SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

Version 9.1
Revision Date 24.12.2025
Print Date 31.07.2026

GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

1.1 Product identifiers

Product name : Methyl salicylate

Product Number : 76631
Brand : Sigma-Aldrich
Index-No. : 607-749-00-8
REACH No. : 01-2119515671-44-XXXX
CAS-No. : 119-36-8

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Merck Life Science S.A.S
80 Rue de Luzais
F-38297 SAINT QUENTIN FALLAVIER CEDEX

Telephone : +33 (0)1 85 16 94 34
E-mail address : servicetechnique@merckgroup.com

1.4 Emergency telephone number

Emergency Phone # : +33 (0)9 75 18 14 07 (CHEMTREC)
+33 (0)1 45 42 59 59 (I.N.R.S.)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Sub-category 1B	H317: May cause an allergic skin reaction.
Reproductive toxicity, Category 2	H361d: Suspected of damaging the unborn child.
Long-term (chronic) aquatic hazard,	H412: Harmful to aquatic life with long

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Category 3	lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements :

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H361d	Suspected of damaging the unborn child.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Reduced Labelling (<= 125 ml)

Hazard pictograms :



Signal word	Danger
Hazard Statements	
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.
H361d	Suspected of damaging the unborn child.
Precautionary Statements	
P280	Wear protective gloves/ protective clothing/ eye protection/ face

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	protection.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard Statements	none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name : 2-Hydroxybenzoic acid methyl ester

Index-No. : 607-749-00-8

EC-No. : 204-317-7

Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)	M-Factor, SCL, ATE
methyl salicylate	119-36-8 204-317-7	>= 90 - <= 100	Acute toxicity estimate Acute oral toxicity: 890 mg/kg

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Show this safety data sheet to the doctor in attendance.

If inhaled : After inhalation: fresh air. Call in physician.

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In case of skin contact	:	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.
In case of eye contact	:	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
If swallowed	:	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Water Foam Carbon dioxide (CO2) Dry powder
Unsuitable extinguishing media	:	For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting	:	Combustible. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.
Hazardous combustion products	:	Carbon oxides

5.3 Advice for firefighters

Special protective equipment for fire-fighters	:	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
Further information	:	Prevent fire extinguishing water from contaminating surface water or the ground water system.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Advice for non-emergency personnel:
Do not breathe vapours, aerosols.
Avoid substance contact.
Ensure adequate ventilation.
Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Environmental precautions : Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10).
Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Hygiene measures : Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Further information on storage conditions : Tightly closed.

Storage class (TRGS 510) : 10, Combustible liquids

Further information on storage stability : Light sensitive.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
2-Hydroxybenzoic acid methyl ester	Worker DNEL, acute	inhalation	Systemic effects	285 mg/m3
	Worker DNEL, longterm	inhalation	Systemic effects	17,5 mg/m3
	Worker DNEL, longterm	dermal	Systemic effects	6 mg/kg
	Consumer DNEL, acute	inhalation	Systemic effects	213 mg/m3
	Consumer DNEL, acute	oral	Systemic effects	5 mg/kg
	Consumer DNEL, longterm	inhalation	Systemic effects	4 mg/m3
	Consumer DNEL, longterm	dermal	Systemic effects	3 mg/kg
	Consumer DNEL, longterm	oral	Systemic effects	1 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
2-Hydroxybenzoic acid methyl ester	Fresh water	0,0016 mg/l
	Fresh water sediment	0,0412 mg/kg
	Marine water	0,00016 mg/l
	Marine sediment	0,00412 mg/kg
	Sewage treatment plant	140 mg/l
	Soil	0,35 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Tightly fitting safety goggles

Hand protection
- Material : Chloroprene
- Break through time : 480 min
- Glove thickness : 0,65 mm

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Protective index	:	Full contact
Manufacturer	:	KCL 720 Camapren®
Material	:	Latex gloves
Break through time	:	120 min
Glove thickness	:	0,6 mm
Protective index	:	Splash contact
Manufacturer	:	Lapren® (KCL 706 / Aldrich Z677558, Size M)
Remarks	:	This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).
Skin and body protection	:	protective clothing
Respiratory protection	:	required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.
Recommended Filter type:	:	Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental exposure controls

Advice	:	Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid (20 °C, 1.013 hPa)
Color	:	light yellow
Odor	:	aromatic
Melting point/ range	:	-8 - -7 °C Method: lit.
Boiling point/boiling range	:	222 °C Method: lit.

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Flammability	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	96 °C Method: closed cup
Autoignition temperature	:	453 °C
Decomposition temperature	:	No data available
pH	:	No data available
Viscosity		
Viscosity, dynamic	:	1,535 mPa.s (25 °C)
Viscosity, kinematic	:	No data available
Flow time	:	No data available
Solubility(ies)		
Water solubility	:	0,625 g/l (30 °C) soluble
Partition coefficient: n-octanol/water	:	No data available
Vapor pressure	:	13 Pa (20 °C)
Relative density	:	1,179 (25 °C)
Density	:	1,174 g/mL (25 °C) Method: lit.
Relative vapour density	:	5,25 (Air = 1.0)

9.2 Other information

Explosives	:	Not classified as explosive.

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Oxidizing properties	:	none
Burning rate	:	No data available
Evaporation rate	:	No data available
Molecular weight	:	152,15 g/mol

SECTION 10: Stability and reactivity

10.1 Reactivity

Forms explosive mixtures with air on intense heating.
A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Hazardous reactions : Violent reactions possible with:

Strong oxidizing agents

10.4 Conditions to avoid

Conditions to avoid : Heat
Light.

Strong heating.

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - male and female - 887 mg/kg
(OECD Test Guideline 401)
Acute toxicity estimate Oral - 890 mg/kg
(Acute toxicity estimate according to Regulation (EC) No. 1272/2008)
Inhalation: No data available
LD50 Dermal - Rabbit - > 5.000 mg/kg
Remarks: (IUCLID)

Skin corrosion/irritation
Skin - Rabbit
Result: slight irritation - 4 h

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(OECD Test Guideline 404)

Serious eye damage/eye irritation
Eyes - Rabbit
Result: Irreversible effects on the eye - 5 min
(OECD Test Guideline 491)

Respiratory or skin sensitization
May cause an allergic skin reaction. (ECHA)

Germ cell mutagenicity
Test Type: Ames test
Test system: S. typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster lung cells
Metabolic activation: without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Carcinogenicity
No data available

Reproductive toxicity
Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

11.2 Additional Information

Endocrine disrupting properties

Product:

Assessment	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Repeated dose toxicity - Rat - male and female - Oral - 2 yr - No observed adverse effect level - 50 mg/kg
Remarks: (ECHA)

RTECS: VO4725000
Mild chronic salicylate intoxication is termed salicylism. Symptoms include: headache, dizziness, ringing in the ears, difficulty in hearing, dimness of vision, mental confusion, lassitude, drowsiness, sweating, thirst, hyperventilation, nausea, vomiting, and occasionally diarrhea. A more severe degree of salicylate intoxication is characterized by more

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pronounced CNS disturbances (including generalized convulsions and coma), skin eruptions, and marked alterations in acid-base balance.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

Components:

methyl salicylate:

Toxicity to algae/aquatic plants	:	ErC50 (Desmodesmus subspicatus (green algae)): 27 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
Toxicity to microorganisms	:	EC50 (Pseudomonas putida): 380 mg/l End point: Growth rate Exposure time: 16 h Test Type: static test Remarks: (ECHA)

Ecotoxicology Assessment

Chronic aquatic toxicity	:	Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Components:

methyl salicylate:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge, non-adapted Concentration: 10 mg/l Result: Readily biodegradable. Biodegradation: 98,4 % Exposure time: 28 d Method: OECD Test Guideline 301B
BOD/COD	:	BOD/COD: 57 % Remarks: (IUCLID)

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

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12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

No data available

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information

14.1 UN number or ID number

ADR : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA_P : Not regulated as a dangerous good

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA_P : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good

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IMDG	:	Not regulated as a dangerous good
IATA_P	:	Not regulated as a dangerous good

14.4 Packing group

ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA (Cargo)	:	Not regulated as a dangerous good
IATA_P (Passenger)	:	Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks	:	Not classified as dangerous in the meaning of transport regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 3 Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.		Not applicable

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15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information : The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See

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Annex: Exposure scenario

Identified uses:

Use: Industrial use

SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites
SU 3, SU9, SU 10: Industrial uses: Uses of substances as such or in preparations at industrial sites, Manufacture of fine chemicals, Formulation [mixing] of preparations and/ or re-packaging (excluding alloys)
PC19: Intermediate **PC21:** Laboratory chemicals **PC39:** Cosmetics, personal care products
PROC1: Use in closed process, no likelihood of exposure **PROC2:** Use in closed, continuous process with occasional controlled exposure **PROC3:** Use in closed batch process (synthesis or formulation) **PROC4:** Use in batch and other process (synthesis) where opportunity for exposure arises **PROC5:** Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact) **PROC8a:** Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities **PROC8b:** Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities **PROC9:** Transfer of substance or preparation into small containers (dedicated filling line, including weighing) **PROC10:** Roller application or brushing **PROC14:** Production of preparations or articles by tabletting, compression, extrusion, pelletisation **PROC15:** Use as laboratory reagent
ERC1, ERC2, ERC6a, ERC6b: Manufacture of substances, Formulation of preparations, Industrial use resulting in manufacture of another substance (use of intermediates), Industrial use of reactive processing aids

Use: Professional use

SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
PC21: Laboratory chemicals **PC39:** Cosmetics, personal care products
PROC15: Use as laboratory reagent
ERC2, ERC6a, ERC6b, ERC8a, ERC8d: Formulation of preparations, Industrial use resulting in manufacture of another substance (use of intermediates), Industrial use of reactive processing aids, Wide dispersive indoor use of processing aids in open systems, Wide dispersive outdoor use of processing aids in open systems

Use: Consumer use

SU 21: Consumer uses: Private households (= general public = consumers)
SU 21: Consumer uses: Private households (= general public = consumers)
PC39: Cosmetics, personal care products
ERC8a, ERC8d: Wide dispersive indoor use of processing aids in open systems, Wide

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dispersive outdoor use of processing aids in open systems

1. Short title of Exposure Scenario: Industrial use

Main User Groups	:	**SU 3**
Sectors of end-use	:	**SU 3, SU9, SU 10**
Chemical product category	:	**PC19, PC21, PC39**
Process categories	:	**PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC14, PROC15**
Environmental Release Categories	:	**ERC1, ERC2, ERC6a, ERC6b:**

2. Exposure scenario

2.1 Contributing scenario controlling environmental exposure for: ERC1

Daily amount per site (Msafe) : 4 kg

Environment factors not influenced by risk management

Flow rate	:	18.000 m3/d
Dilution Factor (River)	:	10
Dilution Factor (Coastal Areas)	:	100

Other given operational conditions affecting environmental exposure

Number of emission days per year	:	20
Emission or Release Factor: Air	:	2 %
Emission or Release Factor: Water	:	6 %
Emission or Release Factor: Soil	:	0,01 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant	:	Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent	:	2.000 m3/d
Percentage removed from waste water	:	87,7 %

2.1 Contributing scenario controlling environmental exposure for: ERC2

Daily amount per site (Msafe) : 13 kg

Environment factors not influenced by risk management

Flow rate	:	18.000 m3/d
Dilution Factor (River)	:	10

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Dilution Factor (Coastal Areas) : 100

Other given operational conditions affecting environmental exposure

Number of emission days per year : 10
Emission or Release Factor: Air : 2,5 %
Emission or Release Factor: Water : 2 %
Emission or Release Factor: Soil : 0,01 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant : Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent : 2.000 m3/d
Percentage removed from waste water : 87,7 %

2.1 Contributing scenario controlling environmental exposure for: ERC6a

Daily amount per site (Msafe) : 13 kg

Environment factors not influenced by risk management

Flow rate : 18.000 m3/d
Dilution Factor (River) : 10
Dilution Factor (Coastal Areas) : 100

Other given operational conditions affecting environmental exposure

Number of emission days per year : 20
Emission or Release Factor: Air : 5 %
Emission or Release Factor: Water : 2 %
Emission or Release Factor: Soil : 0,1 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant : Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent : 2.000 m3/d
Percentage removed from waste water : 87,7 %

2.1 Contributing scenario controlling environmental exposure for: ERC6b

Daily amount per site (Msafe) : 5 kg

Environment factors not influenced by risk management

Flow rate : 18.000 m3/d
Dilution Factor (River) : 10
Dilution Factor (Coastal Areas) : 100

Other given operational conditions affecting environmental exposure

Number of emission days per year : 20
Emission or Release Factor: Air : 0,1 %
Emission or Release Factor: Water : 5 %
Emission or Release Factor: Soil : 0,025 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant : Municipal sewage treatment plant
Flow rate of sewage treatment : 2.000 m3/d

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plant effluent
Percentage removed from waste water : 87,7 %

2.5 Contributing scenario controlling worker exposure for: PROC1, PROC2

Product characteristics
Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Low volatile liquid
Process Temperature : < 78 °C

Frequency and duration of use
Frequency of use : 8 hours/day

Other operational conditions affecting workers exposure
Outdoor / Indoor : Indoor without local exhaust ventilation (LEV)

Organisational measures to prevent /limit releases, dispersion and exposure
Covers daily exposures up to 8 hours.

Additional good practice advice beyond the REACH Chemical Safety Assessment
Wear suitable gloves (tested to EN374) and eye protection.

2.6 Contributing scenario controlling worker exposure for: PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC14, PROC15

Product characteristics
Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Low volatile liquid
Process Temperature : < 78 °C

Frequency and duration of use
Frequency of use : 8 hours/day

Other operational conditions affecting workers exposure
Outdoor / Indoor : Indoor with local exhaust ventilation (LEV)

Technical conditions and measures
Use only in area provided with appropriate exhaust ventilation.

Organisational measures to prevent /limit releases, dispersion and exposure
Covers daily exposures up to 8 hours.

Additional good practice advice beyond the REACH Chemical Safety Assessment
Wear suitable gloves (tested to EN374) and eye protection.

3. Exposure estimation and reference to its source

Environment

Contributing Scenario	Exposure Assessment Method	Specific conditions	Compartment	Value	Level of Exposure	RCR*
ERC1	ECETOC TRA		Fresh water		4kg/day	1
ERC2	ECETOC TRA		Fresh water		13kg/day	1
ERC6a	ECETOC TRA		Fresh water		13kg/day	1

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ERC6b	ECETOC TRA		Fresh water		5kg/day	1

Workers

Contributing Scenario	Exposure Assessment Method	Specific conditions	Value	Level of Exposure	RCR*
PROC1	ECETOC TRA	longterm, inhalative, systemic			0,002
PROC1	ECETOC TRA	longterm, dermal, systemic			0,057
PROC1		longterm, combined, systemic			0,059
PROC2	ECETOC TRA	longterm, inhalative, systemic			0,361
PROC2	ECETOC TRA	longterm, dermal, systemic			0,229
PROC2		longterm, combined, systemic			0,59

*Risk characterisation ratio

PROC3	ECETOC TRA	longterm, inhalative, systemic			0,108
PROC3	ECETOC TRA	longterm, dermal, systemic			0,006
PROC3		longterm, combined, systemic			0,11
PROC4	ECETOC TRA	longterm, inhalative, systemic			0,181
PROC4	ECETOC TRA	longterm, dermal, systemic			0,114
PROC4		longterm, combined, systemic			0,29
PROC5	ECETOC TRA	longterm, inhalative, systemic			0,181
PROC5	ECETOC TRA	longterm, dermal, systemic			0,011
PROC5		longterm, combined, systemic			0,19

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PROC8a	ECETOC TRA	longterm, inhalative, systemic			0,361
PROC8a	ECETOC TRA	longterm, dermal, systemic			0,023
PROC8a		longterm, combined, systemic			0,38
PROC8b	ECETOC TRA	longterm, inhalative, systemic			0,054
PROC8b	ECETOC TRA	longterm, dermal, systemic			0,114
PROC8b		longterm, combined, systemic			0,17
PROC9	ECETOC TRA	longterm, inhalative, systemic			0,181
PROC9	ECETOC TRA	longterm, dermal, systemic			0,114
PROC9		longterm, combined, systemic			0,29
PROC10	ECETOC TRA	longterm, inhalative, systemic			0,361
PROC10	ECETOC TRA	longterm, dermal, systemic			0,229
PROC10		longterm, combined, systemic			0,59
PROC14	ECETOC TRA	longterm, inhalative, systemic			0,181
PROC14	ECETOC TRA	longterm, dermal, systemic			0,057
PROC14		longterm, combined, systemic			0,24
PROC15	ECETOC TRA	longterm, inhalative, systemic			0,181
PROC15	ECETOC TRA	longterm, dermal, systemic			0,006
PROC15		longterm, combined,			0,19

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		systemic			

*Risk characterisation ratio

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

For scaling of worker exposure assessments performed with ECETOC TRA, please consult the Merck tool ScIDeEx® at www.merckmillipore.com/scideex.
Please refer to the following documents: ECHA Guidance on information requirements and chemical safety assessment Chapter R.12: Use descriptor system; ECHA Guidance for downstream users; ECHA Guidance on information requirements and chemical safety assessment Part D: Exposure Scenario Building, Part E: Risk Characterisation and Part G: Extending the SDS; VCI/Cefic REACH Practical Guides on Exposure Assessment and Communications in the Supply Chain; CEFIC Guidance Specific Environmental Release Categories (SPERCs).

1. Short title of Exposure Scenario: Professional use

Main User Groups	: **SU 22**
Sectors of end-use	: **SU 22**
Chemical product category	: **PC21, PC39**
Process categories	: **PROC15**
Environmental Release Categories	: **ERC2, ERC6a, ERC6b, ERC8a, ERC8d:**

2. Exposure scenario

2.1 Contributing scenario controlling environmental exposure for: ERC2

Daily amount per site (Msafe) : 13 kg

Environment factors not influenced by risk management

Flow rate	: 18.000 m3/d
Dilution Factor (River)	: 10
Dilution Factor (Coastal Areas)	: 100

Other given operational conditions affecting environmental exposure

Number of emission days per year	: 10
Emission or Release Factor: Air	: 2,5 %
Emission or Release Factor: Water	: 2 %

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Emission or Release Factor: Soil : 0,01 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant : Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent : 2.000 m3/d
Percentage removed from waste water : 87,7 %

2.1 Contributing scenario controlling environmental exposure for: ERC6a

Daily amount per site (Msafe) : 13 kg

Environment factors not influenced by risk management

Flow rate : 18.000 m3/d
Dilution Factor (River) : 10
Dilution Factor (Coastal Areas) : 100

Other given operational conditions affecting environmental exposure

Number of emission days per year : 20
Emission or Release Factor: Air : 5 %
Emission or Release Factor: Water : 2 %
Emission or Release Factor: Soil : 0,1 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant : Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent : 2.000 m3/d
Percentage removed from waste water : 87,7 %

2.1 Contributing scenario controlling environmental exposure for: ERC6b

Daily amount per site (Msafe) : 5 kg

Environment factors not influenced by risk management

Flow rate : 18.000 m3/d
Dilution Factor (River) : 10
Dilution Factor (Coastal Areas) : 100

Other given operational conditions affecting environmental exposure

Number of emission days per year : 20
Emission or Release Factor: Air : 0,1 %
Emission or Release Factor: Water : 5 %
Emission or Release Factor: Soil : 0,025 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant : Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent : 2.000 m3/d
Percentage removed from waste water : 87,7 %

2.1 Contributing scenario controlling environmental exposure for: ERC8a

Daily amount per site (Msafe) : 0,22 kg

Environment factors not influenced by risk management

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Flow rate	: 18.000 m3/d
Dilution Factor (River)	: 10
Dilution Factor (Coastal Areas)	: 100

Other given operational conditions affecting environmental exposure

Number of emission days per year	: 365
Emission or Release Factor: Air	: 100 %
Emission or Release Factor: Water	: 100 %
Emission or Release Factor: Soil	: 0 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant	: Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent	: 2.000 m3/d
Percentage removed from waste water	: 87,7 %

2.1 Contributing scenario controlling environmental exposure for: ERC8d

Daily amount per site (Msafe)	: 0,22 kg

Environment factors not influenced by risk management

Flow rate	: 18.000 m3/d
Dilution Factor (River)	: 10
Dilution Factor (Coastal Areas)	: 100

Other given operational conditions affecting environmental exposure

Number of emission days per year	: 365
Emission or Release Factor: Air	: 100 %
Emission or Release Factor: Water	: 100 %
Emission or Release Factor: Soil	: 20 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant	: Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent	: 2.000 m3/d
Percentage removed from waste water	: 87,7 %

2.6 Contributing scenario controlling worker exposure for: PROC15

Product characteristics

Concentration of the Substance in Mixture/Article	: Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: Low volatile liquid
Process Temperature	: < 78 °C

Frequency and duration of use

Frequency of use	: 8 hours/day

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor with local exhaust ventilation (LEV)

Technical conditions and measures

Use only in area provided with appropriate exhaust ventilation.

Organisational measures to prevent /limit releases, dispersion and exposure

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Covers daily exposures up to 8 hours.

Additional good practice advice beyond the REACH Chemical Safety Assessment
Wear suitable gloves (tested to EN374) and eye protection.

3. Exposure estimation and reference to its source

Environment

Contributing Scenario	Exposure Assessment Method	Specific conditions	Compartment	Value	Level of Exposure	RCR*
ERC2	ECETOC TRA		Fresh water		13kg/day	1
ERC6a	ECETOC TRA		Fresh water		13kg/day	1
ERC6b	ECETOC TRA		Fresh water		5kg/day	1
ERC8a	ECETOC TRA		Fresh water		0,22kg/day	1
ERC8d	ECETOC TRA		Fresh water		0,22kg/day	1

Workers

Contributing Scenario	Exposure Assessment Method	Specific conditions	Value	Level of Exposure	RCR*
PROC15	ECETOC TRA	longterm, inhalative, systemic			0,361
PROC15	ECETOC TRA	longterm, dermal, systemic			0,006
PROC15	ECETOC TRA	longterm, combined, systemic			0,37

*Risk characterisation ratio

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

For scaling of worker exposure assessments performed with ECETOC TRA, please consult the Merck tool ScIDeEx® at www.merckmillipore.com/scideex.
Please refer to the following documents: ECHA Guidance on information requirements and chemical safety assessment Chapter R.12: Use descriptor system; ECHA Guidance for downstream users; ECHA Guidance on information requirements and chemical safety assessment Part D: Exposure Scenario Building, Part E: Risk Characterisation and Part G: Extending the SDS; VCI/Cefic REACH Practical Guides on Exposure Assessment and Communications in the Supply Chain; CEFIC Guidance Specific Environmental Release Categories (SPERCs).

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1. Short title of Exposure Scenario: Consumer use

Main User Groups	: **SU 21**
Sectors of end-use	: **SU 21**
Chemical product category	: **PC39**
Environmental Release Categories	: **ERC8a, ERC8d:**

2. Exposure scenario

2.1 Contributing scenario controlling environmental exposure for: ERC8a

Daily amount per site (Msafe) : 0,22 kg

Environment factors not influenced by risk management

Flow rate	: 18.000 m3/d
Dilution Factor (River)	: 10
Dilution Factor (Coastal Areas)	: 100

Other given operational conditions affecting environmental exposure

Number of emission days per year	: 365
Emission or Release Factor: Air	: 100 %
Emission or Release Factor: Water	: 100 %
Emission or Release Factor: Soil	: 0 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant	: Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent	: 2.000 m3/d
Percentage removed from waste water	: 87,7 %

2.1 Contributing scenario controlling environmental exposure for: ERC8d

Daily amount per site (Msafe) : 0,22 kg

Environment factors not influenced by risk management

Flow rate	: 18.000 m3/d
Dilution Factor (River)	: 10
Dilution Factor (Coastal Areas)	: 100

Other given operational conditions affecting environmental exposure

Number of emission days per year	: 365
Emission or Release Factor: Air	: 100 %
Emission or Release Factor: Water	: 100 %
Emission or Release Factor: Soil	: 20 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant	: Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent	: 2.000 m3/d

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Percentage removed from waste water : 87,7 %

3. Exposure estimation and reference to its source

Environment

Contributing Scenario	Exposure Assessment Method	Specific conditions	Compartment	Value	Level of Exposure	RCR*
ERC8a	ECETOC TRA		Fresh water		0,22kg/day	1
ERC8d	ECETOC TRA		Fresh water		0,22kg/day	1

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Please refer to the following documents: ECHA Guidance on information requirements and chemical safety assessment Chapter R.12: Use descriptor system; ECHA Guidance for downstream users; ECHA Guidance on information requirements and chemical safety assessment Part D: Exposure Scenario Building, Part E: Risk Characterisation and Part G: Extending the SDS; VCI/Cefic REACH Practical Guides on Exposure Assessment and Communications in the Supply Chain; CEFIC Guidance Specific Environmental Release Categories (SPERCs).

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