or extracted enclosure.

Risk management measures

Wear suitable coveralls to prevent exposure to the skin.
Use suitable eye protection.
If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes.

3. Exposure estimation (Environment 1)

Assessment method	Used EUSES model.
Environmental exposure	Fresh water: Exposure 1.11 mg/l, PNEC 10 mg/l, RCR 0.135 freshwater sediment: Exposure 7.05 mg/kg, PNEC 52.3 mg/kg, RCR 0.135 Marine water: Exposure 0.112 mg/l, PNEC 1 mg/l, RCR 0.136 marine sediment: Exposure 0.709 mg/kg, PNEC 5.2 mg/kg, RCR 0.136 Soil: Exposure 0.469 mg/kg, PNEC 4.59 mg/kg, RCR 0.102 Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC

3. Exposure estimation (Health 1)

factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

Uses in Coatings, Industrial

Assessment method

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

Uses in Coatings, Industrial

Exposure

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

Worker - inhalation, long-term - systemic: Exposure 0.04 mg/m³, DNEL 369 mg/m³, RCR <0.001

Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

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

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 1.37 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.01

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

Worker - inhalation, long-term - systemic: Exposure 93.85 mg/m³, DNEL 369 mg/m³, RCR 0.25

Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 193 mg/kg/day, RCR 0.002

PROC4 Chemical production where opportunity for exposure arises

Worker - inhalation, long-term - systemic: Exposure 75.08 mg/m³, DNEL 369 mg/m³, RCR 0.20

Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

PROC7 Industrial spraying

Worker - inhalation, long-term - systemic: Exposure 281.56 mg/m³, DNEL 369 mg/m³, RCR 0.76

Worker - dermal, long-term - systemic: Exposure 8.57 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.05

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

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07

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

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

PROC10 Roller application or brushing

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 5.49 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.03

PROC13 Treatment of articles by dipping and pouring.

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07

PROC14 Tableting, compression, extrusion, pelletisation, granulation

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 3.43 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.02

PROC15 Use as laboratory reagent.

Uses in Coatings, Industrial

Worker - inhalation, long-term - systemic: Exposure 37.54 mg/m³, DNEL 369 mg/m³, RCR 0.10

Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario Uses in Coatings, Professional

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Uses in Coatings, Professional
Process scope	Covers the use in coatings (paints, inks, adhesives, etc.), including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, brush, spreader by hand or similar methods and film formation) and equipment cleaning, maintenance and associated laboratory activities. Use of small quantities within laboratory settings, including material transfers and equipment cleaning.
Main sector	SU22 Professional uses
<u>Environment</u>	
Environmental release category	ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

Worker

Uses in Coatings, Professional

Process category	PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
	PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
	PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
	PROC4 Chemical production where opportunity for exposure arises
	PROC5 Mixing or blending in batch processes
	PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
	PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
	PROC10 Roller application or brushing
	PROC11 Non industrial spraying
	PROC13 Treatment of articles by dipping and pouring.
	PROC15 Use as laboratory reagent.
	PROC19 Manual activities involving hand contact

2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Physical state	Liquid, vapour pressure 0.5 - 10 kPa at STP
Concentration details	Covers concentrations up to 100 %.
	Readily biodegradable. Non-hydrophobic.

Amounts used

Maximum daily site tonnage: 10508 kg

Frequency and duration of use

Continuous release.
Emission days: 300 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from process (initial release prior to RMM): 0.9
Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 0.02
Emission factor - soil	Release fraction to soil from process (initial release prior to RMM): 0.001

Environmental factors not influenced by risk management measures

Dilution	Local freshwater dilution factor: 10
	Local marine water dilution factor: 100

Risk management measures

Good practice	A leak prevention plan is needed to prevent low level continual releases. Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.
Technical measures	Bund storage facilities to prevent soil and water pollution in the event of spillage.
STP details	Estimated substance removal from wastewater via domestic sewage treatment: 87.3% Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 87.3%

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Water	Prevent discharge of undissolved substance to or recover from onsite waste water.
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Uses in Coatings, Professional

Conditions and measures related to external treatment of waste for disposal

Waste treatment	External treatment and disposal of waste should comply with applicable local and/or national regulations.
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2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state	Liquid, vapour pressure 0.5 - 10 kPa at STP
Concentration details	Covers concentrations up to 100 %. Readily biodegradable. Non-hydrophobic.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting	Indoor/outdoor use.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). , or: Ensure operation is undertaken outdoors. Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and measures at process level (source) to prevent release

Technical protective measures	PROC11 Non industrial spraying Carry out in a vented booth or extracted enclosure. , or: Wear a respirator conforming to EN140 with Type A filter or better.
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Risk management measures

Wear suitable coveralls to prevent exposure to the skin.
Use suitable eye protection.
If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes.
PROC19 Manual activities involving hand contact
Hand application - fingerpaints, pastels, adhesives
Wear chemically-resistant gloves (tested to EN374) in combination with 'basic' employee training.

3. Exposure estimation (Environment 1)

Assessment method	Used EUSES model.
Environmental exposure	Fresh water: Exposure 1.11 mg/l, PNEC 10 mg/l, RCR 0.135 freshwater sediment: Exposure 7.05 mg/kg, PNEC 52.3 mg/kg, RCR 0.135 Marine water: Exposure 0.112 mg/m³, PNEC 1 mg/m³, RCR 0.136 marine sediment: Exposure 0.709 mg/kg, PNEC 5.2 mg/kg, RCR 0.136 Soil: Exposure 0.469 mg/kg, PNEC 4.59 mg/kg, RCR 0.102 Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

Uses in Coatings, Professional

3. Exposure estimation (Health 1)

Assessment method	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated
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Uses in Coatings, Professional

Exposure

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
Worker - inhalation, long-term - systemic: Exposure 0.04 mg/m³, DNEL 369 mg/m³, RCR <0.001
Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
Worker - inhalation, long-term - systemic: Exposure 75.08 mg/m³, DNEL 369 mg/m³, RCR 0.20
Worker - dermal, long-term - systemic: Exposure 1.37 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.01

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
Worker - inhalation, long-term - systemic: Exposure 93.85 mg/m³, DNEL 93.85 mg/m³, RCR 0.25
Worker - dermal, long-term - systemic: Exposure 0.34 mg/m³, DNEL 183 mg/m³, RCR 0.002

PROC4 Chemical production where opportunity for exposure arises
Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51
Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

PROC5 Mixing or blending in batch processes
Worker - inhalation, long-term - systemic: Exposure 262.79 mg/m³, DNEL 369 mg/m³, RCR 0.71
Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
Worker - inhalation, long-term - systemic: Exposure 262.79 mg/m³, DNEL 369 mg/m³, RCR 0.71
Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 189 mg/kg/day, RCR 0.07

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51
Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

PROC10 Roller application or brushing
Worker - dermal, long-term - systemic: Exposure 5.49 mg/kg/day, DNEL 189 mg/kg/day, RCR 0.03
Worker - inhalation, long-term - systemic: Exposure 262.79 mg/m³, DNEL 369 mg/m³, RCR 0.71

PROC11 Non industrial spraying
Worker - inhalation, long-term - systemic: Exposure 131.40 mg/m³, DNEL 369 mg/m³, RCR 0.36
Worker - dermal, long-term - systemic: Exposure 21.43 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.12

PROC13 Treatment of articles by dipping and pouring.
Worker - inhalation, long-term - systemic: Exposure 262.79 mg/m³, DNEL 369 mg/m³, RCR 0.71
Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07

PROC15 Use as laboratory reagent.
Worker - inhalation, long-term - systemic: Exposure 37.54 mg/m³, DNEL 369 mg/m³, RCR

Uses in Coatings, Professional

0.10

Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

PROC19 Manual activities involving hand contact

Worker - dermal, long-term - systemic: Exposure 14.14 mg/kg/day, DNEL 369 mg/kg/day, RCR 0.08

Worker - inhalation, long-term - systemic: Exposure 262.79 mg/m³, DNEL 369 mg/m³, RCR 0.71

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario Use in Cleaning Agents, Industrial

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Use in Cleaning Agents, Industrial
Process scope	Covers the use as a component of cleaning products, including transfer from storage, 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), related equipment cleaning and maintenance. Use of the substance within laboratory settings, including material transfers and equipment cleaning.
Main sector	SU3 Industrial uses
<u>Environment</u>	
Environmental release category	ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
<u>Worker</u>	
Process category	PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC7 Industrial spraying PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC10 Roller application or brushing PROC13 Treatment of articles by dipping and pouring.

Use in Cleaning Agents, Industrial

2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Physical state Liquid, vapour pressure 0.5 - 10 kPa at STP

Concentration details Covers concentrations up to 100 %.
Readily biodegradable. Non-hydrophobic.

Amounts used

Maximum daily site tonnage: 5000 kg

Frequency and duration of use

Continuous release.
Emission days: 20 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air Release fraction to air from process (initial release prior to RMM): 0.3
Emission factor - water Release fraction to wastewater from process (initial release prior to RMM): 0.0001
Emission factor - soil Release fraction to soil from wide dispersive use (regional only): 0

Environmental factors not influenced by risk management measures

Dilution Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Risk management measures

Good practice Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.
STP details Estimated substance removal from wastewater via domestic sewage treatment: 87.3%
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 87.3%

Conditions and measures related to external treatment of waste for disposal

Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state Liquid, vapour pressure 0.5 - 10 kPa at STP

Concentration details Covers concentrations up to 100 %.
Readily biodegradable. Non-hydrophobic.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Indoor.
Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and measures at process level (source) to prevent release

Use in Cleaning Agents, Industrial

Technical protective measures Provide extract ventilation to points where emissions occur. PROC7 Industrial spraying
Cleaning with high-pressure washers Limit the substance content in the product to 25%.
Provide a good standard of controlled ventilation (10 to 15 air changes per hour).

Risk management measures

Wear suitable coveralls to prevent exposure to the skin.
Use suitable eye protection.
If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes.

3. Exposure estimation (Environment 1)

Assessment method	Used EUSES model.
Environmental exposure	Fresh water: Exposure 0.0231 mg/l, PNEC 10 mg/l, RCR 0.003 freshwater sediment: Exposure 0.136 mg/kg, PNEC 52.3 mg/kg, RCR 0.003 Marine water: Exposure 0.0031 mg/l, PNEC 1 mg/l, RCR 0.003 marine sediment: Exposure 0.00302 mg/kg, PNEC 5.2 mg/kg, RCR 0.003 Soil: Exposure 0.0325 mg/kg, PNEC 4.59 mg/kg, RCR 0.007 Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC

3. Exposure estimation (Health 1)

factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

Assessment method	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated
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Use in Cleaning Agents, Industrial

Exposure

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

Worker - inhalation, long-term - systemic: Exposure 37.54 mg/m³, DNEL 369 mg/m³, RCR 0.10

Worker - dermal, long-term - systemic: Exposure 1.37 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.01

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

Worker - inhalation, long-term - systemic: Exposure 93.85 mg/m³, DNEL 369 mg/m³, RCR 0.25

Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002

PROC4 Chemical production where opportunity for exposure arises

Worker - inhalation, long-term - systemic: Exposure 37.86 mg/m³, DNEL 369 mg/m³, RCR 0.10

Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

PROC7 Industrial spraying

Worker - inhalation, long-term - systemic: Exposure 168.94 mg/m³, DNEL 369 mg/m³, RCR 0.46

Worker - dermal, long-term - systemic: Exposure 8.57 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.05

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

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07

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

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

PROC10 Roller application or brushing

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 5.49 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.03

PROC13 Treatment of articles by dipping and pouring.

Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51

Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Cleaning Agents, Professional

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Use in Cleaning Agents, Professional
Process scope	Covers the use as a component of cleaning products, including transfer from storage, 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), related equipment cleaning and maintenance. Use of small quantities within laboratory settings, including material transfers and equipment cleaning.
Main sector	SU22 Professional uses
<u>Environment</u>	
Environmental release category	ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

Worker

Use in Cleaning Agents, Professional

Process category	PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC10 Roller application or brushing PROC11 Non industrial spraying PROC13 Treatment of articles by dipping and pouring.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Physical state	Liquid, vapour pressure 0.5 - 10 kPa at STP
Concentration details	Covers concentrations up to 100 %. Readily biodegradable. Non-hydrophobic.

Amounts used

Maximum daily site tonnage: 0.71 kg

Frequency and duration of use

Continuous release.
Emission days: 365 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from process (initial release prior to RMM): 0.02
Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 0.000001
Emission factor - soil	Release fraction to soil from wide dispersive use (regional only): 0

Environmental factors not influenced by risk management measures

Dilution	Local freshwater dilution factor: 10 Local marine water dilution factor: 100
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Risk management measures

Good practice	Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.
Technical measures	Bund storage facilities to prevent soil and water pollution in the event of spillage.
STP details	Estimated substance removal from wastewater via domestic sewage treatment: 87.3% Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 87.3%

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Air	Treat air emission to provide the required removal efficiency of 70%.
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Conditions and measures related to external treatment of waste for disposal

Waste treatment	External treatment and disposal of waste should comply with applicable local and/or national regulations.
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2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Use in Cleaning Agents, Professional

Physical state Liquid, vapour pressure 0.5 - 10 kPa at STP

Concentration details Covers concentrations up to 100 %.

Readily biodegradable. Non-hydrophobic.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Indoor/outdoor use.

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Ventilation rate Provide a good standard of controlled ventilation (10 to 15 air changes per hour). , or: Ensure operation is undertaken outdoors.

Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and measures at process level (source) to prevent release

Technical protective measures Provide extract ventilation to points where emissions occur. PROC11 Non industrial spraying
Cleaning with high-pressure washers Limit the substance content in the product to 25%.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities Filling/preparation of equipment from drums or containers. Avoid carrying out activities involving exposure for more than 4 hours.

Risk management measures

Wear suitable coveralls to prevent exposure to the skin.

Use suitable eye protection.

If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes.

PROC11 Non industrial spraying

Cleaning with high-pressure washers

Wear chemically-resistant gloves (tested to EN374) in combination with 'basic' employee training.

3. Exposure estimation (Environment 1)

Assessment method Used EUSES model.

Environmental exposure Fresh water: Exposure 0.029 mg/l, PNEC 10 mg/l, RCR 0.003
freshwater sediment: Exposure 0.12 mg/kg, PNEC 52.3 mg/kg, RCR 0.003
Marine water: Exposure 0.003 mg/l, PNEC 1 mg/l, RCR 0.003
marine sediment: Exposure 0.0157 mg/kg, PNEC 5.2 mg/kg, RCR 0.003
Soil: Exposure 0.028 mg/kg, PNEC 4.59 mg/kg, RCR 0.006

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC

3. Exposure estimation (Health 1)

factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

Use in Cleaning Agents, Professional

Assessment method	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated
Exposure	PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions Worker - inhalation, long-term - systemic: Exposure 75.08 mg/m³, DNEL 369 mg/m³, RCR 0.20 Worker - dermal, long-term - systemic: Exposure 1.37 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.01 PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition Worker - inhalation, long-term - systemic: Exposure 93.85 mg/m³, DNEL 369 mg/m³, RCR 0.25 Worker - dermal, long-term - systemic: Exposure 0.34 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.002 PROC4 Chemical production where opportunity for exposure arises Worker - inhalation, long-term - systemic: Exposure 187.87 mg/m³, DNEL 369 mg/m³, RCR 0.51 Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04 PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities Worker - inhalation, long-term - systemic: Exposure 187.87 mg/m³, DNEL 369 mg/m³, RCR 0.51 Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04 PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities Worker - inhalation, long-term - systemic: Exposure 187.71 mg/m³, DNEL 369 mg/m³, RCR 0.51 Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04 PROC10 Roller application or brushing Worker - inhalation, long-term - systemic: Exposure 26.79 mg/m³, DNEL 369 mg/m³, RCR 0.71 Worker - dermal, long-term - systemic: Exposure 27.43 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.15 PROC11 Non industrial spraying Worker - inhalation, long-term - systemic: Exposure 112.63 mg/m³, DNEL 369 mg/m³, RCR 0.31 Worker - dermal, long-term - systemic: Exposure 21.43 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.12 PROC13 Treatment of articles by dipping and pouring. Worker - inhalation, long-term - systemic: Exposure 112.63 mg/m³, DNEL 369 mg/m³, RCR 0.31 Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07 Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Agrochemicals, Professional

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Use in Agrochemicals, Professional
Process scope	Use as an agrochemical excipient for application by manual or machine spraying, smokes and fogging, including equipment clean-downs and disposal.
Main sector	SU22 Professional uses

Environment

Environmental release category	ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
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Worker

Process category	PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC11 Non industrial spraying PROC13 Treatment of articles by dipping and pouring.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Physical state	Liquid, vapour pressure 0.5 - 10 kPa at STP
Concentration details	Concentration of substance in product: <25%

Use in Agrochemicals, Professional

Readily biodegradable. Non-hydrophobic.

Amounts used

Maximum daily site tonnage: 325 kg

Frequency and duration of use

Intermittent release.

Emission days: 2 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air Release fraction to air from process (initial release prior to RMM): 0.05

Emission factor - water Release fraction to wastewater from process (initial release prior to RMM): 0.1

Emission factor - soil Release fraction to soil from wide dispersive use (regional only): 0.85

Environmental factors not influenced by risk management measures

Dilution Local freshwater dilution factor: 10

Local marine water dilution factor: 100

Risk management measures

STP type No STP.

Conditions and measures related to external treatment of waste for disposal

Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state Liquid, vapour pressure 0.5 - 10 kPa at STP

Concentration details Concentration of substance in product: <25%

Readily biodegradable. Non-hydrophobic.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Outdoor.

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Ventilation rate Provide a good standard of controlled ventilation (10 to 15 air changes per hour). , or: Ensure operation is undertaken outdoors.

Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and measures at process level (source) to prevent release

Technical protective measures PROC11 Non industrial spraying Carry out in a vented booth or extracted enclosure. , or:
Wear a respirator conforming to EN140 with Type A filter or better.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures PROC11 Non industrial spraying Spraying/fogging by manual application Avoid carrying out operation for more than 15 minutes.

Risk management measures

Use in Agrochemicals, Professional

Wear suitable coveralls to prevent exposure to the skin.

Use suitable eye protection.

If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes.

3. Exposure estimation (Environment 1)

Assessment method Used EUSES model.

Environmental exposure Fresh water: Exposure 0.185 mg/l, PNEC 10 mg/l, RCR 0.019
freshwater sediment: Exposure 0.970 mg/kg, PNEC 52.3 mg/kg, RCR 0.019
Marine water: Exposure 0.0192 mg/l, PNEC 1 mg/l, RCR 0.019
marine sediment: Exposure 0.101 mg/kg, PNEC 5.2 mg/kg, RCR 0.019
Soil: Exposure 0.0280 mg/kg, PNEC 4.59 mg/kg, RCR 0.019

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC

3. Exposure estimation (Health 1)

factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

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

Use in Agrochemicals, Professional

Exposure

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

Worker - inhalation, long-term - systemic: Exposure 45.05 mg/m³, DNEL 369 mg/m³, RCR 0.12

Worker - dermal, long-term - systemic: Exposure 1.37 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.01

PROC4 Chemical production where opportunity for exposure arises

Worker - inhalation, long-term - systemic: Exposure 112.63 mg/m³, DNEL 369 mg/m³, RCR 0.31

Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

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

Worker - inhalation, long-term - systemic: Exposure 225.25 mg/m³, DNEL 369 mg/m³, RCR 0.61

Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07

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

Worker - inhalation, long-term - systemic: Exposure 112.63 mg/m³, DNEL 369 mg/m³, RCR 0.31

Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.04

PROC11 Non industrial spraying

Worker - inhalation, long-term - systemic: Exposure 225.25 mg/m³, DNEL 369 mg/m³, RCR 0.61

Worker - dermal, long-term - systemic: Exposure 21.43 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.12

PROC13 Treatment of articles by dipping and pouring.

Worker - inhalation, long-term - systemic: Exposure 225.25 mg/m³, DNEL 369 mg/m³, RCR 0.61

Worker - dermal, long-term - systemic: Exposure 13.71 mg/kg/day, DNEL 183 mg/kg/day, RCR 0.07

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Cleaning Agents, Consumer

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Use in Cleaning Agents, Consumer
Process scope	Covers general exposures to consumers arising from the use of household products sold as washing and cleaning products, aerosols, coatings, de-icers, lubricants and air care products.
Product category	PC35 Washing and cleaning products
Main sector	SU21 Consumer uses

Environment

Environmental release category	ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
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2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Product characteristics

Physical state	Liquid
Concentration details	Concentration of substance in product: <10%

Amounts used

Daily amount per site: 0.03 kg

Frequency and duration of use

Continuous release.
Emission days: 365 days/year

Use in Cleaning Agents, Consumer

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from wide dispersive use (regional only): 0.95
Emission factor - water	Release fraction to wastewater from wide dispersive use: 0.025
Emission factor - soil	Release fraction to soil from wide dispersive use (regional only): 0.025

Risk management measures

STP type	Municipal STP.
STP details	Estimated substance removal from wastewater via domestic sewage treatment: 87.5%

2. Conditions of use affecting exposure (Non-industrial - Health 1)

Product characteristics

Physical state	Liquid, vapour pressure > 10 Pa (STP)
Concentration details	Concentration of substance in product: <10% Readily biodegradable. Non-hydrophobic.

Frequency and duration of use

For each use, avoid using for more than 3 hours.
For each use event, covers use amounts up to 48 g.

Other given operational conditions affecting Non-industrial exposure

Temperature	Covers use at ambient temperatures.
Room size	Covers use in room size of 15 m ³ .
Ventilation rate	Covers use under typical household ventilation.

3. Exposure estimation (Environment 1)

Assessment method	Used EUSES model.
Environmental exposure	Fresh water: Exposure 0.029 mg/l, PNEC 10 mg/l, RCR 0.003 freshwater sediment: Exposure 0.12 mg/kg, PNEC 52.3 mg/kg, RCR 0.003 Marine water: Exposure 0.003 mg/l, PNEC 1 mg/l, RCR 0.003 marine sediment: Exposure 0.0157 mg/kg, PNEC 5.2 mg/kg, RCR 0.003 Soil: Exposure 0.028 mg/kg, PNEC 4.59 mg/kg, RCR 0.006 Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC

3. Exposure estimation (Health 1)

factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

Assessment method	The Consexpo model has been used to estimate consumer exposures, unless otherwise indicated.
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Use in Cleaning Agents, Consumer

Exposure

Consumer - inhalation, long-term - systemic: Exposure 4.44 mg/m³, DNEL 43.9 mg/m³, RCR 0.10

Consumer - dermal, long-term - systemic: Exposure 0.9 mg/kg/day, DNEL 78 mg/kg/day, RCR 0.01

Consumer - oral, long-term - systemic: Exposure 0.004 mg/kg/day, DNEL 33 mg/kg/day, RCR 0.0

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario Use in Cosmetics, Consumer

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Use in Cosmetics, Consumer
Process scope	Consumer uses e.g. as a carrier in cosmetics/personal care products, perfumes and fragrances. Note: for cosmetic and personal care products, risk assessment only required for the environment under REACH as human health is covered by alternative legislation.
Product category	PC39 Cosmetics, personal care.
Main sector	SU21 Consumer uses

Environment

Environmental release category	ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
SPERC	ESVOC SPERC 8.16.v1

2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Product characteristics

Physical state	Liquid
Concentration details	Concentration of substance in product: <10%

Amounts used

Daily amount per site: 0.04 kg

Frequency and duration of use

Continuous release.
Emission days: 365 days/year

Use in Cosmetics, Consumer

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from wide dispersive use (regional only): 0.95
Emission factor - water	Release fraction to wastewater from wide dispersive use: 0.025
Emission factor - soil	Release fraction to soil from wide dispersive use (regional only): 0.025

Risk management measures

STP type	Municipal STP.
STP details	Estimated substance removal from wastewater via domestic sewage treatment: 87.5%

2. Conditions of use affecting exposure (Non-industrial - Health 1)

Control of Non-industrial exposure

In accordance to the Article 14 (5b) of the REACH Regulation (EC) No 1907/2006, exposure estimation and risk characterisation for human health does not need to be performed for end uses in cosmetic products within the scope of Directive 76/768/EEC.

Product characteristics

Physical state	Liquid, vapour pressure > 10 Pa (STP)
Concentration details	Concentration of substance in product: <10% Readily biodegradable. Non-hydrophobic.

Other given operational conditions affecting Non-industrial exposure

Temperature	Covers use at ambient temperatures.
Room size	Covers use in room size of 20 m³.

3. Exposure estimation (Environment 1)

Assessment method	Used EUSES model.
Environmental exposure	Fresh water: Exposure 0.0230 mg/l, PNEC 10 mg/l, RCR 0.002 freshwater sediment: Exposure 0.120 mg/kg, PNEC 52.3 mg/kg, RCR 0.002 Marine water: Exposure 0.00300 mg/l, PNEC 1 mg/l, RCR 0.003 marine sediment: Exposure 0.0157 mg/kg, PNEC 5.2 mg/kg, RCR 0.003 Soil: Exposure 0.0280 mg/kg, PNEC 4.59 mg/kg, RCR 0.006 Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC

3. Exposure estimation (Health 1)

factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

Assessment method	The Consexpo model has been used to estimate consumer exposures, unless otherwise indicated. Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.
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4. Guidance to check compliance with the exposure scenario (Health 1)

Use in Cosmetics, Consumer

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario Use in Coatings, Consumer

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Use in Coatings, Consumer
Process scope	Covers the use in coatings (paints, inks, adhesives, etc.), including exposures during use (including product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning.
Product category	PC9a Coatings and paints, thinners, paint removers.
Main sector	SU21 Consumer uses

Environment

Environmental release category	ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
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2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Product characteristics

Physical state	Liquid
Concentration details	Concentration of substance in product: <10%

Amounts used

Daily amount per site: 21.02 kg

Frequency and duration of use

Use in Coatings, Consumer

Continuous release.
Emission days: 300 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from wide dispersive use (regional only): 0.8
Emission factor - water	Release fraction to wastewater from wide dispersive use: 0.15
Emission factor - soil	Release fraction to soil from wide dispersive use (regional only): 0.01

Risk management measures

STP type	Municipal STP.
STP details	Estimated substance removal from wastewater via domestic sewage treatment: 87.5%

Conditions and measures related to external treatment of waste for disposal

Waste treatment	External treatment and disposal of waste should comply with applicable local and/or national regulations.
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2. Conditions of use affecting exposure (Non-industrial - Health 1)

Product characteristics

Physical state	Liquid, vapour pressure > 10 Pa (STP)
Concentration details	Concentration of substance in product: <10% Readily biodegradable. Non-hydrophobic.

Frequency and duration of use

For each use, avoid using for more than 1.1 hours.

For each use event, covers use amounts up to 500 g.

Other given operational conditions affecting Non-industrial exposure

Temperature	Covers use at ambient temperatures.
Room size	Covers use in room size of 20 m ³ .
Ventilation rate	Covers use under typical household ventilation.

Other given operational conditions affecting Non-industrial exposure

Consumer information	Ensure doors and windows are opened.
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3. Exposure estimation (Environment 1)

Assessment method	Used EUSES model.
Environmental exposure	Fresh water: Exposure 0.029 mg/l, PNEC 10 mg/l, RCR 0.003 freshwater sediment: Exposure 0.12 mg/kg, PNEC 52.3 mg/kg, RCR 0.003 Marine water: Exposure 0.003 mg/l, PNEC 1 mg/l, RCR 0.003 marine sediment: Exposure 0.0157 mg/kg, PNEC 5.2 mg/kg, RCR 0.003 Soil: Exposure 0.028 mg/kg, PNEC 4.59 mg/kg, RCR 0.006 Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Use in Coatings, Consumer

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

3. Exposure estimation (Health 1)

Assessment method

The Consexpo model has been used to estimate consumer exposures, unless otherwise indicated.

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

De-icing and anti-icing applications, Consumer

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	De-icing and anti-icing applications, Consumer
Process scope	Covers the use in coatings (paints, inks, adhesives, etc.), including exposures during use (including product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning.
Product category	PC4 Anti-freeze and de-icing products.
Main sector	SU21 Consumer uses

Environment

Environmental release category	ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
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2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Product characteristics

Physical state	Liquid
Concentration details	Concentration of substance in product: <30%

Amounts used

Daily amount per site: 21.02 kg

Frequency and duration of use

De-icing and anti-icing applications, Consumer

Continuous release.
Emission days: 300 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from wide dispersive use (regional only): 0.9
Emission factor - water	Release fraction to wastewater from wide dispersive use: 0.05
Emission factor - soil	Release fraction to soil from wide dispersive use (regional only): 0.05

Risk management measures

STP type	Municipal STP.
STP details	Estimated substance removal from wastewater via domestic sewage treatment: 87.5%

Conditions and measures related to external treatment of waste for disposal

Waste treatment	External treatment and disposal of waste should comply with applicable local and/or national regulations.
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2. Conditions of use affecting exposure (Non-industrial - Health 1)

Product characteristics

Physical state	Liquid, vapour pressure > 10 Pa (STP)
Concentration details	Concentration of substance in product: <30% Readily biodegradable. Non-hydrophobic.

Frequency and duration of use

For each use, avoid using for more than 0.5 hours.

For each use event, covers use amounts up to 500 g.

Other given operational conditions affecting Non-industrial exposure

Temperature	Covers use at ambient temperatures.
Ventilation rate	Covers use under typical household ventilation.

3. Exposure estimation (Environment 1)

Assessment method	Used EUSES model.
Environmental exposure	Fresh water: Exposure 0.0234 mg/l, PNEC 10 mg/l, RCR 0.002 freshwater sediment: Exposure 0.123 mg/kg, PNEC 52.3 mg/kg, RCR 0.002 Marine water: Exposure 0.00305 mg/l, PNEC 1 mg/l, RCR 0.003 marine sediment: Exposure 0.0160 mg/kg, PNEC 5.2 mg/kg, RCR 0.003 Soil: Exposure 0.0282 mg/kg, PNEC 4.59 mg/kg, RCR 0.006 Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC

3. Exposure estimation (Health 1)

factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

De-icing and anti-icing applications, Consumer

Assessment method	The Consexpo model has been used to estimate consumer exposures, unless otherwise indicated.
Exposure	Consumer - inhalation, long-term - systemic: Exposure 12.9 mg/m³, DNEL 43.9 mg/m³, RCR 0.29 Consumer - dermal, long-term - systemic: Exposure 3.3 mg/kg/day, DNEL 78 mg/kg/day, RCR 0.04 Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Biocidal products, Consumer

Identification

Product name	1-Methoxy-2-propanol
REACH registration number	01-2119457435-35-XXXX
CAS number	107-98-2
EC number	203-539-1
EU index number	603-064-00-3
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Use in Biocidal products, Consumer
Product category	PC8 Biocidal products
Main sector	SU21 Consumer uses

Environment

Environmental release category	ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
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2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Product characteristics

Physical state	Liquid
Concentration details	Concentration of substance in product: <10%

Frequency and duration of use

Continuous release.
Emission days: 365 days/year

Environmental factors not influenced by risk management measures

Dilution	Local freshwater dilution factor: 10 Local marine water dilution factor: 100
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Risk management measures

STP type	Municipal STP.
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Use in Biocidal products, Consumer

STP details Estimated substance removal from wastewater via domestic sewage treatment: 87.5%

2. Conditions of use affecting exposure (Non-industrial - Health 1)

Product characteristics

Physical state Liquid, vapour pressure > 10 Pa (STP)

Concentration details Covers concentrations up to 1.4 %.

Readily biodegradable. Non-hydrophobic.

Frequency and duration of use

Covers daily exposure up to 49.8minutes

Other given operational conditions affecting Non-industrial exposure

Temperature Covers use at ambient temperatures.

3. Exposure estimation (Environment 1)

Assessment method Used EUSES model.

Environmental exposure Fresh water: Exposure 0.029 mg/l, PNEC 10 mg/l, RCR 0.003
freshwater sediment: Exposure 0.120 mg/kg, PNEC 52.3 mg/kg, RCR 0.003
Marine water: Exposure 0.00300 mg/l, PNEC 1 mg/l, RCR 0.003
marine sediment: Exposure 0.0157 mg/kg, PNEC 5.2 mg/kg, RCR 0.003
Soil: Exposure 0.0280 mg/kg, PNEC 4.59 mg/kg, RCR 0.006

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC

3. Exposure estimation (Health 1)

factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>).

Assessment method The Consexpo model has been used to estimate consumer exposures, unless otherwise indicated.

Exposure Consumer - inhalation, long-term - systemic: Exposure 0.064 mg/m³, DNEL 43.9 mg/m³, RCR 0.001

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.