

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 05/08/2015

Revision date:

Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : 8270 Matrix Spike Mix
Product code : AL0-101492
Product group : Trade product

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

1.2.1. Relevant identified uses

Main use category : Laboratory Use
Industrial/Professional use spec : Industrial
For professional use only
Use of the substance/mixture : Certified reference material for laboratory use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Phenova
6390 Joyce Dr. Suite 100
80403 Golden, CO - United States
T 1-866-942-2978 - F 1-866-283-0269
info@phenova.com - www.phenova.com

1.4. Emergency telephone number

Emergency number : ChemTel Assistance (US/Canada) 1-800-255-3924
ChemTel Assistance (International) +1 813-248-0585

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flam. Liq. 2	H225
Acute Tox. 3 (Oral)	H301
Acute Tox. 3 (Dermal)	H311
Acute Tox. 4 (Inhalation)	H332
Muta. 1B	H340
Carc. 1A	H350
STOT SE 1	H370
STOT RE 2	H373
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Carc.Cat.1; R45
Muta.Cat.2; R46
F; R11
E; R2
T; R23/24/25
T; R39/23/24/25
Xn; R48/20/21/22
N; R50/53
R44

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS02



GHS06



GHS08



GHS09

Signal word (CLP) :

Danger

Hazardous ingredients :

benzene; methanol

Hazard statements (CLP) :

H225 - Highly flammable liquid and vapour
H301+H311 - Toxic if swallowed or in contact with skin
H332 - Harmful if inhaled
H340 - May cause genetic defects
H350 - May cause cancer
H370 - Causes damage to organs
H373 - May cause damage to organs through prolonged or repeated exposure
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P260 - Do not breathe fume, gas, mist, spray, vapors.
P264 - Wash hands, forearms and face 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 eye protection, protective clothing, protective gloves.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P403+P235 - Store in a well-ventilated place. Keep cool.

EUH phrases :

EUH044 - Risk of explosion if heated under confinement

No labeling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X	79.12	Flam. Liq. 2, H225 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 STOT SE 1, H370
Methylene Chloride (Component)	(CAS-No.) 75-09-2 (EC-No.) 200-838-9 (EC Index-No.) 602-004-00-3	17.4	Carc. 2, H351
benzene	(CAS-No.) 71-43-2 (EC-No.) 200-753-7 (EC Index-No.) 601-020-00-8	2	Flam. Liq. 2, H225 Carc. 1A, H350 Muta. 1B, H340 STOT RE 1, H372 Asp. Tox. 1, H304 Eye Irrit. 2, H319 Skin Irrit. 2, H315
anthracene (Component) substance listed as REACH Candidate	(CAS-No.) 120-12-7 (EC-No.) 204-371-1	0.02	Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
benzo[a]anthracene (Component) substance listed as REACH Candidate (Benz[a]anthracene)	(CAS-No.) 56-55-3 (EC-No.) 200-280-6 (EC Index-No.) 601-033-00-9	0.02	Carc. 1B, H350 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
benzo[a]pyrene (Component) substance listed as REACH Candidate (Benzo[def]chrysene)	(CAS-No.) 50-32-8 (EC-No.) 200-028-5 (EC Index-No.) 601-032-00-3	0.02	Carc. 1B, H350 Muta. 1B, H340 Repr. 1B, H360FD Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
benzo(ghi)perylene (Component) substance listed as REACH Candidate (Benzo[ghi]perylene)	(CAS-No.) 191-24-2 (EC-No.) 205-883-8	0.02	Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410
benzo[k]fluoranthene (Component)	(CAS-No.) 207-08-9 (EC-No.) 205-916-6 (EC Index-No.) 601-036-00-5	0.02	Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,2-dichlorobenzene (Component) substance with a Community workplace exposure limit	(CAS-No.) 95-50-1 (EC-No.) 202-425-9 (EC Index-No.) 602-034-00-7	0.02	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,4-dichlorobenzene (Component) substance with a Community workplace exposure limit	(CAS-No.) 106-46-7 (EC-No.) 203-400-5 (EC Index-No.) 602-035-00-2	0.02	Carc. 2, H351 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
chrysene (Component) substance listed as REACH Candidate	(CAS-No.) 218-01-9 (EC-No.) 205-923-4 (EC Index-No.) 601-048-00-0	0.02	Carc. 1B, H350 Muta. 2, H341 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
dibenz(a,h)anthracene (Component)	(CAS-No.) 53-70-3 (EC-No.) 200-181-8 (EC Index-No.) 601-041-00-2	0.02	Carc. 1B, H350 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
1,2,4-trichlorobenzene (Component) substance with a Community workplace exposure limit	(CAS-No.) 120-82-1 (EC-No.) 204-428-0 (EC Index-No.) 602-087-00-6	0.02	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
naphthalene (Component) substance with a Community workplace exposure limit	(CAS-No.) 91-20-3 (EC-No.) 202-049-5 (EC Index-No.) 601-052-00-2	0.02	Carc. 2, H351 Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
nitrobenzene (Component) substance listed as REACH Candidate substance with a Community workplace exposure limit	(CAS-No.) 98-95-3 (EC-No.) 202-716-0 (EC Index-No.) 609-003-00-7	0.02	Carc. 2, H351 Repr. 1B, H360F Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 STOT RE 1, H372 Aquatic Chronic 3, H412
pyridine (Component) substance with a Community workplace exposure limit	(CAS-No.) 110-86-1 (EC-No.) 203-809-9 (EC Index-No.) 613-002-00-7	0.02	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Oral), H302
phenol (Component) substance with a Community workplace exposure limit	(CAS-No.) 108-95-2 (EC-No.) 203-632-7 (EC Index-No.) 604-001-00-2	0.02	Muta. 2, H341 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 STOT RE 2, H373 Skin Corr. 1B, H314
pyrene (Component)	(CAS-No.) 129-00-0 (EC-No.) 204-927-3	0.02	Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
fluoranthene (Component)	(CAS-No.) 206-44-0 (EC-No.) 205-912-4	0.02	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
Hexachlorocyclopentadiene (Component)	(CAS-No.) 77-47-4 (EC-No.) 201-029-3 (EC Index-No.) 602-078-00-7	0.02	Acute Tox. 2 (Inhalation), H330 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,3,4,6-tetrachlorophenol (Component)	(CAS-No.) 58-90-2 (EC-No.) 200-402-8 (EC Index-No.) 604-013-00-8	0.02	Acute Tox. 3 (Oral), H301 Eye Irrit. 2, H319 Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
N-Nitrosodimethylamine (Component)	(CAS-No.) 62-75-9 (EC-No.) 200-549-8 (EC Index-No.) 612-077-00-3	0.02	Carc. 1B, H350 Acute Tox. 2 (Inhalation), H330 Acute Tox. 3 (Oral), H301 STOT RE 1, H372 Aquatic Chronic 2, H411
2-Methylphenol (Component) substance with a Community workplace exposure limit	(CAS-No.) 95-48-7 (EC-No.) 202-423-8 (EC Index-No.) 604-004-00-9	0.02	Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314
N-Nirosodi-n-propylamine (Component)	(CAS-No.) 621-64-7 (EC-No.) 210-698-0 (EC Index-No.) 612-098-00-8	0.02	Carc. 1B, H350 Acute Tox. 4 (Oral), H302 Aquatic Chronic 2, H411
3-Methylphenol (Component) substance with a Community workplace exposure limit	(CAS-No.) 108-39-4 (EC-No.) 203-577-9 (EC Index-No.) 604-004-00-9	0.01	Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4-Methylphenol (Component) substance with a Community workplace exposure limit	(CAS-No.) 106-44-5 (EC-No.) 203-398-6 (EC Index-No.) 604-004-00-9	0.01	Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314

Name	Product identifier	Specific concentration limits
methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X	(3 =<C < 10) STOT SE 2, H371 (C >= 10) STOT SE 1, H370
benzo[a]pyrene (Component)	(CAS-No.) 50-32-8 (EC-No.) 200-028-5 (EC Index-No.) 601-032-00-3	(C >= 0.01) Carc. 1B, H350
dibenz(a,h)anthracene (Component)	(CAS-No.) 53-70-3 (EC-No.) 200-181-8 (EC Index-No.) 601-041-00-2	(C >= 0.01) Carc. 1B, H350
phenol (Component)	(CAS-No.) 108-95-2 (EC-No.) 203-632-7 (EC Index-No.) 604-001-00-2	(1 =<C < 3) Eye Irrit. 2, H319 (1 =<C < 3) Skin Irrit. 2, H315 (C >= 3) Skin Corr. 1B, H314
2,3,4,6-tetrachlorophenol (Component)	(CAS-No.) 58-90-2 (EC-No.) 200-402-8 (EC Index-No.) 604-013-00-8	(C >= 5) Skin Irrit. 2, H315 (C >= 5) Eye Irrit. 2, H319
N-Nitrosodimethylamine (Component)	(CAS-No.) 62-75-9 (EC-No.) 200-549-8 (EC Index-No.) 612-077-00-3	(C >= 0.001) Carc. 1B, H350
N-Nirosodi-n-propylamine (Component)	(CAS-No.) 621-64-7 (EC-No.) 210-698-0 (EC Index-No.) 612-098-00-8	(C >= 0.001) Carc. 1B, H350

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Immediately call a poison center or doctor/physician. Wash with plenty of soap and water. Wash contaminated clothing before reuse. Gently wash with plenty of soap and water.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: May cause cancer by inhalation.
Symptoms/effects after skin contact	: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Highly flammable liquid and vapour.
Explosion hazard	: May form flammable/explosive vapor-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Risk of explosion if heated under confinement.

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. DO NOT fight fire when fire reaches explosives. Evacuate area.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapors/spray.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Hazardous waste due to potential risk of explosion.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Keep away from sources of ignition - No smoking.

Hygiene measures : Do not eat, drink or smoke when using this product. Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.

Storage conditions : Keep in fireproof place. Keep container tightly closed. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

benzo[a]pyrene (50-32-8)		
Netherlands	Grenswaarde TGG 8H (mg/m ³)	550 (Benzo(a)pyrene; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
1,2-dichlorobenzene (95-50-1)		
EU	IOELV TWA (mg/m ³)	122 mg/m ³ (1,2-Dichlorobenzene; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	20 ppm (1,2-Dichlorobenzene; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV STEL (mg/m ³)	306 mg/m ³ (1,2-Dichlorobenzene; EU; Short time value; Indicative occupational exposure limit value)
EU	IOELV STEL (ppm)	50 ppm (1,2-Dichlorobenzene; EU; Short time value; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	122 mg/m ³ (1,2-Dichlorobenzène; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	20 ppm (1,2-Dichlorobenzène; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m ³)	306 mg/m ³ (1,2-Dichlorobenzène; Belgium; Short time value)
Belgium	Short time value (ppm)	50 ppm (1,2-Dichlorobenzène; Belgium; Short time value)

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

1,2-dichlorobenzene (95-50-1)		
France	VLE (mg/m ³)	306 mg/m ³ (1,2-Dichlorobenzène; France; Short time value; VRC: Valeur réglementaire contraignante)
France	VLE (ppm)	50 ppm (1,2-Dichlorobenzène; France; Short time value; VRC: Valeur réglementaire contraignante)
France	VME (mg/m ³)	122 mg/m ³ (1,2-Dichlorobenzène; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	20 ppm (1,2-Dichlorobenzène; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
Italy - Portugal - USA ACGIH	Local name	o-Dichlorobenzene
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	25 ppm (o-Dichlorobenzene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	50 ppm (o-Dichlorobenzene; USA; Short time value; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	URT & eye irr; liver dam
USA OSHA	Local name	o-Dichlorobenzene
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	300 mg/m ³
USA OSHA	OSHA PEL (Ceiling) (ppm)	50 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	122 mg/m ³ (1,2-Dichloorbenzeen; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	20 ppm (1,2-Dichloorbenzeen; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	300 mg/m ³ (1,2-Dichloorbenzeen; Netherlands; Short time value; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (ppm)	49 ppm (1,2-Dichloorbenzeen; Netherlands; Short time value; Public occupational exposure limit value)
United Kingdom	WEL TWA (mg/m ³)	153 mg/m ³ 1,2-dichlorobenzene (ortho-dichlorobenzene); United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	25 ppm 1,2-dichlorobenzene (ortho-dichlorobenzene); United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m ³)	306 mg/m ³ 1,2-dichlorobenzene (ortho-dichlorobenzene); United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	50 ppm 1,2-dichlorobenzene (ortho-dichlorobenzene); United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
1,4-dichlorobenzene (106-46-7)		
EU	IOELV TWA (mg/m ³)	122 mg/m ³ (1,4-Dichlorobenzene; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	20 ppm (1,4-Dichlorobenzene; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV STEL (mg/m ³)	306 mg/m ³ (1,4-Dichlorobenzene; EU; Short time value; Indicative occupational exposure limit value)
EU	IOELV STEL (ppm)	50 ppm (1,4-Dichlorobenzene; EU; Short time value; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	61 mg/m ³ (1,4-Dichlorobenzène; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	10 ppm (1,4-Dichlorobenzène; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m ³)	306 mg/m ³ (1,4-Dichlorobenzène; Belgium; Short time value)
Belgium	Short time value (ppm)	50 ppm (1,4-Dichlorobenzène; Belgium; Short time value)
France	VLE (mg/m ³)	306 mg/m ³ (1,4-Dichlorobenzène; France; Short time value; VRI: Valeur réglementaire indicative)
France	VLE (ppm)	50 ppm (1,4-Dichlorobenzène; France; Short time value; VRI: Valeur réglementaire indicative)

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

1,4-dichlorobenzene (106-46-7)		
France	VME (mg/m ³)	4.5 mg/m ³ (1,4-Dichlorobenzène; France; Time-weighted average exposure limit 8 h; VRI: Valeur réglementaire indicative)
France	VME (ppm)	0.75 ppm (1,4-Dichlorobenzène; France; Time-weighted average exposure limit 8 h; VRI: Valeur réglementaire indicative)
Italy - Portugal - USA ACGIH	Local name	p-Dichlorobenzene
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	10 ppm (p-Dichlorobenzene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Eye irr; kidney dam
USA OSHA	Local name	p-Dichlorobenzene
USA OSHA	OSHA PEL (TWA) (mg/m ³)	450 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	75 ppm
USA OSHA	OSHA PEL (STEL) (mg/m ³)	675 mg/m ³
USA OSHA	OSHA PEL (STEL) (ppm)	110 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	150 mg/m ³ (1,4-Dichloorbenzeen; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	25 ppm (1,4-Dichloorbenzeen; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	300 mg/m ³ (1,4-Dichloorbenzeen; Netherlands; Short time value; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (ppm)	49 ppm (1,4-Dichloorbenzeen; Netherlands; Short time value; Public occupational exposure limit value)
United Kingdom	WEL TWA (mg/m ³)	153 mg/m ³ 1,4-Dichlorobenzene (para-dichlorobenzene); United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	25 ppm 1,4-Dichlorobenzene (para-dichlorobenzene); United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m ³)	306 mg/m ³ 1,4-Dichlorobenzene (para-dichlorobenzene); United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	50 ppm 1,4-Dichlorobenzene (para-dichlorobenzene); United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
Hexachlorocyclopentadiene (77-47-4)		
Belgium	Limit value (mg/m ³)	0.11 mg/m ³ (Hexachlorocyclopentadiène; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	0.01 ppm (Hexachlorocyclopentadiène; Belgium; Time-weighted average exposure limit 8 h)
France	VME (mg/m ³)	0.1 mg/m ³ (Hexachlorocyclopentadiène; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
France	VME (ppm)	0.01 ppm (Hexachlorocyclopentadiène; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
Italy - Portugal - USA ACGIH	Local name	Hexachlorocyclopentadiene
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	0.01 ppm (Hexachlorocyclopentadiene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	URT irr
2-Methylphenol (95-48-7)		
EU	IOELV TWA (mg/m ³)	22 mg/m ³ (Cresols (all isomers); EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	5 ppm (Cresols (all isomers); EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	22 mg/m ³ (Crésols (tous isomères); Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	5 ppm (Crésols (tous isomères); Belgium; Time-weighted average exposure limit 8 h)

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

2-Methylphenol (95-48-7)		
France	VME (mg/m ³)	22 mg/m ³ (Crésols (tous isomères); France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
France	VME (ppm)	5 ppm (Crésols (tous isomères); France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	20 mg/m ³ (Cresol, all isomers; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Inhalable fraction and vapor)
Netherlands	Grenswaarde TGG 8H (mg/m ³)	22 mg/m ³ (Kresol (alle isomeren); Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
3-Methylphenol (108-39-4)		
EU	IOELV TWA (mg/m ³)	22 mg/m ³ (Cresols (all isomers); EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	5 ppm (Cresols (all isomers); EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	22 mg/m ³ (Crésols (tous isomères); Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	5 ppm (Crésols (tous isomères); Belgium; Time-weighted average exposure limit 8 h)
France	VME (mg/m ³)	22 mg/m ³ (Crésols (tous isomères); France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
France	VME (ppm)	5 ppm (Crésols (tous isomères); France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	20 mg/m ³ (Cresol, all isomers; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Inhalable fraction and vapor)
Netherlands	Grenswaarde TGG 8H (mg/m ³)	22 mg/m ³ (Kresol (alle isomeren); Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
4-Methylphenol (106-44-5)		
EU	IOELV TWA (mg/m ³)	22 mg/m ³ (Cresols (all isomers); EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	5 ppm (Cresols (all isomers); EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	22 mg/m ³ (Crésols (tous isomères); Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	5 ppm (Crésols (tous isomères); Belgium; Time-weighted average exposure limit 8 h)
France	VME (mg/m ³)	22 mg/m ³ (Crésols (tous isomères); France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
France	VME (ppm)	5 ppm (Crésols (tous isomères); France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	20 mg/m ³ (Cresol, all isomers; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Inhalable fraction and vapor)
Netherlands	Grenswaarde TGG 8H (mg/m ³)	22 mg/m ³ (Kresol (alle isomeren); Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
naphthalene (91-20-3)		
EU	IOELV TWA (mg/m ³)	50 mg/m ³ (Naphtalene; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	10 ppm (Naphtalene; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	53 mg/m ³ (Naphtalène; Belgium; Time-weighted average exposure limit 8 h)

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

naphthalene (91-20-3)		
Belgium	Limit value (ppm)	10 ppm (Naphtalène; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m ³)	80 mg/m ³ (Naphtalène; Belgium; Short time value)
Belgium	Short time value (ppm)	15 ppm (Naphtalène; Belgium; Short time value)
France	VME (mg/m ³)	50 mg/m ³ (Naphtalène; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
France	VME (ppm)	10 ppm (Naphtalène; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
Italy - Portugal - USA ACGIH	Local name	Naphthalene
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	10 ppm (Naphthalene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Hematologic eff; URT & eye irr; Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure)
USA OSHA	Local name	Naphthalene
USA OSHA	OSHA PEL (TWA) (mg/m ³)	50 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	50 mg/m ³ (Naftaleen; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	9.4 ppm (Naftaleen; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	80 mg/m ³ (Naftaleen; Netherlands; Short time value; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (ppm)	15 ppm (Naftaleen; Netherlands; Short time value; Public occupational exposure limit value)
nitrobenzene (98-95-3)		
EU	IOELV TWA (mg/m ³)	1 mg/m ³ (Nitrobenzene; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	0.2 ppm (Nitrobenzene; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	1 mg/m ³ (Nitrobenzène; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	0.2 ppm (Nitrobenzène; Belgium; Time-weighted average exposure limit 8 h)
France	VME (mg/m ³)	1 mg/m ³ (Nitrobenzène; France; Time-weighted average exposure limit 8 h; VRI: Valeur réglementaire indicative)
France	VME (ppm)	0.2 ppm (Nitrobenzène; France; Time-weighted average exposure limit 8 h; VRI: Valeur réglementaire indicative)
Italy - Portugal - USA ACGIH	Local name	Nitrobenzene
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	1 ppm (Nitrobenzene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	MeHb-emia
USA OSHA	Local name	Nitrobenzene
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	1 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	1 mg/m ³ (Nitrobenzeen; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

nitrobenzene (98-95-3)		
Netherlands	Grenswaarde TGG 8H (ppm)	0.2 ppm (Nitrobenzeen; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
United Kingdom	WEL TWA (mg/m ³)	1 mg/m ³ Nitrobenzene; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	0.2 ppm Nitrobenzene; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
N-Nitrosodimethylamine (62-75-9)		
Netherlands	Grenswaarde TGG 8H (mg/m ³)	0.0002 mg/m ³ (N-Nitrosodimethylamine; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	0.000065 ppm (N-Nitrosodimethylamine; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
phenol (108-95-2)		
EU	IOELV TWA (mg/m ³)	8 mg/m ³ (Phenol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	2 ppm (Phenol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV STEL (mg/m ³)	16 mg/m ³ (Phenol; EU; Short time value; Indicative occupational exposure limit value)
EU	IOELV STEL (ppm)	4 ppm (Phenol; EU; Short time value; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	8 mg/m ³ (Phénol; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	2 ppm (Phénol; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m ³)	16 mg/m ³ (Phénol; Belgium; Short time value)
Belgium	Short time value (ppm)	4 ppm (Phénol; Belgium; Short time value)
France	VLE (mg/m ³)	15.6 mg/m ³ (Phénol; France; Short time value; VRC: Valeur réglementaire contraignante)
France	VLE (ppm)	4 ppm (Phénol; France; Short time value; VRC: Valeur réglementaire contraignante)
France	VME (mg/m ³)	7.8 mg/m ³ (Phénol; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	2 ppm (Phénol; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
Italy - Portugal - USA ACGIH	Local name	Phenol
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	5 ppm (Phenol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	URT irr; lung dam; CNS impair
USA OSHA	Local name	Phenol
USA OSHA	OSHA PEL (TWA) (mg/m ³)	19 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	5 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	8 mg/m ³ (Fenol; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	2 ppm (Fenol; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
United Kingdom	WEL TWA (mg/m ³)	7.8 mg/m ³ Phenol; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	2 ppm Phenol; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m ³)	16 mg/m ³ Phenol; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	4 ppm Phenol; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

pyridine (110-86-1)		
EU	IOELV TWA (mg/m ³)	15 mg/m ³ (Pyridine; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	5 ppm (Pyridine; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	3.3 mg/m ³ (Pyridine; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	1 ppm (Pyridine; Belgium; Time-weighted average exposure limit 8 h)
France	VLE (mg/m ³)	30 mg/m ³ (Pyridine; France; Short time value; VL: Valeur non réglementaire indicative)
France	VLE (ppm)	10 ppm (Pyridine; France; Short time value; VL: Valeur non réglementaire indicative)
France	VME (mg/m ³)	15 mg/m ³ (Pyridine; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
France	VME (ppm)	5 ppm (Pyridine; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
Italy - Portugal - USA ACGIH	Local name	Pyridine
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	1 ppm (Pyridine; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Skin irr; liver & kidney dam
USA OSHA	Local name	Pyridine
USA OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	5 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	0.9 mg/m ³ (Pyridine; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	0.27 ppm (Pyridine; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
United Kingdom	WEL TWA (mg/m ³)	16 mg/m ³ Pyridine; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	5 ppm Pyridine; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m ³)	33 mg/m ³ Pyridine; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	10 ppm Pyridine; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
1,2,4-trichlorobenzene (120-82-1)		
EU	IOELV TWA (mg/m ³)	15.1 mg/m ³ (1,2,4-Trichlorobenzene; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	2 ppm (1,2,4-Trichlorobenzene; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV STEL (mg/m ³)	37.8 mg/m ³ (1,2,4-Trichlorobenzene; EU; Short time value; Indicative occupational exposure limit value)
EU	IOELV STEL (ppm)	5 ppm (1,2,4-Trichlorobenzene; EU; Short time value; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	15.1 mg/m ³ (1,2,4-Trichlorobenzène; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	2 ppm (1,2,4-Trichlorobenzène; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m ³)	37.8 mg/m ³ (1,2,4-Trichlorobenzène; Belgium; Short time value)
Belgium	Short time value (ppm)	5 ppm (1,2,4-Trichlorobenzène; Belgium; Short time value)
France	VLE (mg/m ³)	37.8 mg/m ³ (1,2,4-Trichlorobenzène; France; Short time value; VRC: Valeur réglementaire contraignante)
France	VLE (ppm)	5 ppm (1,2,4-Trichlorobenzène; France; Short time value; VRC: Valeur réglementaire contraignante)

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

1,2,4-trichlorobenzene (120-82-1)		
France	VME (mg/m ³)	15.1 mg/m ³ (1,2,4-Trichlorobenzène; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	2 ppm (1,2,4-Trichlorobenzène; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
Italy - Portugal - USA ACGIH	Local name	1,2,4-Trichlorobenzene
Italy - Portugal - USA ACGIH	ACGIH Ceiling (ppm)	5 ppm (1,2,4-Trichlorobenzene; USA; Momentary value; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Eye & URT irr
Netherlands	Grenswaarde TGG 8H (mg/m ³)	7.55 mg/m ³ (1,2,4-Trichlorobenzene; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	1 ppm (1,2,4-Trichlorobenzene; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	37.8 mg/m ³ (1,2,4-Trichlorobenzene; Netherlands; Short time value; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (ppm)	5 ppm (1,2,4-Trichlorobenzene; Netherlands; Short time value; Public occupational exposure limit value)
United Kingdom	WEL TWA (ppm)	1 ppm 1,2,4-Trichlorobenzene; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	5 ppm 1,2,4-Trichlorobenzene; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
Methylene Chloride (75-09-2)		
Belgium	Limit value (mg/m ³)	177 mg/m ³ (Chlorure de méthylène; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	50 ppm (Chlorure de méthylène; Belgium; Time-weighted average exposure limit 8 h)
France	VLE (mg/m ³)	356 mg/m ³ (Dichlorométhane; France; Short time value; VRC: Valeur réglementaire contraignante)
France	VLE (ppm)	100 ppm (Dichlorométhane; France; Short time value; VRC: Valeur réglementaire contraignante)
France	VME (mg/m ³)	178 mg/m ³ (Dichlorométhane; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	50 ppm (Dichlorométhane; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
Italy - Portugal - USA ACGIH	Local name	Dichloromethane
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	50 ppm (Dichloromethane (Methylene chloride); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	COHb-emia; CNS impair
USA OSHA	Local name	Methylene chloride
USA OSHA	Remark (OSHA)	(2) See Table Z-2.
United Kingdom	WEL TWA (mg/m ³)	350 mg/m ³ Dichloromethane; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	100 ppm Dichloromethane; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m ³)	1060 mg/m ³ Dichloromethane; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	300 ppm Dichloromethane; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
benzene (71-43-2)		
EU	IOELV TWA (mg/m ³)	3.25 mg/m ³ (Benzene; EU; Time-weighted average exposure limit 8 h; Limit value for occupational exposure)
EU	IOELV TWA (ppm)	1 ppm (Benzene; EU; Time-weighted average exposure limit 8 h; Limit value for occupational exposure)

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

benzene (71-43-2)		
Belgium	Limit value (mg/m ³)	3.25 mg/m ³ (Benzène; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	1 ppm (Benzène; Belgium; Time-weighted average exposure limit 8 h)
France	VME (mg/m ³)	3.25 mg/m ³ (Benzène; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	1 ppm (Benzène; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
Italy - Portugal - USA ACGIH	Local name	Benzene
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	0.5 ppm (Benzene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	2.5 ppm (Benzene; USA; Short time value; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Leukemia
USA NIOSH	NIOSH REL (TWA) (ppm)	0.1 ppm
USA NIOSH	NIOSH REL (STEL) (ppm)	1 ppm
USA OSHA	Local name	Benzene
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	25 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	3.25 mg/m ³ (Benzeen; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	1 ppm (Benzeen; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
United Kingdom	WEL TWA (mg/m ³)	3.25 mg/m ³ Benzene; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	1 ppm Benzene; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
methanol (67-56-1)		
EU	IOELV TWA (mg/m ³)	260 mg/m ³ (Methanol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	200 ppm (Methanol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	266 mg/m ³ (Alcool méthylique; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	200 ppm (Alcool méthylique; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m ³)	333 mg/m ³ (Alcool méthylique; Belgium; Short time value)
Belgium	Short time value (ppm)	250 ppm (Alcool méthylique; Belgium; Short time value)
France	VLE (mg/m ³)	1300 mg/m ³ (Methanol; France; Short time value; VL: Valeur non réglementaire indicative)
France	VLE (ppm)	1000 ppm (Methanol; France; Short time value; VL: Valeur non réglementaire indicative)
France	VME (mg/m ³)	260 mg/m ³ (Methanol; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	200 ppm (Methanol; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
Italy - Portugal - USA ACGIH	Local name	Methanol
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	200 ppm (Methanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	250 ppm (Methanol; USA; Short time value; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

methanol (67-56-1)		
USA OSHA	Local name	Methyl alcohol
USA OSHA	OSHA PEL (TWA) (mg/m ³)	260 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	133 mg/m ³ (Methanol; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	100 ppm (Methanol; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
United Kingdom	WEL TWA (mg/m ³)	266 mg/m ³ Methanol; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	200 ppm Methanol; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m ³)	333 mg/m ³ Methanol; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	250 ppm Methanol; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)

8.2. Exposure controls

Appropriate engineering controls : Either local exhaust or general room ventilation is usually required.
Personal protective equipment : Avoid all unnecessary exposure. Wash hands, forearms and face thoroughly after handling. Gloves. Protective clothing. Protective goggles. Safety glasses.



Hand protection : Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration.
Eye protection : Chemical goggles or safety glasses. Safety glasses.
Skin and body protection : Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact.
Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.
Other information : Do not eat, drink or smoke during use. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Colorless.
Odor : characteristic.
pH : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : Highly flammable liquid and vapour
Relative density : No data available
Solubility : No data available
Explosive properties : Risk of explosion if heated under confinement.
Oxidizing properties : No data available
Explosion limits : No data available

9.2. Other information

No additional information available

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapor-air mixture. Risk of explosion if heated under confinement. Extreme risk of explosion by shock, friction, fire or other sources of ignition.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Heat. Sparks. Overheating.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation: Harmful if inhaled.

8270 Matrix Spike Mix	
ATE CLP (oral)	126.39 mg/kg body weight
ATE CLP (dermal)	379.171 mg/kg body weight
ATE CLP (gases)	4500 ppmV/4h
ATE CLP (vapors)	11 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h
anthracene (120-12-7)	
LD50 oral rat	> 16000 mg/kg (Rat)
1,2-dichlorobenzene (95-50-1)	
LD50 oral rat	500 mg/kg (Rat)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	9.5 mg/l/4h (Rat)
ATE CLP (oral)	500 mg/kg body weight
ATE CLP (vapors)	9.5 mg/l/4h
ATE CLP (dust, mist)	9.5 mg/l/4h
1,4-dichlorobenzene (106-46-7)	
LD50 dermal rat	> 6000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (Rat)
fluoranthene (206-44-0)	
LD50 oral rat	2000 mg/kg (Rat)
LD50 dermal rabbit	3180 mg/kg (Rabbit)
ATE CLP (oral)	2000 mg/kg body weight
ATE CLP (dermal)	3180 mg/kg body weight
Hexachlorocyclopentadiene (77-47-4)	
LD50 oral rat	315 mg/kg (Rat; Experimental value; 200 mg/kg bodyweight; Rat; Experimental value; 505 mg/kg bodyweight; Rat; Experimental value; 690 mg/kg bodyweight; Rat; Experimental value; 640 mg/kg bodyweight; Rat)
LD50 dermal rat	2000-3200,Rat; Experimental value
LD50 dermal rabbit	200 - 340 mg/kg (Rabbit; Experimental value; 430 mg/kg bodyweight; Rabbit)
LC50 inhalation rat (mg/l)	0.018 mg/l/4h (Rat; Experimental value; 0,04 mg/l/4h; Rat; Experimental value)
ATE CLP (oral)	315 mg/kg body weight
ATE CLP (dermal)	200 mg/kg body weight
ATE CLP (gases)	100 ppmV/4h
ATE CLP (vapors)	0.018 mg/l/4h
ATE CLP (dust, mist)	0.018 mg/l/4h
2-Methylphenol (95-48-7)	
LD50 oral rat	121 mg/kg (Rat)
LD50 dermal rat	620 mg/kg (Rat)

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

2-Methylphenol (95-48-7)	
LD50 dermal rabbit	890 mg/kg (Rabbit)
ATE CLP (oral)	121 mg/kg body weight
ATE CLP (dermal)	620 mg/kg body weight
3-Methylphenol (108-39-4)	
LD50 oral rat	242 mg/kg (Rat)
LD50 dermal rat	1100 mg/kg (Rat)
LD50 dermal rabbit	2050 mg/kg (Rabbit)
ATE CLP (oral)	242 mg/kg body weight
ATE CLP (dermal)	300 mg/kg body weight
4-Methylphenol (106-44-5)	
LD50 oral rat	207 mg/kg (Rat; Experimental value)
LD50 dermal rabbit	301 mg/kg (Rabbit)
ATE CLP (oral)	207 mg/kg body weight
ATE CLP (dermal)	301 mg/kg body weight
naphthalene (91-20-3)	
LD50 oral rat	> 1100 mg/kg (Rat)
LD50 dermal rat	> 2500 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)
ATE CLP (oral)	500 mg/kg body weight
nitrobenzene (98-95-3)	
LD50 oral rat	640 mg/kg (Rat; Experimental value; 588 mg/kg bodyweight; Rat)
LD50 dermal rabbit	760 mg/kg body weight (Rabbit; Experimental value)
ATE CLP (oral)	100 mg/kg body weight
ATE CLP (dermal)	760 mg/kg body weight
ATE CLP (gases)	700 ppmV/4h
ATE CLP (vapors)	3 mg/l/4h
ATE CLP (dust, mist)	0.5 mg/l/4h
N-Nitrosodimethylamine (62-75-9)	
LD50 oral rat	37 mg/kg (Rat)
LC50 inhalation rat (mg/l)	0.24 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	78 ppm/4h (Rat)
ATE CLP (oral)	37 mg/kg body weight
ATE CLP (gases)	78 ppmV/4h
ATE CLP (vapors)	0.24 mg/l/4h
ATE CLP (dust, mist)	0.24 mg/l/4h
N-Nirosodi-n-propylamine (621-64-7)	
LD50 oral rat	480 mg/kg (Rat)
ATE CLP (oral)	480 mg/kg body weight
phenol (108-95-2)	
LD50 oral rat	650 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rat	660 mg/kg (Rat; Experimental value; Equivalent or similar to OECD 402)
LD50 dermal rabbit	850 - 1400 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	0.32 mg/l/4h (Rat; Literature study)
ATE CLP (oral)	100 mg/kg body weight
ATE CLP (dermal)	660 mg/kg body weight
ATE CLP (gases)	700 ppmV/4h
ATE CLP (vapors)	0.32 mg/l/4h
ATE CLP (dust, mist)	0.32 mg/l/4h
pyrene (129-00-0)	
LD50 oral rat	2700 mg/kg (Rat)
ATE CLP (oral)	2700 mg/kg body weight
pyridine (110-86-1)	
LD50 oral rat	> 891 mg/kg (Rat)
LD50 dermal rabbit	1120 mg/kg (Rabbit)
ATE CLP (oral)	500 mg/kg body weight
ATE CLP (dermal)	1120 mg/kg body weight
ATE CLP (gases)	4500 ppmV/4h

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

pyridine (110-86-1)	
ATE CLP (vapors)	11 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h
2,3,4,6-tetrachlorophenol (58-90-2)	
LD50 oral rat	140 mg/kg (Rat)
LD50 dermal rat	485 mg/kg (Rat)
ATE CLP (oral)	140 mg/kg body weight
ATE CLP (dermal)	485 mg/kg body weight
1,2,4-trichlorobenzene (120-82-1)	
LD50 oral rat	756 mg/kg (Rat)
LD50 dermal rat	6139 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 4.1 mg/l/4h (Rat)
ATE CLP (oral)	756 mg/kg body weight
ATE CLP (dermal)	6139 mg/kg body weight
Methylene Chloride (75-09-2)	
LD50 oral rat	> 2000 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Literature study)
benzene (71-43-2)	
LD50 oral rat	> 930 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; > 2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 8240 mg/kg (Rabbit; Experimental value; 21 CFR 191.10; > 9.4; Rabbit)
LC50 inhalation rat (mg/l)	43.767 mg/l/4h (Rat; Experimental value)
LC50 inhalation rat (ppm)	13700 ppm/4h (Rat; Experimental value)
ATE CLP (gases)	13700 ppmV/4h
ATE CLP (vapors)	43.767 mg/l/4h
ATE CLP (dust, mist)	43.767 mg/l/4h
methanol (67-56-1)	
LD50 oral rat	> 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rabbit	15800 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	85 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	64000 ppm/4h (Rat; Literature study)
ATE CLP (oral)	100 mg/kg body weight
ATE CLP (dermal)	300 mg/kg body weight
ATE CLP (gases)	700 ppmV/4h
ATE CLP (vapors)	3 mg/l/4h
ATE CLP (dust, mist)	0.5 mg/l/4h

Skin corrosion/irritation	: Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitization	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: May cause genetic defects.
Carcinogenicity	: May cause cancer. May cause cancer
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity – single exposure	: Causes damage to organs.
Specific target organ toxicity – repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Harmful if swallowed. Toxic in contact with skin.

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Very toxic to aquatic life with long lasting effects.

anthracene (120-12-7)	
LC50 fish 2	0.00127 mg/l (LC50; 96 h)
EC50 Daphnia 2	0.0012 mg/l (EC50; 24 h)
benzo[a]anthracene (56-55-3)	
LC50 fish 1	0.0018 mg/l (LC50; 65 h)
EC50 Daphnia 1	0.01 mg/l (EC50; 96 h)
benzo[a]pyrene (50-32-8)	
LC50 fish 1	0.0056 mg/l (LC50; 38 h)
EC50 Daphnia 1	0.005 mg/l (LC50; 96 h)
Threshold limit algae 1	0.015 mg/l (EC50; 72 h)
benzo(ghi)perylene (191-24-2)	
EC50 Daphnia 1	0.0002 mg/l (LC50; 14 h)
benzo[k]fluoranthene (207-08-9)	
EC50 Daphnia 1	0.0048 mg/l (LC50; 23 h)
chrysene (218-01-9)	
EC50 Daphnia 1	0.0007 mg/l (LC50; 24 h)
Threshold limit algae 1	0.001 mg/l (EC0)
dibenz(a,h)anthracene (53-70-3)	
EC50 Daphnia 1	0.0004 mg/l (LC50; 3 h)
1,2-dichlorobenzene (95-50-1)	
LC50 fish 1	1.58 mg/l (LC50; 96 h)
EC50 Daphnia 2	0.74 mg/l (EC50; 48 h)
1,4-dichlorobenzene (106-46-7)	
LC50 fish 2	1.12 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 2	0.7 mg/l (EC50; 48 h)
fluoranthene (206-44-0)	
LC50 fish 1	0.0077 mg/l (LC50; 96 h)
EC50 Daphnia 1	< 0.1 mg/l (EC50; 72 h)
Threshold limit algae 1	54 mg/l (EC50; 96 h)
Hexachlorocyclopentadiene (77-47-4)	
LC50 fish 1	0.007 mg/l (LC50; 96 h; Pimephales promelas; Flow-through system; Fresh water)
EC50 other aquatic organisms 1	0.19 mg/l (96 h; Selenastrum capricornutum; Growth rate)
2-Methylphenol (95-48-7)	
EC50 other aquatic organisms 1	65 mg/l (96 h; Selenastrum capricornutum)
LC50 fish 2	7.9 - 8.4 mg/l (LC50; 96 h)
EC50 Daphnia 2	5 - 9.5 mg/l (EC50; 48 h)
3-Methylphenol (108-39-4)	
LC50 fish 1	8.9 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 1	8.9 mg/l (EC50; 24 h)
Threshold limit algae 1	15 mg/l (EC0; 192 h)
4-Methylphenol (106-44-5)	
LC50 fish 2	7.5 mg/l (LC50; 96 h)
EC50 Daphnia 2	1.4 - 21.1 mg/l (EC50; 48 h)
Threshold limit algae 2	21 mg/l (EC50; 48 h)
naphthalene (91-20-3)	
EC50 Daphnia 1	2.16 mg/l (EC50; 48 h; Daphnia magna)
LC50 fish 2	0.11 mg/l (LC50; 96 h; Oncorhynchus mykiss)
Threshold limit algae 1	0.4 mg/l (EC50; 72 h; Skeletonema costatum)
nitrobenzene (98-95-3)	
LC50 fish 1	4.3 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 48 h; Oryzias latipes)
EC50 Daphnia 1	35 mg/l (Other, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

phenol (108-95-2)	
LC50 other aquatic organisms 1	0.04 mg/l (4 days; Rana sp.; LC50)
EC50 Daphnia 2	6.6 mg/l (EC50; 48 h; Daphnia magna; Static system)
pyrene (129-00-0)	
EC50 Daphnia 1	> 0.0057 mg/l (LC50; 3.4 h)
EC50 other aquatic organisms 1	1.6 mg/l (3 h; Chlorella vulgaris)
LC50 fish 2	0.0026 mg/l (LC50; 96 h)
pyridine (110-86-1)	
LC50 fish 1	4.6 mg/l (LC50; 96 h)
EC50 Daphnia 2	495 mg/l (EC50; 48 h)
2,3,4,6-tetrachlorophenol (58-90-2)	
LC50 fish 1	0.14 mg/l (LC50; 96 h; Lepomis macrochirus)
EC50 Daphnia 1	0.01 mg/l (EC50; 48 h)
Threshold limit algae 2	1.3 mg/l (EC50; 96 h)
1,2,4-trichlorobenzene (120-82-1)	
LC50 fish 1	1.32 mg/l (LC50; 96 h)
EC50 Daphnia 1	0.86 mg/l (EC50; 48 h)
Methylene Chloride (75-09-2)	
LC50 fish 1	193 mg/l (LC50; 96 h; Pimephales promelas)
EC50 Daphnia 1	168.2 mg/l (EC50; 48 h)
benzene (71-43-2)	
LC50 fish 1	5.3 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 2	10 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna)
Threshold limit algae 1	100 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)
methanol (67-56-1)	
LC50 fish 1	15400 mg/l (LC50; EPA 660/3 - 75/009; 96 h; Lepomis macrochirus; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	> 10000 mg/l (EC50; DIN 38412-11; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
LC50 fish 2	10800 mg/l (LC50; 96 h; Salmo gairdneri)

12.2. Persistence and degradability

8270 Matrix Spike Mix	
Persistence and degradability	May cause long-term adverse effects in the environment.
anthracene (120-12-7)	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water.
ThOD	3.41 g O ₂ /g substance
BOD (% of ThOD)	0.02
benzo[a]anthracene (56-55-3)	
Persistence and degradability	Not readily biodegradable in water. Photolysis in water. Ozonation in water. Forming sediments in water. Biodegradability in soil: no data available. Inhibits biodegradation processes in the soil. Adsorbs into the soil. Photodegradation in the air.
ThOD	2.95 g O ₂ /g substance
benzo[a]pyrene (50-32-8)	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil.
Chemical oxygen demand (COD)	2.92 g O ₂ /g substance
ThOD	2.92 g O ₂ /g substance
benzo(ghi)perylene (191-24-2)	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil.
ThOD	2.9 g O ₂ /g substance
benzo[k]fluoranthene (207-08-9)	
Persistence and degradability	Not readily biodegradable in water. Ozonation in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil.
ThOD	2.92 g O ₂ /g substance

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

chrysene (218-01-9)	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil.
dibenz(a,h)anthracene (53-70-3)	
Persistence and degradability	Not readily biodegradable in water. Ozonation in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil.
1,2-dichlorobenzene (95-50-1)	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil.
BOD (% of ThOD)	0
1,4-dichlorobenzene (106-46-7)	
Persistence and degradability	Readily biodegradable in water. Non degradable in the soil. Adsorbs into the soil.
ThOD	1.52 g O ₂ /g substance
BOD (% of ThOD)	0.65 (Calculated value)
fluoranthene (206-44-0)	
Persistence and degradability	Forming sediments in water.
Hexachlorocyclopentadiene (77-47-4)	
Persistence and degradability	Not readily biodegradable in water. Photolysis in water. Biodegradable in the soil. Adsorbs into the soil. Photolysis in the air.
2-Methylphenol (95-48-7)	
Persistence and degradability	Readily biodegradable in water. Photodegradation in the air.
Biochemical oxygen demand (BOD)	1.69 - 1.74 g O ₂ /g substance
Chemical oxygen demand (COD)	2.38 g O ₂ /g substance
ThOD	2.52 g O ₂ /g substance
BOD (% of ThOD)	0.65
3-Methylphenol (108-39-4)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photodegradation in the air.
Biochemical oxygen demand (BOD)	1.7 g O ₂ /g substance
Chemical oxygen demand (COD)	2.4 g O ₂ /g substance
ThOD	2.52 g O ₂ /g substance
BOD (% of ThOD)	0.68
4-Methylphenol (106-44-5)	
Persistence and degradability	Readily biodegradable in water. Photolysis in the air.
Biochemical oxygen demand (BOD)	1.45 g O ₂ /g substance
Chemical oxygen demand (COD)	2.4 g O ₂ /g substance
ThOD	2.52 g O ₂ /g substance
BOD (% of ThOD)	0.57
naphthalene (91-20-3)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0 g O ₂ /g substance
Chemical oxygen demand (COD)	0.22 g O ₂ /g substance
ThOD	2.99 g O ₂ /g substance
nitrobenzene (98-95-3)	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	0 g O ₂ /g substance
ThOD	1.95 g O ₂ /g substance
BOD (% of ThOD)	0
N-Nitrosodimethylamine (62-75-9)	
Persistence and degradability	Not readily biodegradable in water. Photolysis in water. Photolysis in the air.
phenol (108-95-2)	
Persistence and degradability	Readily biodegradable in water. Photolysis in water. Readily biodegradable in the soil. Inhibits biodegradation processes in the soil. Low potential for adsorption in soil. Photooxidation in the air.
Biochemical oxygen demand (BOD)	1.68 g O ₂ /g substance
Chemical oxygen demand (COD)	2.28 g O ₂ /g substance
ThOD	2.38 g O ₂ /g substance
BOD (% of ThOD)	0.71

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

pyrene (129-00-0)	
Persistence and degradability	Not readily biodegradable in water. Photolysis in water. Ozonation in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil. Photodegradation in the air.
pyridine (110-86-1)	
Persistence and degradability	Readily biodegradable in water. Non degradable in the soil. Biodegradable in the soil under anaerobic conditions.
Biochemical oxygen demand (BOD)	1.15 g O ₂ /g substance
Chemical oxygen demand (COD)	0.05 g O ₂ /g substance
ThOD	2.23 g O ₂ /g substance
BOD (% of ThOD)	0.52
2,3,4,6-tetrachlorophenol (58-90-2)	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil.
1,2,4-trichlorobenzene (120-82-1)	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	0 g O ₂ /g substance
BOD (% of ThOD)	0
Methylene Chloride (75-09-2)	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil.
benzene (71-43-2)	
Persistence and degradability	Readily biodegradable in water. Ozonation in water. Forming sediments in water. Biodegradable in the soil. Low potential for adsorption in soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	2.18 g O ₂ /g substance
Chemical oxygen demand (COD)	2.15 g O ₂ /g substance
ThOD	3.1 g O ₂ /g substance
BOD (% of ThOD)	0.7
methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O ₂ /g substance
Chemical oxygen demand (COD)	1.42 g O ₂ /g substance
ThOD	1.5 g O ₂ /g substance
BOD (% of ThOD)	0.8 (Literature study)
12.3. Bioaccumulative potential	
8270 Matrix Spike Mix	
Bioaccumulative potential	Not established.
anthracene (120-12-7)	
BCF fish 1	903 - 2820 (BCF)
BCF fish 2	9200 (BCF)
BCF other aquatic organisms 1	7770 (BCF; 24 h; Chlorella sp.)
BCF other aquatic organisms 2	10500 (BCF)
Log Pow	4.5
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
benzo[a]anthracene (56-55-3)	
BCF fish 1	350 (BCF; 72 h)
BCF other aquatic organisms 1	1106 (BCF; 24 h)
BCF other aquatic organisms 2	18000 (BCF; 192 h)
Log Pow	5.61 - 5.79
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
benzo[a]pyrene (50-32-8)	
BCF fish 1	480 (BCF; 72 h)
BCF fish 2	70.7 (BCF; 168 h; Salmo salar)
BCF other aquatic organisms 1	3000 (BCF; 192 h)
BCF other aquatic organisms 2	1.5 (BCF; 24 h)
Log Pow	5.97 - 6.06
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).
benzo(ghi)perylene (191-24-2)	
Log Pow	6.51 - 7.23 (Calculated)

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

benzo(ghi)perylene (191-24-2)	
Bioaccumulative potential	Bioaccumable.
benzo[k]fluoranthene (207-08-9)	
BCF fish 1	8750 (BCF)
BCF other aquatic organisms 1	0.0013 mg/kg (BCF)
BCF other aquatic organisms 2	37000 (BCF)
Log Pow	6.84
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
chrysene (218-01-9)	
BCF other aquatic organisms 1	4440 (BCF)
Log Pow	5.81 - 5.86 (Experimental value)
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).
dibenz(a,h)anthracene (53-70-3)	
Log Pow	5.97 - 6.84
1,2-dichlorobenzene (95-50-1)	
BCF fish 1	90 - 260 (BCF)
BCF fish 2	270 - 560 (BCF)
BCF other aquatic organisms 1	14791 (BCF)
BCF other aquatic organisms 2	28840 (BCF)
Log Pow	3.43 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).
1,4-dichlorobenzene (106-46-7)	
BCF fish 1	100 (BCF)
BCF fish 2	214 - 720 (BCF)
BCF other aquatic organisms 1	20 (BCF)
Log Pow	3.39 - 3.62 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).
fluoranthene (206-44-0)	
BCF fish 1	3981 (BCF)
BCF fish 2	6110 (BCF)
BCF other aquatic organisms 1	10000 (BCF; 192 h)
BCF other aquatic organisms 2	695 (BCF; 48 h)
Log Pow	5.33
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
Hexachlorocyclopentadiene (77-47-4)	
BCF fish 1	1230 (BCF; 72 h; Leuciscus idus)
BCF other aquatic organisms 1	1090 (BCF; 24 h; Chlorella sp.)
Log Pow	3.99-5.51
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).
2-Methylphenol (95-48-7)	
Log Pow	1.5 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
3-Methylphenol (108-39-4)	
BCF fish 1	20 (BCF; 72 h)
BCF fish 2	10.7 (BCF)
BCF other aquatic organisms 1	4900 (BCF; 24 h)
Log Pow	1.96 - 2.01 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
4-Methylphenol (106-44-5)	
BCF fish 1	4 (BCF)
Log Pow	1.97 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
naphthalene (91-20-3)	
BCF fish 1	23 - 168 (BCF; 8 weeks; Cyprinus carpio)
Log Pow	3.3 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

nitrobenzene (98-95-3)	
BCF fish 1	15 (BCF; 672 h)
BCF fish 2	1.6 - 7.7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)
BCF other aquatic organisms 1	24 (BCF)
Log Pow	1.85 (Calculated; 1.86; Experimental value; EU Method A.8: Partition Coefficient)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
N-Nitrosodimethylamine (62-75-9)	
Log Pow	-0.77 - -0.57
Bioaccumulative potential	Bioaccumulation: not applicable.
N-Nirosodi-n-propylamine (621-64-7)	
Log Pow	1.31 - 1.36
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
phenol (108-95-2)	
Log Pow	1.47 (Experimental value; Equivalent or similar to OECD 117; 30 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
pyrene (129-00-0)	
BCF fish 1	600 - 970 (BCF)
BCF fish 2	4810 (BCF)
BCF other aquatic organisms 1	2692 (BCF)
Log Pow	4.88 - 5.32
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).
pyridine (110-86-1)	
Log Pow	0.65 - 1.04 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
2,3,4,6-tetrachlorophenol (58-90-2)	
BCF fish 1	200 (BCF; 24 h)
BCF fish 2	93 (BCF; 24 h)
Log Pow	4.1 - 4.8
Bioaccumulative potential	Potential for bioaccumulation ($4 \geq \text{Log Kow} \leq 5$).
1,2,4-trichlorobenzene (120-82-1)	
BCF fish 1	1200 - 3700 (BCF)
BCF fish 2	1140 - 4420 (BCF)
BCF other aquatic organisms 1	250 (BCF; 24 h; Chlorella sp.)
BCF other aquatic organisms 2	142 (BCF)
Log Pow	4.02 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation ($500 \leq \text{BCF} \leq 5000$).
Methylene Chloride (75-09-2)	
BCF fish 1	2 - 40 (BCF)
Log Pow	1.25 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
benzene (71-43-2)	
BCF fish 1	19 (BCF)
BCF fish 2	< 10 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 3 days; Leuciscus idus; Flow-through system; Fresh water; Experimental value)
BCF other aquatic organisms 1	30 (BCF; 24 h; Chlorella sp.)
Log Pow	2.13 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
methanol (67-56-1)	
BCF fish 1	< 10 (BCF; 72 h; Leuciscus idus)
Log Pow	-0.77 (Experimental value; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
12.4. Mobility in soil	
1,2-dichlorobenzene (95-50-1)	
Surface tension	0.037 N/m (20 °C)
1,4-dichlorobenzene (106-46-7)	
Surface tension	0.03 N/m (55 °C)

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Hexachlorocyclopentadiene (77-47-4)	
Surface tension	0.0375 N/m (20 °C)
Log Koc	Koc,4265; Experimental value
2-Methylphenol (95-48-7)	
Surface tension	0.04 N/m (20 °C)
3-Methylphenol (108-39-4)	
Surface tension	0.04 N/m (20 °C)
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
4-Methylphenol (106-44-5)	
Surface tension	0.041 N/m (40 °C)
naphthalene (91-20-3)	
Surface tension	0.03 N/m (100 °C)
nitrobenzene (98-95-3)	
Surface tension	0.0439 N/m
Log Koc	Koc,Other; 118; Calculated value; log Koc; Other; 2.07; Calculated value
Ecology - soil	Low potential for adsorption in soil.
phenol (108-95-2)	
Surface tension	0.0713 N/m (20 °C)
pyridine (110-86-1)	
Surface tension	0.038 N/m (20 °C)
1,2,4-trichlorobenzene (120-82-1)	
Surface tension	0.039 N/m (20 °C)
Methylene Chloride (75-09-2)	
Surface tension	0.028 N/m (20 °C)
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
benzene (71-43-2)	
Surface tension	0.029 N/m (20 °C)
Log Koc	Koc,134.1; QSAR
methanol (67-56-1)	
Surface tension	0.023 N/m (20 °C)
Log Koc	Koc,PCKOCWIN v1.66; 1; Calculated value

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Additional information : Handle empty containers with care because residual vapors are flammable. Hazardous waste due to potential risk of explosion.
Ecology - waste materials : Hazardous waste due to toxicity. Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1992
UN-No. (IATA) : 1992

14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE LIQUID, TOXIC, N.O.S.
Proper Shipping Name (IATA) : FLAMMABLE LIQUID, TOXIC, N.O.S.
Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, TOXIC, N.O.S.
Proper Shipping Name (ADN) : FLAMMABLE LIQUID, TOXIC, N.O.S.
Transport document description (ADR) : UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II, (D/E), ENVIRONMENTALLY HAZARDOUS

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

14.3. Packing group

Class (ADR) : 3
Classification code (ADR) : FT1
Class (IATA) : 3
Class (IMDG) : 6.1
Class (ADN) : 6.1
Subsidiary risks (ADR) : 6.1
Hazard labels (ADR) : 3, 6.1



Hazard labels (IATA) : 3, 6.1



14.4. Packing group

Packing group (ADR) : II
Packing group (IATA) : II

14.5. Environmental hazards

Dangerous for the environment :

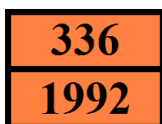


Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 336
Classification code (ADR) : FT1
Orange plates :



Special provision (ADR) : 274
Transport category (ADR) : 2
Tunnel restriction code (ADR) : D/E
Limited quantities (ADR) : 11
Excepted quantities (ADR) : E2
EAC : •3WE
APP : A(fl)

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

CAO packing instructions (IATA) : 364
CAO max net quantity (IATA) : 60L
PCA packing instructions (IATA) : 352
PCA Limited quantities (IATA) : Y341
PCA limited quantity max net quantity (IATA) : 1L
PCA max net quantity (IATA) : 1L
PCA Excepted quantities (IATA) : E2
ERG code (IATA) : 3HP

14.6.4. Inland waterway transport

Carriage prohibited (ADN) : No

8270 Matrix Spike Mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains substance on the candidate list in concentration $\geq 0.1\%$ or with a lower specific limit: Benzo[def]chrysene (EC 200-028-5, CAS 50-32-8)

Contains no REACH Annex XIV substances \geq to the Annex XIV limit value

15.1.2. National regulations

Germany

Water hazard class (WGK) : 3 - strongly hazardous to water

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

PHV SDS EU

Copyright 2015 Phenova, Inc. License granted to make paper copies for internal use. The information contained in this Safety Data Sheet is based on our current knowledge. The information contained in this document should be used only as a guide for appropriate safety precautions and should not be considered to be all inclusive. Users should make their own investigation to determine the suitability of the information for their particular purposes. The document does not represent any guarantee of the properties of the product. Phenova, Inc. shall not be held liable for any damage resulting from the handling or use of this product. Visit the Terms and Conditions of Sale link at www.phenova.com for additional terms and conditions of sale.