Safety Data Sheet

24 Mix VOCs in methanol

Version：V2.0.0.1
Report No.：BWQ9133-2016-MSDS-EP
Creation Date：2025/12/22
Revision Date：-

*Prepared in accordance with EU REACH Regulation (REACH 1907/2006 with amendment 2020/878)

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

1.1 Product identifier

Product Name	24 Mix VOCs in methanol
Cat No.	BWQ9133-2016
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable
REACH Registration Number	-
UFI	No information available

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

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

1.3 Details of the supplier of the Safety Data Sheet

Name of the company	Weiyel Inc
Address of the company	Hedian Light Industrial Park, Chengguan Town, Shangcheng County, Xinyang City, Henan Province, China
Post code	465350
Telephone number	010-58103678
Fax number	010-84840368
E-mail address	info@weiyel.com

1.4 Emergency telephone number

Emergency telephone number	010-58103678
Opening hours	24h

2 Hazards identification

2.1 CLP classification according to Regulation (EC) No. 1272/2008 with amendment 2023/707

Flammable liquids	Category 2
Acute Toxicity - Oral	Category 3
Acute Toxicity - Dermal	Category 3
Acute Toxicity - Inhalation	Category 3
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A

Specific target organ toxicity - single exposure	Category 1
Hazardous to the aquatic environment - long-term (chronic) hazard	Category 3

2.2 Label elements

Hazard pictograms	
Signal word	Danger

Hazard statements

H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H311	Toxic in contact with skin
H331	Toxic if inhaled
H340	May cause genetic defects
H350	May cause cancer
H370	Causes damage to organs
H412	Harmful to aquatic life with long lasting effects
EUH066	Repeated exposure may cause skin dryness or cracking

Precautionary statements

- Prevention

P201	Obtain special instructionsbefore use.
P202	Do not handle until allsafety precautions havebeen read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe gas/mist/vapour/spray.
P264	Wash hands and other parts of the body (if related) thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

- Response

P311	Call a POISON CENTER/ doctor.
P321	Specific treatment (see related instructions on the label).
P330	Rinse mouth.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P370+P378	Small fire: dry chemical, CO_2 or alcohol-resistant foam; Large fire: alcohol-resistant foam; Fire involving tanks, rail tank cars or highway tanks: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].

◆ Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.

◆ Disposal

P501	Dispose of contents/container in accordance with local/regional/national/ international regulations.

2.3 Other hazards

◆ Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Methanol	Not PBT/vPvB
N-hexane	Not PBT/vPvB
Hexamethyldisiloxane	Not PBT/vPvB
Heptane	Insufficient information, temporarily unable to evaluate
Acetone	Not PBT/vPvB
Ethyl acetate	Not PBT/vPvB
Propan-2-ol	Not PBT/vPvB
Benzene	Not PBT/vPvB
Pentan-3-one	Not PBT/vPvB
Dec-1-ene	Not PBT/vPvB
Toluene	Not PBT/vPvB
N-butyl acetate	Not PBT/vPvB
Ethylbenzene	Not PBT/vPvB
m-xylene	Not PBT/vPvB
p-xylene	Not PBT/vPvB
Heptan-2-one	Not PBT/vPvB
o-xylene	Not PBT/vPvB
Cyclopentanone	Not PBT/vPvB
2-methoxy-1-methylethyl acetate	Not PBT/vPvB

Dodec-1-ene	Not PBT/vPvB
Styrene	Not PBT/vPvB
Ethyl lactate	Insufficient information, temporarily unable to evaluate
Anisole	Not PBT/vPvB
Nonan-2-one	Not PBT/vPvB
Benzaldehyde	Not PBT/vPvB

◆ Results of endocrine disrupting properties assessment

Component	Results of endocrine disrupting properties assessment [according to (EU) No 2017/2100 or (EU) No 2018/605]
Methanol	Insufficient information, temporarily unable to evaluate
N-hexane	Insufficient information, temporarily unable to evaluate
Hexamethyldisiloxane	Insufficient information, temporarily unable to evaluate
Heptane	Insufficient information, temporarily unable to evaluate
Acetone	Insufficient information, temporarily unable to evaluate
Ethyl acetate	Insufficient information, temporarily unable to evaluate
Propan-2-ol	Insufficient information, temporarily unable to evaluate
Benzene	Insufficient information, temporarily unable to evaluate
Pentan-3-one	Insufficient information, temporarily unable to evaluate
Dec-1-ene	Insufficient information, temporarily unable to evaluate
Toluene	Insufficient information, temporarily unable to evaluate
N-butyl acetate	Insufficient information, temporarily unable to evaluate
Ethylbenzene	Insufficient information, temporarily unable to evaluate
m-xylene	Insufficient information, temporarily unable to evaluate
p-xylene	Insufficient information, temporarily unable to evaluate
Heptan-2-one	Insufficient information, temporarily unable to evaluate
o-xylene	Insufficient information, temporarily unable to evaluate
Cyclopentanone	Insufficient information, temporarily unable to evaluate
2-methoxy-1-methylethyl acetate	Insufficient information, temporarily unable to evaluate
Dodec-1-ene	Insufficient information, temporarily unable to evaluate
Styrene	Insufficient information, temporarily unable to evaluate
Ethyl lactate	Insufficient information, temporarily unable to evaluate
Anisole	Insufficient information, temporarily unable to evaluate
Nonan-2-one	Insufficient information, temporarily unable to evaluate
Benzaldehyde	Insufficient information, temporarily unable to evaluate

◆ Other

	Not applicable.

3 Composition/information on ingredients

3.1 Substance

	Not applicable

3.2 Mixture

Component	Weight % content(or range)	Classification according to Regulation (EC) No. 1272/2008 with amendment 2023/707 [CLP]	Specific Conc. Limits, M-factors
Methanol CAS : 67-56-1 EC : 200-659-6 Index No. : 603-001-00-X	94.28	Flammable liquids, Category 2, H225; Acute Toxicity - Oral, Category 3, H301; Acute Toxicity - Dermal, Category 3, H311; Acute Toxicity - Inhalation, Category 3, H331; Specific target organ toxicity - single exposure, Category 1, H370	H370:C ≥ 10%|H371:3% ≤ C < 10%
N-hexane CAS : 110-54-3 EC : 203-777-6 Index No. : 601-037-00-0	0.23	Flammable liquids, Category 2, H225; Aspiration hazard, Category 1, H304; Skin Corrosion/Irritation, Category 2, H315; Specific target organ toxicity - single exposure; narcotic effects, Category 3, H336; Reproductive toxicity, Category 2, H361; Specific target organ toxicity - repeated exposure, Category 1, H372; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
Hexamethyldisiloxane CAS : 107-46-0 EC : 203-492-7 Index No. : -	0.23	Flammable liquids, Category 2, H225; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
Heptane CAS : 142-82-5 EC : 205-563-8 Index No. : 601-008-00-2	0.23	Flammable liquids, Category 2, H225; Aspiration hazard, Category 1, H304; Skin Corrosion/Irritation, Category 2, H315; Specific target organ toxicity - single exposure; narcotic effects, Category 3, H336; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410	-
Acetone CAS : 67-64-1 EC : 200-662-2 Index No. : 606-001-00-8	0.23	Flammable liquids, Category 2, H225; Serious eye damage/irritation, Category 2, H319; Specific target organ toxicity - single exposure; narcotic effects, Category 3, H336; Repeated exposure may cause skin dryness or cracking, EUH066	-
Ethyl acetate CAS : 141-78-6 EC : 205-500-4 Index No. : 607-022-00-5	0.23	Flammable liquids, Category 2, H225; Serious eye damage/irritation, Category 2, H319; Specific target organ toxicity - single exposure; narcotic effects, Category 3, H336; Repeated exposure may cause skin dryness or cracking, EUH066	-
Propan-2-ol CAS : 67-63-0 EC : 200-661-7 Index No. : 603-117-00-0	0.23	Flammable liquids, Category 2, H225; Serious eye damage/irritation, Category 2, H319; Specific target organ toxicity - single exposure; narcotic effects, Category 3, H336	-
Benzene	0.23	Flammable liquids, Category 2, H225;	-

CAS : 71-43-2 EC : 200-753-7 Index No. : 601-020-00-8		Aspiration hazard, Category 1, H304; Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation, Category 2, H319; Germ cell mutagenicity, Category 1B, H340; Carcinogenicity, Category 1A, H350; Specific target organ toxicity - repeated exposure, Category 1, H372	
Pentan-3-one CAS : 96-22-0 EC : 202-490-3 Index No. : 606-006-00-5	0.23	Flammable liquids, Category 2, H225; Specific target organ toxicity - single exposure; respiratory tract irritation, Category 3, H335; Specific target organ toxicity - single exposure; narcotic effects, Category 3, H336; Repeated exposure may cause skin dryness or cracking, EUH066	-
Dec-1-ene CAS : 872-05-9 EC : 212-819-2 Index No. : -	0.23	Flammable liquids, Category 3, H226; Aspiration hazard, Category 1, H304; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410	M=1
Toluene CAS : 108-88-3 EC : 203-625-9 Index No. : 601-021-00-3	0.23	Flammable liquids, Category 2, H225; Aspiration hazard, Category 1, H304; Skin Corrosion/Irritation, Category 2, H315; Specific target organ toxicity - single exposure; narcotic effects, Category 3, H336; Reproductive toxicity, Category 2, H361; Specific target organ toxicity - repeated exposure, Category 2, H373	-
N-butyl acetate CAS : 123-86-4 EC : 204-658-1 Index No. : 607-025-00-1	0.23	Flammable liquids, Category 3, H226; Specific target organ toxicity - single exposure; narcotic effects, Category 3, H336; Repeated exposure may cause skin dryness or cracking, EUH066	-
Ethylbenzene CAS : 100-41-4 EC : 202-849-4 Index No. : 601-023-00-4	0.23	Flammable liquids, Category 2, H225; Aspiration hazard, Category 1, H304; Acute Toxicity - Inhalation, Category 4, H332; Specific target organ toxicity - repeated exposure, Category 2, H373	-
m-xylene CAS : 108-38-3 EC : 203-576-3 Index No. : 601-022-00-9	0.23	Flammable liquids, Category 3, H226; Acute Toxicity - Dermal, Category 4, H312; Skin Corrosion/Irritation, Category 2, H315; Acute Toxicity - Inhalation, Category 4, H332	-
p-xylene CAS : 106-42-3 EC : 203-396-5 Index No. : 601-022-00-9	0.23	Flammable liquids, Category 3, H226; Acute Toxicity - Dermal, Category 4, H312; Skin Corrosion/Irritation, Category 2, H315; Acute Toxicity - Inhalation, Category 4, H332	-
Heptan-2-one CAS : 110-43-0 EC : 203-767-1 Index No. : 606-024-00-3	0.23	Flammable liquids, Category 3, H226; Acute Toxicity - Oral, Category 4, H302; Acute Toxicity - Inhalation, Category 4, H332	-
o-xylene CAS : 95-47-6 EC : 202-422-2 Index No. : 601-022-00-9	0.23	Flammable liquids, Category 3, H226; Acute Toxicity - Dermal, Category 4, H312; Skin Corrosion/Irritation, Category 2, H315; Acute Toxicity - Inhalation, Category 4, H332	-
Cyclopentanone CAS : 120-92-3 EC : 204-435-9	0.23	Flammable liquids, Category 3, H226; Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation,	-

Index No. : 606-025-00-9		Category 2, H319	
2-methoxy-1-methylethyl acetate CAS : 108-65-6 EC : 203-603-9 Index No. : 607-195-00-7	0.23	Flammable liquids, Category 3, H226	-
Dodec-1-ene CAS : 112-41-4 EC : 203-968-4 Index No. : -	0.23	Aspiration hazard, Category 1, H304	-
Styrene CAS : 100-42-5 EC : 202-851-5 Index No. : 601-026-00-0	0.23	Flammable liquids, Category 3, H226; Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation, Category 2, H319; Acute Toxicity - Inhalation, Category 4, H332; Reproductive toxicity, Category 2, H361; Specific target organ toxicity - repeated exposure, Category 1, H372	-
Ethyl lactate CAS : 97-64-3 EC : 202-598-0 Index No. : 607-129-00-7	0.23	Flammable liquids, Category 3, H226; Serious eye damage/irritation, Category 1, H318; Specific target organ toxicity - single exposure; respiratory tract irritation, Category 3, H335	-
Anisole CAS : 100-66-3 EC : 202-876-1 Index No. : -	0.23	Flammable liquids, Category 3, H226	-
Nonan-2-one CAS : 821-55-6 EC : 212-480-0 Index No. : -	0.23	Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation, Category 2, H319; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 3, H412	-
Benzaldehyde CAS : 100-52-7 EC : 202-860-4 Index No. : 605-012-00-5	0.23	Acute Toxicity - Oral, Category 4, H302	-

4 First-aid measures

4.1 Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Skin contact	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
Ingestion	Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Refer for medical attention.
Inhalation	Fresh air, rest. Refer for medical attention.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

4.2 Most important symptoms/effects, acute and delayed

1	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

4.3 Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Small fire: dry chemical, CO_2 or alcohol-resistant foam; Large fire: alcohol-resistant foam; Fire involving tanks, rail tank cars or highway tanks: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out.
Unsuitable extinguishing media	Use of water spray when fighting fire may be inefficient.

5.2 Specific hazards arising from the substance or mixture

1	Will form explosive mixtures with air.
2	Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/ or vapour concentration.
3	Vapours may travel to source of ignition and flash back.
4	Liquid and vapour are flammable.
5	Development of hazardous combustion gases or vapor possible in the event of fire.
6	May expansion or decompose explosively when heated or involved in fire.

5.3 Advice for firefighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

1	Avoid breathing vapours and contacting with skin and eye.
2	Beware of vapours accumulating to form explosive concentrations.
3	Vapours can accumulate in low areas.
4	Emergency personnel wear positive pressure self-contained breathing apparatus. Wear protective and anti-static clothing. Wear chemical impermeable gloves.
5	Use personal protective equipment,do not breathe gas/mist/vapour/spray.
6	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
7	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

1	It is recommended that emergency personnel wear positive pressure self-contained breathing apparatus and wear anti-static clothing.
2	In case of small amount of spillage, use clean non sparking tools to collect absorption materials.
3	In case of large amount of spillage, construct cofferdam or dig a hole to collect the spillage. Use foam cover to

	reduce evaporation. Water spray mist can reduce evaporation, but can not reduce the flammability of the leakage in the restricted space.
4	Collect absorbent material using a clean, non-sparking tool.
5	Cover with anti-solvent foam to reduce evaporation.
6	Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
7	Water spray reduces evaporation but does not reduce the flammability of spills in confined spaces.
8	Cut off the source of the leak as much as possible.
9	Keep leaks in a ventilated place.
10	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
11	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
12	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container.
13	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

6.4 Reference to other sections

1	Personal Protective Equipment advice is contained in Section 8 of the SDS.
2	Disposal considerations advice is contained in Section 13 of the SDS.

7 Handling and storage

7.1 Precautions for safe handling

◆ Protective measures

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.

◆ Measures to prevent fire

1	Use only non-sparking tools.
2	To prevent fire caused by electrostatic discharge steam, equipment on all metal parts should be grounded.
3	Use explosion proof equipment.
4	Keep away from heat/sparks/open flames/ hot surfaces.

◆ Measures to prevent aerosol and dust generation

1	Not applicable.

◆ Advice on general occupational hygiene

1	Wash hands and face after using the substances.
2	Replace the contaminated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

7.3 Specific end use(s)

1	In addition to use mentioned in the Section 1.2, unforeseen other specific end uses.

8 Exposure controls/personal protection

8.1 Control parameters

◆Occupational exposure limit values

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m³	ppm	mg/m³
Methanol	Japan - JSOH(2024–2025)	200	260	-	-
	Permissible exposure standards for workers in the workplace	200	262	250	327.5
	European Union	200	260	-	-
	France	200	260	-	-
	Germany (AGS)	100	130	200	260
	Germany (DFG)	100	130	200	260
N-hexane	Japan - JSOH(2024–2025)	40	140	-	-
	Permissible exposure standards for workers in the workplace	50	176	75	220
	European Union	20	72	-	-
	France	20	72	-	-
	Germany (AGS)	50	180	400	1440
	Germany (DFG)	50	180	400	1440
Heptane	Japan - JSOH(2024–2025)	200	820	-	-
	Permissible exposure standards for workers in the workplace	400	1640	500	1640
	European Union	500	2085	-	-
	France	400	1668	500	2085
	Germany (AGS)	500	2100	500	2100
	Germany (DFG)	500	2100	500	2100
Acetone	Japan - JSOH(2024–2025)	200	475	-	-
	Permissible exposure standards for workers in the workplace	200	475	250	593.75

	European Union	500	1210	-	-
	France	500	1210	1000	2420
	Germany (AGS)	500	1200	1000	2400
	Germany (DFG)	500	1200	1000	2400
Ethyl acetate	Japan - JSOH(2024–2025)	200	720	-	-
	Permissible exposure standards for workers in the workplace	400	1440	500	1440
	European Union	200	734	400	1468
	France	200	734	400	1468
	Germany (AGS)	200	730	400	1460
	Germany (DFG)	200	750	400	1500
Propan-2-ol	Japan - JSOH(2024–2025)	-	-	-	-
	Permissible exposure standards for workers in the workplace	400	983	500	1228.75
	France	-	-	400	980
	Germany (AGS)	200	500	400	1000
	Germany (DFG)	200	500	400	1000
	United Kingdom	400	999	500	1250
Benzene	Japan - JSOH(2024–2025)	1(individual excess lifetime risk of cancer 10^-3)	-	-	-
	Permissible exposure standards for workers in the workplace	1	3.2	2	6.4
	European Union	0.2	0.66	-	-
	France	1	3.25	-	-
	Germany (AGS)	0.6	1.9	4.8	15.2
	Italy	1	3.25	-	-
Pentan-3-one	Permissible exposure standards for workers in the workplace	200	705	250	881.25
	France	200	705	-	-
	United Kingdom	200	716	250	895
	Austria	200	700	400	1400

	Belgium	200	715	300	1074
	Denmark	200	700	400	1400
Toluene	Japan - JSOH(2024–2025)	50	188	-	-
	Permissible exposure standards for workers in the workplace	50	188	75	235
	European Union	50	192	100	384
	France	20	76.8	100	384
	Germany (AGS)	50	190	100	380
	Germany (DFG)	50	190	100	380
N-butyl acetate	Japan - JSOH(2024–2025)	100	475	-	-
	Permissible exposure standards for workers in the workplace	150	712	187.5	890
	European Union	50	241	150	723
	France	50	241	150	723
	Germany (AGS)	62	300	124	600
	Germany (DFG)	100	480	200	960
Ethylbenzene	Japan - JSOH(2024–2025)	20	87	-	-
	Permissible exposure standards for workers in the workplace	100	434	125	542.5
	European Union	100	442	200	884
	France	20	88.4	100	442
	Germany (AGS)	20	88	40	176
	Germany (DFG)	20	88	40	176
m-xylene	Permissible exposure standards for workers in the workplace	100	434	125	542.5
	European Union	50	221	100	442
	France	50	221	100	442
	Germany (AGS)	50	220	100	440
	Germany (DFG)	50	220	100	440
	Italy	50	221	100	442
p-xylene	Permissible	100	434	125	542.5

	exposure standards for workers in the workplace				
	European Union	50	221	100	442
	France	50	221	100	442
	Germany (AGS)	50	220	100	440
	Germany (DFG)	50	220	100	440
	Italy	50	221	100	442
Heptan-2-one	Permissible exposure standards for workers in the workplace	50	233	75	291.25
	European Union	50	238	100	475
	France	50	238	100	475
	Germany (AGS)	-	238	-	476
	Italy	50	238	100	475
	United Kingdom	50	237	100	475
o-xylene	Permissible exposure standards for workers in the workplace	100	434	125	542.5
	European Union	50	221	100	442
	Germany (AGS)	50	220	100	440
	Germany (DFG)	50	220	100	440
	Italy	50	221	100	442
	United Kingdom	50	220	100	441
Cyclopentanone	Austria	25	90	50	180
2-methoxy-1-methylethyl acetate	European Union	50	275	100	550
	France	50	275	100	550
	Germany (AGS)	50	270	50	270
	Germany (DFG)	50	270	50	270
	Italy	50	275	100	550
	United Kingdom	50	274	100	548
Styrene	Japan - JSOH(2024–2025)	10	42.6	-	-
	Permissible exposure standards for workers in the workplace	50	213	75	266.25
	France	23.3	100	46.6	200
	Germany (AGS)	20	86	40	172

	Germany (DFG)	20	86	40	172
	United Kingdom	100	430	250	1080
Ethyl lactate	Denmark	10(provisional)	-	-	-
	Finland	5	25	10	49
	Sweden	5	25	10	50
Benzaldehyde	Finland	1	4.4	4	17.4
	Hungary	-	3.25	-	-
	Latvia	-	5	-	-
	Poland	-	10	-	40
	Canada - Ontario	-	-	4	17

◆ Biological limit values

Component	Standard	Biological monitoring index	Biological limits value	Sampling time	Remark
Methanol	USA -ACGIH	Methanol(Urine)	15mg/L	End of shift	
N-hexane	USA -ACGIH	2,5-Hexanedione, without hydrolysis(Urine)	0.5mg/L	End of shift	
Acetone	USA -ACGIH	Acetone(Urine)	25mg/L	End of shift	
Propan-2-ol	USA -ACGIH	Acetone(Urine)	40mg/L	End of shift at end of work week	
Benzene	SCOEL(EU)	benzene/blood	28 µg/L	immediately end of shift	
		phenylmercapturic acid/urine	46 µg/L creatinine	end of exposure/shift	
		S-Phenylmercapturic acid(Creatinine in urine)	25µg/g	End of shift	
		t,t-Muconic acid(Creatinine in urine)	500µg/g	End of shift	
Toluene	USA -ACGIH	o-Cresol, with hydrolysis(Creatinine in urine)	0.3mg/g	End of shift	
		Toluene(Urine)	0.03mg/L	End of shift	
		Toluene(Blood)	0.02mg/L	Prior to last shift of work week	
Ethylbenzene	USA -ACGIH	Sum of mandelic acid and phenylglyoxylic acid(Creatinine in urine)	150mg/g	End of shift	
m-xylene	USA -ACGIH	Methylhippuric acids(Creatinine in urine)	0.3g/g	End of shift	
p-xylene	USA -ACGIH	Methylhippuric acids(Creatinine in urine)	0.3g/g	End of shift	

o-xylene	USA -ACGIH	Methylhippuric acids(Creatinine in urine)	0.3g/g	End of shift	
Styrene	USA -ACGIH	Mandelic acid plus phenylglyoxylic acid(Creatinine in urine)	150mg/g	End of shift	
		Styrene(Urine)	20μg/L	End of shift	

◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 300 and GBZ/T 160 series standard Determination of toxic substances in workplace air.

◆ Derived No effect level (DNEL)

Component	Route of exposure	DNEL for Workers			
		Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Methanol	Inhalation	No data available	No data available	130 mg/m3	130 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
N-hexane	Inhalation	No data available	No data available	No data available	75 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Hexamethyldisiloxane	Inhalation	No data available	No data available	No data available	53.4 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Heptane	Inhalation	No data available	No data available	No data available	2085 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Acetone	Inhalation	No data available	No data available	No data available	1210 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Ethyl acetate	Inhalation	No data available	No data available	734 mg/m3	734 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Propan-2-ol	Inhalation	No data available	No data available	No data available	500 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Benzene	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Pentan-3-one	Inhalation	No data available	No data available	705 mg/m3	708 mg/m3

	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Dec-1-ene	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Toluene	Inhalation	No data available	No data available	192 mg/m3	192 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
N-butyl acetate	Inhalation	No data available	No data available	300 mg/m3	300 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Ethylbenzene	Inhalation	No data available	No data available	No data available	77 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
m-xylene	Inhalation	No data available	No data available	221 mg/m3	221 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
p-xylene	Inhalation	No data available	No data available	221 mg/m3	221 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Heptan-2-one	Inhalation	No data available	No data available	No data available	394.25 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
o-xylene	Inhalation	No data available	No data available	221 mg/m3	221 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Cyclopentanone	Inhalation	No data available	No data available	150 mg/m3	61 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
2-methoxy-1-methylethyl acetate	Inhalation	No data available	No data available	No data available	275 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Dodec-1-ene	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Styrene	Inhalation	No data available	No data available	100 mg/m3	100 mg/m3
	Oral	No data available	No data available	No data available	No data available

	Dermal	No data available	No data available	No data available	No data available
Ethyl lactate	Inhalation	No data available	No data available	No data available	7.053 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Anisole	Inhalation	No data available	No data available	No data available	20 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Nonan-2-one	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Benzaldehyde	Inhalation	No data available	No data available	9.8 mg/m3	9.8 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available

◆ Predicted No Effect Concentration (PNEC)

Component	A	B	C	D	E	F	G	H
Methanol	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No potential for bioaccumulation
N-hexane	No data available	No data available	No data available	No data available	No data available	No hazard identified	No data available	No potential for bioaccumulation
Hexamethyldisiloxane	2 µg/L	200 ng/L	10 mg/L	8.9 mg/kg sediment dw	890 µg/kg sediment dw	No hazard identified	83 µg/kg soil dw	5.3 mg/kg food
Heptane	No data available	No data available	No data available	No data available	No data available	No hazard identified	No data available	No potential for bioaccumulation
Acetone	10.6 mg/L	1.06 mg/L	100 mg/L	30.4 mg/kg sediment dw	3.04 mg/kg sediment dw	No hazard identified	29.5 mg/kg soil dw	No potential for bioaccumulation
Ethyl acetate	240 µg/L	24 µg/L	650 mg/L	1.15 mg/kg sediment dw	115 µg/kg sediment dw	No hazard identified	148 µg/kg soil dw	200 mg/kg food
Propan-2-ol	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No potential for bioaccumulation
Benzene	80 µg/L	8 µg/L	39 mg/L	1.36 mg/kg sediment dw	136 µg/kg sediment dw	No data available	225 µg/kg soil dw	No potential for bioaccum

								ulation
Pentan-3-one	500 µg/L	50 µg/L	6.287 g/L	2.17 mg/kg sediment dw	No data available	No data available	207 µg/kg soil dw	No data available
Dec-1-ene	1.2 µg/L	1.2 µg/L	No hazard identified	2.14 mg/kg sediment dw	2.14 mg/kg sediment dw	No hazard identified	430 µg/kg soil dw	No potential to cause toxic effects if accumulated (in higher organisms) via the food chain
Toluene	74 - 680 µg/L	7.4 - 680 µg/L	840 - 13610 µg/L	1.78 - 16.39 mg/kg sediment dw	178 - 16390 µg/kg sediment dw	No hazard identified	313 - 2890 µg/kg soil dw	No potential for bioaccumulation
N-butyl acetate	180 µg/L	18 µg/L	35.6 mg/L	981 µg/kg sediment dw	98.1 µg/kg sediment dw	No hazard identified	90.3 µg/kg soil dw	No potential for bioaccumulation
Ethylbenzene	100 µg/L	10 - 100 µg/L	9.6 mg/L	13.7 mg/kg sediment dw	1.37 mg/kg sediment dw	No hazard identified	2.68 mg/kg soil dw	20 mg/kg food
m-xylene	44 µg/L	4.4 µg/L	1.6 mg/L	2.52 mg/kg sediment dw	252 µg/kg sediment dw	No hazard identified	852 µg/kg soil dw	No potential for bioaccumulation
p-xylene	44 µg/L	4.4 µg/L	1.6 mg/L	2.52 mg/kg sediment dw	252 µg/kg sediment dw	No hazard identified	852 µg/kg soil dw	No potential for bioaccumulation
Heptan-2-one	98.2 µg/L	9.82 µg/L	12.5 mg/L	1.89 mg/kg sediment dw	189 µg/kg sediment dw	No hazard identified	321 µg/kg soil dw	No potential for bioaccumulation
o-xylene	8.8 - 250 µg/L	880 - 250000 ng/L	1.6 - 5 mg/L	500 - 14330 µg/kg sediment dw	50 - 14330 µg/kg sediment dw	No hazard identified	95 - 2410 µg/kg soil dw	No potential for bioaccumulation
Cyclopentanone	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No potential for bioaccumulation
2-methoxy-1-methylethyl acetate	635 µg/L	63.5 µg/L	100 mg/L	3.29 mg/kg sediment dw	329 µg/kg sediment dw	No hazard identified	290 µg/kg soil dw	No potential for bioaccumulation

Dodec-1-ene	1 µg/L	1 µg/L	No hazard identified	9.87 mg/kg sediment dw	9.87 mg/kg sediment dw	No hazard identified	1.97 mg/kg soil dw	No potential to cause toxic effects if accumulated (in higher organisms) via the food chain
Styrene	28 - 40 µg/L	14 - 40 µg/L	5 mg/L	418 - 614 µg/kg sediment dw	307 - 418 µg/kg sediment dw	No hazard identified	146 - 200 µg/kg soil dw	No potential for bioaccumulation
Ethyl lactate	284.312 µg/L	28.431 µg/L	100 mg/L	1.071 mg/kg sediment dw	107.116 µg/kg sediment dw	No hazard identified	67.795 µg/kg soil dw	No data available
Anisole	27 µg/L	2.7 µg/L	30 mg/L	745 µg/kg sediment dw	74.5 µg/kg sediment dw	No hazard identified	133 µg/kg soil dw	No potential for bioaccumulation
Benzaldehyde	410 ng/L	41 ng/L	7.59 mg/L	4 µg/kg sediment dw	400 ng/kg sediment dw	No hazard identified	500 ng/kg soil dw	No potential for bioaccumulation

Note 1:

A: Freshwater; B: Seawater; C: Sewage treatment plant; D: Sediment (freshwater); E: Sediment (seawater); F: Air; G: Soil; H: Secondary poisoning(Hazard for Predators).

Note 2:

The PNEC values of the remaining components not shown in the product are not available yet.

8.2 Exposure controls

8.2.1 Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Set up emergency exit and necessary risk-elimination area.

8.2.2 Personal protection equipment

General requirement	
Eye protection	Must wear appropriate safety goggles.
Hand protection	Must wear anti static chemical protective gloves.
Respiratory protection	Must wear appropriate personal dust proof gas mask.
Skin and body protection	Must wear anti static chemical protective clothing and anti static shoes.

8.2.3 Environmental exposure controls

Environmental exposure controls	No information available

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Clear, colorless liquid
Colour	Clear, colorless liquid
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	-98 (Methanol)
Initial boiling point and boiling range(°C)	65 (Methanol)
Flash point(Closed cup,°C)	9 (Methanol)
Evaporation rate	No information available
Flammability	No information available
Upper/lower explosive limits[%(v/v)]	Upper limit : 50 (Methanol); Lower limit : 6 (Methanol)
Vapor pressure	12.9 kPa (20°C,Methanol)
Vapor density(Air = 1)	1.1 (Methanol)
Relative density(Water=1)	0.79 (20°C,Methanol)
Solubility	Miscible with water (Methanol)
n-octanol/water partition coefficient	-0.74 (Methanol)
Auto-ignition temperature(°C)	440 (Methanol)
Decomposition temperature(°C)	No information available
Kinematic viscosity	0.544 mPa (25°C,Methanol)
Explosive properties	No information available
Oxidizing properties	No information available
Particle characteristics	Not applicable

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Information with regard to physical hazard classes	No information available

9.2.2 Other safety characteristics

Other safety characteristics	No information available

10 Stability and reactivity

Stability and reactivity

10.1 Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
10.2 Chemical stability	Stable under proper operation and storage conditions.
10.3 Possibility of hazardous reactions	In contact with oxidants causes severe reactions, and may cause a fire or explosion. In contact with an open flame may cause a fire or explosion. In contact with oxidants may cause a fire or an explosion. In contact with metal alkoxides

	may cause a fire. In contact with halides may cause an active reaction.
10.4 Conditions to avoid	Incompatible materials, heat, flame and spark.
10.5 Incompatible materials	Oxidants, alkali metals, alkaline earth metals and aluminum. Oxidantss and halogen. Oxidants, chloroform and bromoformMetal alkyl oxide, metal hydride, inorganic peroxide, nitrate and halogens oxyacid salts. Halides, oxidants and halogen.
10.6 Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 with amendment 2023/707

24 Mix VOCs in methanol	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Causes damage to organs(Category 1)
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	May cause genetic defects(Category 1B)

Acute toxicity

Component	LD_{50}(oral)	LD_{50}(dermal)	LC_{50}(inhalation,4h)
Acetone	5800mg/kg(Rat)	> 15800mg/kg(Rabbit)	76mg/L(Rat)
m-xylene	5000mg/kg(Rat)	12200mg/kg(Rabbit)	No information available
Heptane	No information available	No information available	103mg/L(Rat)
Hexamethyldisiloxane	No information available	12200mg/kg(Rabbit)	105.969mg/L(Rat)
Propan-2-ol	5045mg/kg(Rat)	12800mg/kg(Rabbit)	No information available
Styrene	2650mg/kg(Rat)	No information available	12mg/L(Rat)
Heptan-2-one	1670mg/kg(Rat)	10300mg/kg(Rabbit)	No information available
Methanol	5628mg/kg(Rat)	15800mg/kg(Rabbit)	83.867mg/L(Rat)
2-methoxy-1-methylethyl acetate	8532mg/kg(Rat)	> 5000mg/kg(Rabbit)	No information available
Pentan-3-one	2140mg/kg(Rat)	16300mg/kg(Rabbit)	No information available
Anisole	3700mg/kg(Rat)	No information available	No information available
Benzaldehyde	1300mg/kg(Rat)	No information available	No information available
Ethyl lactate	8200mg/kg(Rat)	> 5000mg/kg(Rabbit)	No information available
N-hexane	25000mg/kg(Rat)	No information available	169.188mg/L(Rat)
N-butyl acetate	10768mg/kg(Rat)	> 17600mg/kg(Rabbit)	No information available
Ethyl acetate	5620mg/kg(Rat)	> 18000mg/kg(Rabbit)	No information available
Benzene	930mg/kg(Rat)	> 8260mg/kg(Rabbit)	No information available

p-xylene	5000mg/kg(Rat)	No information available	19.758mg/L(Rat)
Toluene	636mg/kg(Rat)	12200mg/kg(Rabbit)	49mg/L(Rat)
Nonan-2-one	3200mg/kg(Rat)	> 5000mg/kg(Rabbit)	No information available
Ethylbenzene	3500mg/kg(Rat)	15400mg/kg(Rabbit)	No information available

Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
Methanol	Not Listed	Not Listed
N-hexane	Not Listed	Not Listed
Hexamethyldisiloxane	Not Listed	Not Listed
Heptane	Not Listed	Not Listed
Acetone	Not Listed	Not Listed
Ethyl acetate	Not Listed	Not Listed
Propan-2-ol	Category 3	Not Listed
Benzene	Category 1	Category K
Pentan-3-one	Not Listed	Not Listed
Dec-1-ene	Not Listed	Not Listed
Toluene	Category 3	Not Listed
N-butyl acetate	Not Listed	Not Listed
Ethylbenzene	Category 2B	Not Listed
m-xylene	Not Listed	Not Listed
p-xylene	Not Listed	Not Listed
Heptan-2-one	Not Listed	Not Listed
o-xylene	Not Listed	Not Listed
Cyclopentanone	Not Listed	Not Listed
2-methoxy-1-methylethyl acetate	Not Listed	Not Listed
Dodec-1-ene	Not Listed	Not Listed
Styrene	Category 2A	Category R
Ethyl lactate	Not Listed	Not Listed
Anisole	Not Listed	Not Listed
Nonan-2-one	Not Listed	Not Listed
Benzaldehyde	Not Listed	Not Listed

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Component	Endocrine disrupting properties
Methanol	No information available

N-hexane	No information available
Hexamethyldisiloxane	No information available
Heptane	No information available
Acetone	No information available
Ethyl acetate	No information available
Propan-2-ol	No information available
Benzene	No information available
Pentan-3-one	No information available
Dec-1-ene	No information available
Toluene	No information available
N-butyl acetate	No information available
Ethylbenzene	No information available
m-xylene	No information available
p-xylene	No information available
Heptan-2-one	No information available
o-xylene	No information available
Cyclopentanone	No information available
2-methoxy-1-methylethyl acetate	No information available
Dodec-1-ene	No information available
Styrene	No information available
Ethyl lactate	No information available
Anisole	No information available
Nonan-2-one	No information available
Benzaldehyde	No information available

11.2.2 Other Information

Other Information	See Section 11.1

12 Ecological information

12.1 Toxicity

Acute aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
Acetone	LC_{50} : 5540mg/L (96h)(Fish)	EC_{50} : 18500mg/L (48h)(Crustaceans)	ErC_{50} : 7200mg/L (96h)(Algae)
m-xylene	LC_{50} : 10.6mg/L (96h)(Fish)	EC_{50} : 2.4mg/L (48h)(Crustaceans)	ErC_{50} : 8.9mg/L (72h)(Algae)
Heptane	LC_{50} :375mg/L (96h)(Fish)	No information available	No information available
Hexamethyldisiloxane	LC_{50} : 0.46mg/L (96h)(Fish)	No information available	No information available

Propan-2-ol	LC_{50} : 9640mg/L (96h)(Fish)	EC_{50} : >1000mg/L (48h)(Crustaceans)	ErC_{50} : >1000mg/L (72h)(Algae)
Styrene	LC_{50} : 4.02mg/L (96h)(Fish)	EC_{50} : 4.7mg/L (48h)(Crustaceans)	ErC_{50} : 0.72mg/L (96h)(Algae)
o-xylene	LC_{50} : 16.1mg/L (96h)(Fish)	EC_{50} : 1.1mg/L (48h)(Crustaceans)	ErC_{50} : 0.80mg/L (72h)(Algae)
Heptan-2-one	LC_{50} :131mg/L (96h)(Fish)	No information available	No information available
Methanol	LC_{50} : 24000mg/L (96h)(Fish)	EC_{50} : 24500mg/L (48h)(Crustaceans)	No information available
2-methoxy-1-methylethyl acetate	LC_{50} :130mg/L (96h)(Fish)	EC_{50} : 370mg/L (48h)(Crustaceans)	ErC_{50} : >1000mg/L (72h)(Algae)
Pentan-3-one	LC_{50} : 1540mg/L (96h)(Fish)	No information available	No information available
Anisole	LC_{50} : > 1000mg/L (96h)(Fish)	EC_{50} : 27mg/L (48h)(Crustaceans)	ErC_{50} : 47mg/L (72h)(Algae)
Benzaldehyde	LC_{50} : 1.07mg/L (96h)(Fish)	No information available	ErC_{50} : 32mg/L (72h)(Algae)
Ethyl lactate	LC_{50} :320mg/L (96h)(Fish)	EC_{50} : 622mg/L (48h)(Crustaceans)	ErC_{50} : 417.339mg/L (96h)(Algae)
N-hexane	LC_{50} : 57.8mg/L (96h)(Fish)	No information available	No information available
N-butyl acetate	LC_{50} : 18mg/L (96h)(Fish)	No information available	No information available
Ethyl acetate	LC_{50} :230mg/L (96h)(Fish)	No information available	ErC_{50} : 2500mg/L (96h)(Algae)
Benzene	LC_{50} : 21.6mg/L (96h)(Fish)	EC_{50} : 10.9mg/L (48h)(Crustaceans)	ErC_{50} : 1600mg/L (96h)(Algae)
p-xylene	LC_{50} : 5.5mg/L (96h)(Fish)	EC_{50} : 6.9mg/L (48h)(Crustaceans)	ErC_{50} : 9.6mg/L (72h)(Algae)
Toluene	LC_{50} : 25mg/L (96h)(Fish)	EC_{50} : 4.1mg/L (48h)(Crustaceans)	ErC_{50} : 29mg/L (72h)(Algae)
Nonan-2-one	LC_{50} : 15.2mg/L (96h)(Fish)	EC_{50} : 235.99mg/L (48h)(Crustaceans)	ErC_{50} : 152.508mg/L (72h)(Algae)
Dodec-1-ene	LC_{50} : 2.6mg/L (96h)(Fish)	EC_{50} : 0.38mg/L (48h)(Crustaceans)	ErC_{50} : >0.097mg/L (72h)(Algae)
Ethylbenzene	LC_{50} : 4.2mg/L (96h)(Fish)	EC_{50} : 4.75mg/L (48h)(Crustaceans)	ErC_{50} : 3.6mg/L (96h)(Algae)

Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
Benzaldehyde	NOEC : 0.12mg/L(Fish)	No information available	NOEC : 2mg/L(Algae)
m-xylene	No information available	NOEC : 0.41mg/L(Crustaceans)	NOEC : 5.3mg/L(Algae)
Hexamethyldisiloxane	NOEC : 0.02mg/L(Fish)	No information available	No information available
o-xylene	No information available	NOEC : 0.63mg/L(Crustaceans)	NOEC : 0.73mg/L(Algae)
Propan-2-ol	NOEC : > 100mg/L(Fish)	NOEC : >100mg/L(Crustaceans)	NOEC : 1000mg/L(Algae)
p-xylene	No information available	NOEC : 1.3mg/L(Crustaceans)	NOEC : 4.4mg/L(Algae)

Toluene	No information available	NOEC：1.2mg/L(Crustaceans)	NOEC：9.1mg/L(Algae)
Dodec-1-ene	No information available	NOEC：0.041mg/L(Crustaceans)	NOEC：0.059mg/L(Algae)
2-methoxy-1-methylethyl acetate	No information available	NOEC：>100mg/L(Crustaceans)	NOEC：1000mg/L(Algae)

12.2 Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Methanol	Low	Low
N-hexane	Low	Low
Hexamethyldisiloxane	High	High
Heptane	Low	Low
m-xylene	High(Half-life = 360 days)	Low(Half-life = 1.08 days)
p-xylene	High(Half-life = 360 days)	Low(Half-life = 1.75 days)
o-xylene	High(Half-life = 360 days)	Low(Half-life = 1.83 days)
2-methoxy-1-methylethyl acetate	Low	Low
Dodec-1-ene	Low	Low
Nonan-2-one	Low	Low
Benzaldehyde	Low	Low

12.3 Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Methanol	Low	BCF=10
N-hexane	Medium	Log Kow=3.9
Hexamethyldisiloxane	Medium	BCF=1300
Heptane	High	Log Kow=4.66
m-xylene	Low	BCF=1.37
p-xylene	Low	BCF=2.2
o-xylene	Low	BCF=219
2-methoxy-1-methylethyl acetate	Low	Log Kow=0.56
Dodec-1-ene	High	BCF=4100
Nonan-2-one	Low	Log Kow=3.14
Benzaldehyde	Low	Log Kow=1.48

12.4 Mobility in soil

Component	log Koc	Remark
Methanol	0.000	
N-hexane	≥2.37 - ≤3.16	20 ℃， pH=7.0

Hexamethyldisiloxane	3.00	20 ℃
Heptane	≥2.59 - ≤3.16	20 ℃， pH=7.0
Propan-2-ol	0.54	20 ℃
Benzene	2.13	20 ℃
Pentan-3-one	0.87	20 ℃
Dec-1-ene	4.25	20 ℃
Toluene	2.31	20 ℃
Ethylbenzene	3.12	20 ℃
m-xylene	2.73	20 ℃
p-xylene	2.73	20 ℃
o-xylene	2.73	20 ℃
2-methoxy-1-methylethyl acetate	0.264	
Dodec-1-ene	5.04	20 ℃
Styrene	2.55	
Anisole	2.38	20 ℃
Nonan-2-one	1.95	25 ℃, MCI method
Benzaldehyde	1.05	25 ℃

12.5 Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Methanol	Not PBT/vPvB
N-hexane	Not PBT/vPvB
Hexamethyldisiloxane	Not PBT/vPvB
Heptane	Insufficient information, temporarily unable to evaluate
Acetone	Not PBT/vPvB
Ethyl acetate	Not PBT/vPvB
Propan-2-ol	Not PBT/vPvB
Benzene	Not PBT/vPvB
Pentan-3-one	Not PBT/vPvB
Dec-1-ene	Not PBT/vPvB
Toluene	Not PBT/vPvB
N-butyl acetate	Not PBT/vPvB
Ethylbenzene	Not PBT/vPvB
m-xylene	Not PBT/vPvB
p-xylene	Not PBT/vPvB
Heptan-2-one	Not PBT/vPvB
o-xylene	Not PBT/vPvB

Cyclopentanone	Not PBT/vPvB
2-methoxy-1-methylethyl acetate	Not PBT/vPvB
Dodec-1-ene	Not PBT/vPvB
Styrene	Not PBT/vPvB
Ethyl lactate	Insufficient information, temporarily unable to evaluate
Anisole	Not PBT/vPvB
Nonan-2-one	Not PBT/vPvB
Benzaldehyde	Not PBT/vPvB

12.6 Endocrine disrupting properties

Component	Endocrine disrupting properties
Methanol	No information available
N-hexane	No information available
Hexamethyldisiloxane	No information available
Heptane	No information available
Acetone	No information available
Ethyl acetate	No information available
Propan-2-ol	No information available
Benzene	No information available
Pentan-3-one	No information available
Dec-1-ene	No information available
Toluene	No information available
N-butyl acetate	No information available
Ethylbenzene	No information available
m-xylene	No information available
p-xylene	No information available
Heptan-2-one	No information available
o-xylene	No information available
Cyclopentanone	No information available
2-methoxy-1-methylethyl acetate	No information available
Dodec-1-ene	No information available
Styrene	No information available
Ethyl lactate	No information available
Anisole	No information available
Nonan-2-one	No information available
Benzaldehyde	No information available

12.7 Other adverse effects

	No information available

13 Disposal considerations

13.1 Waste treatment methods

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

Label and Mark

Transporting Label	

IMDG-CODE

14.1 UN number	1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S.
14.3 Transport hazard class	3
14.4 Packing group	Ⅱ
14.5 Environmental hazards (Yes or no)	No

IATA-DGR

14.1 UN number	1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S.
14.3 Transport hazard class	3
14.4 Packing group	Ⅱ
14.5 Environmental hazards (Yes or no)	No

UN-ADR

14.1 UN number	1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S.
14.3 Transport hazard class	3
14.4 Packing group	Ⅱ
14.5 Environmental hazards (Yes or no)	No

Special precautions for user

	Shipment of the goods vehicle exhaust pipe must be equipped with fire retardant devices, prohibit using mechanical equipment and tools of which easy to produce sparks. Transit should be anti-exposure, anti-rain, anti-high temperature. Transportation used tank (tank) cars should be grounded chain, tank can be installed to reduce the partition hole static electricity shocks. Strictly prohibited

	shipping or transportation with oxidants, acids, food and food additives etc. When bulk transport, Prohibit the use of cement or wooden boats. Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.

Maritime transport in bulk according to IMO instruments

◆Transport in bulk according to Annex II of MARPOL and the IBC code

	Not Available

◆Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

	Not Available

◆Transport in bulk in accordance with the IGC Code

	Not Available

15 Regulatory information

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

International chemical inventory

Component	A	B	C	D	E	F	G	H	I	J	K	L	M
Methanol	√	√	√	√	√	√	√	√	√	√	√	√	√
N-hexane	√	√	√	√	√	√	√	√	√	√	√	√	√
Hexamethyldisiloxane	√	√	√	√	√	√	√	√	√	√	√	√	√
Heptane	√	√	√	√	√	√	√	√	√	√	√	√	√
Acetone	√	√	√	√	√	√	√	√	√	√	√	√	√
Ethyl acetate	√	√	√	√	√	√	√	√	√	√	√	√	√
Propan-2-ol	√	√	√	√	√	√	√	√	√	√	√	√	√
Benzene	√	√	√	√	√	√	√	√	√	√	√	√	√
Pentan-3-one	√	√	√	√	√	√	√	√	√	×	√	√	√
Dec-1-ene	√	√	√	√	√	√	√	√	√	√	×	√	√
Toluene	√	√	√	√	√	√	√	√	√	√	√	√	√
N-butyl acetate	√	√	√	√	√	√	√	√	√	√	√	√	√
Ethylbenzene	√	√	√	√	√	√	√	√	√	√	√	√	√
m-xylene	√	√	√	√	√	√	√	√	√	√	√	√	√
p-xylene	√	√	√	√	√	√	√	√	√	√	√	√	√
Heptan-2-one	√	√	√	√	√	√	√	√	√	×	√	√	√
o-xylene	√	√	√	√	√	√	√	√	√	√	√	√	√
Cyclopentanone	√	√	√	√	√	√	√	√	×	√	√	√	√
2-methoxy-1-methylethyl acetate	√	√	√	√	√	√	√	√	√	√	√	√	√
Dodec-1-ene	√	√	√	√	√	√	√	√	√	√	√	√	√

Styrene	√	√	√	√	√	√	√	√	√	√	√	√	√
Ethyl lactate	√	√	√	√	√	√	√	√	√	√	√	√	√
Anisole	√	√	√	√	√	√	√	√	√	×	√	√	√
Nonan-2-one	√	√	√	√	√	√	√	√	√	×	√	√	√
Benzaldehyde	√	√	√	√	√	√	√	√	√	√	√	√	√

【A】 China Inventory of Existing Chemical Substances(IECSC)
【B】 European Inventory of Existing Commercial Chemical Substances(EC inventory)
【C】 United States Toxic Substances Control Act Inventory(TSCA)
【D】 Canadian Domestic Substances List(DSL)
【E】 New Zealand Inventory of Chemicals(NZIoC)
【F】 Philippines Inventory of Chemicals and Chemical Substances(PICCS)
【G】 Korea Existing Chemicals Inventory(KECL)
【H】 Australian. Inventory of Industrial Chemical (AIICS)
【I】 Japan Inventory of Existing & New Chemical Substances(ENCS)
【J】 Thailand Existing Chemicals Inventory(TECI)
【K】 Mexico National Inventory of Chemical Substances (INSQ)
【L】 Russia Inventory of Existing Substances (DRAFT)
【M】 Inventory of Existing Chemical Substances in Taiwan, China (TCSI)

List of Chemical Substances under International Conventions

Component	A	B	C
Methanol	×	×	×
N-hexane	×	×	×
Hexamethyldisiloxane	×	×	×
Heptane	×	×	×
Acetone	×	×	×
Ethyl acetate	×	×	×
Propan-2-ol	×	×	×
Benzene	×	×	×
Pentan-3-one	×	×	×
Dec-1-ene	×	×	×
Toluene	×	×	×
N-butyl acetate	×	×	×
Ethylbenzene	×	×	×
m-xylene	×	×	×
p-xylene	×	×	×
Heptan-2-one	×	×	×
o-xylene	×	×	×
Cyclopentanone	×	×	×
2-methoxy-1-methylethyl acetate	×	×	×
Dodec-1-ene	×	×	×
Styrene	×	×	×

Ethyl lactate	×	×	×
Anisole	×	×	×
Nonan-2-one	×	×	×
Benzaldehyde	×	×	×

【A】 The Montreal Protocol on Substances that Deplete the Ozone Layer
【B】 Stockholm Convention on Persistent Organic Pollutants (POPs)
【C】 Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade

European chemical inventory

Component	A	B	C	D	E	F	G	H	I
Methanol	×	×	√	√	√	√	×	×	×
N-hexane	×	×	×	√	√	√	×	×	×
Hexamethyldisiloxane	×	×	×	√	√	√	×	×	×
Heptane	×	×	×	√	√	×	×	×	×
Acetone	×	×	×	√	√	×	×	×	×
Ethyl acetate	×	×	×	√	√	×	×	×	×
Propan-2-ol	×	×	×	√	√	×	×	×	×
Benzene	×	×	√	√	√	×	√	×	×
Pentan-3-one	×	×	×	√	√	×	×	×	×
Dec-1-ene	×	×	×	√	√	×	×	×	×
Toluene	×	×	√	√	√	√	×	×	×
N-butyl acetate	×	×	×	√	√	×	×	×	×
Ethylbenzene	×	×	×	√	√	×	×	×	×
m-xylene	×	×	×	√	√	√	×	×	×
p-xylene	×	×	×	√	√	√	×	×	×
Heptan-2-one	×	×	×	√	√	×	×	×	×
o-xylene	×	×	×	√	√	√	×	×	×
Cyclopentanone	×	×	×	√	√	×	×	×	×
2-methoxy-1-methylethyl acetate	×	×	×	√	√	×	×	×	×
Dodec-1-ene	×	×	×	√	√	×	×	×	×
Styrene	×	×	×	√	√	×	×	×	×
Ethyl lactate	×	×	×	√	√	×	×	×	×
Anisole	×	×	×	√	√	×	×	×	×
Nonan-2-one	×	×	×	√	√	×	×	×	×
Benzaldehyde	×	×	×	√	√	√	×	×	×

[A] Candidate list of Substances of Very High Concern for authorization under EU REACH regulation
[B] Substances requiring authorisation under EU REACH regulation
[C] Substances restricted under EU REACH
[D] Pre-registered substances under EU REACH
[E] Registered substances under EU REACH

[F] Substance Evaluation – CoRAP under EU REACH
[G] List of priority substances under EU water policy （Directive 2455/2001/EC）
[H] Substances subject to POPs Regulation
[I] Substances proposed as POPs

Note:
"√" Indicates that the substance included in the regulations.
"×" No data or not included in the regulations.

German water hazard class(WGK)

Component	WGK	Remark
Methanol	WGK 2	
N-hexane	WGK 3	
Hexamethyldisiloxane	WGK 2	
Heptane	WGK 2	
Acetone	WGK 1	
Ethyl acetate	WGK 1	
Propan-2-ol	WGK 1	
Benzene	WGK 3	
Pentan-3-one	WGK 1	
Dec-1-ene	WGK 3	
Toluene	WGK 3	
N-butyl acetate	WGK 1	
Ethylbenzene	WGK 1	
m-xylene	WGK 2	
p-xylene	WGK 2	
Heptan-2-one	WGK 1	
o-xylene	WGK 2	
Cyclopentanone	WGK 1	
2-methoxy-1-methylethyl acetate	WGK 1	
Styrene	WGK 2	
Ethyl lactate	WGK 1	
Anisole	WGK 2	
Nonan-2-one	WGK 1	
Benzaldehyde	WGK 3	

【WGK 1】 slightly hazardous to water
【WGK 2】 obviously hazardous to water
【WGK 3】 highly hazardous to water
【nwg】 non-hazardous to water
【awg】 hazardous to water in general

German technical instructions on air quality control(TA LUFT)

Component	TA LUFT	Remark

Methanol	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the exhaust gas:Mass flow:0,10 kg/hr or Mass conc.:20 mg/m³	
N-hexane	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the exhaust gas:Mass flow:0,10 kg/hr or Mass conc.:20 mg/m³	
Hexamethyldisiloxane	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Heptane	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Acetone	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Ethyl acetate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Propan-2-ol	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Benzene	Chapter 5.2.7.1.1 Carcinogenic substances. Class II. As minimum	

	requirement, the following values are in all not allowed to be exceeded in the exhaust gas:Mass flow:1,5 g/hr or Mass conc.:0,5 mg/m³	
Pentan-3-one	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Dec-1-ene	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Toluene	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the exhaust gas:Mass flow:0,10 kg/hr or Mass conc.:20 mg/m³	
N-butyl acetate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Ethylbenzene	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
m-xylene	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
p-xylene	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all	

	not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Heptan-2-one	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
o-xylene	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Cyclopentanone	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
2-methoxy-1-methylethyl acetate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Dodec-1-ene	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Styrene	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the exhaust gas:Mass flow:0,10 kg/hr or Mass conc.:20 mg/m³	

Ethyl lactate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Anisole	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Nonan-2-one	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Benzaldehyde	Chapter 5.2.7.1.3 Substances toxic to reproductionMass flow: 2,5 g/hr or Mass conc.: 1 mg/m³	

German technical rules for hazardous substances(TRGS)

Component	TRGS	Remark
Methanol	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
N-hexane	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Hexamethyldisiloxane	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Heptane	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Acetone	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS	

	401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Ethyl acetate	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Propan-2-ol	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724|TRGS 906	
Benzene	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 410|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Pentan-3-one	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Dec-1-ene	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Toluene	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
N-butyl acetate	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Ethylbenzene	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
m-xylene	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
p-xylene	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	

Heptan-2-one	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
o-xylene	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Cyclopentanone	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
2-methoxy-1-methylethyl acetate	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Dodec-1-ene	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Styrene	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Ethyl lactate	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Anisole	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Nonan-2-one	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Benzaldehyde	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800	

15.2 Chemical safety assessment

	No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16 Other information

Information on revision

Creation Date	2025/12/22
Revision Date	-

Reason for revision	-

Reference

[1] IPCS: The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home.
[2] IARC, website: http://www.iarc.fr/.
[3] OECD: The Global Portal to Information on Chemical Substances, website: https://www.echemportal.org/echemportal/.
[4] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple.
[5] NLM: ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp.
[6] EPA: Integrated Risk Information System, website: http://cfpub.epa.gov/iris/.
[7] U.S. Department of Transportation: ERG, website: http://www.phmsa.dot.gov/hazmat/library/erg.
[8] Germany GESTIS-database on hazard substance, website: http://gestis-en.itrust.de/.

Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC_{50}	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD_{50}	Lethal Dose 50%	NTP	National Toxicology Program
EC_{50}	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC_X	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P_{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor		

Disclaimer

This Safety Data Sheet (SDS) was prepared according to REACH Regulation The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.