

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Reference number: 100001003 Issue date: 13/06/2014 Revision date: 11/01/2024 Supersedes version of: 25/05/2023 Version: 4.0

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

1.1. Product identifier

Product form Mixture Trade name NMC-Fix

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

1.2.1. Relevant identified uses

Intended for general public

Main use category : Professional use, Consumer use Function or use category : Adhesives, binding agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

NMC S.A. Gert-Noël-Strasse 4731 Eynatten Belgium T +32 87 85 85 00, F +32 87 85 85 11 info@nmc.eu

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	NHS 111/NHS 24/NHS Direct		111 0845 4647	or call a doctor

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 2 H225 Skin corrosion/irritation, Category 2 H315 Serious eye damage/eye irritation, Category 2 H319 Skin sensitisation, Category 1 H317 Specific target organ toxicity - Single exposure, Category 3, H336

Hazardous to the aquatic environment - Chronic Hazard, H411

Category 2

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

Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. May cause drowsiness or dizziness. Causes skin irritation. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP)







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GHS09 GHS02 GHS07 Signal word (CLP) Danger Contains hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane; butanone; cyclohexane; 4-tert-butylphenol formaldehyde resin Hazard statements (CLP) H225 - Highly flammable liquid and vapour. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness. H411 - Toxic to aquatic life with long lasting effects. Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 - Avoid breathing vapours, spray. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves, protective clothing, eye protection. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Extra phrases This product is not to be used under conditions of poor ventilation. This product is not to be used for carpet laying.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
xylene (1330-20-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Acetone (67-64-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
butanone (78-93-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
cyclohexane (110-82-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
n-hexane (110-54-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008
butanone substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 78-93-3 EC-No.: 201-159-0 EC Index-No.: 606-002-00-3 REACH-no: 01-2119457290-43	≥ 25 - < 50	[CLP] Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
Acetone substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 67-64-1 EC-No.: 200-662-2 EC Index-No.: 606-001-00-8 REACH-no: 01-2119471330-	≥ 10 – < 25	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	EC-No.: (list no: 927-510-4) REACH-no: 01-2119475515- 33	< 10	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411
hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane	EC-No.: (list no: 926-605-8) REACH-no: 01-2119486291- 36	< 10	Flam. Liq. 2, H225 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
hydrocarbons, C6, isoalkanes, < 5% n-hexane	EC-No.: (list no: 931-254-9) REACH-no: 01-2119484651- 34	< 10	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (Note P)	EC-No.: (list no: 921-024-6) REACH-no: 01-2119475514- 35	< 10	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
cyclohexane substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 110-82-7 EC-No.: 203-806-2 EC Index-No.: 601-017-00-1	≥ 5 – < 10	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4-tert-butylphenol formaldehyde resin	CAS-No.: 25085-50-1 EC-No.: 607-533-3	≥1-<5	Skin Sens. 1, H317
xylene substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 1330-20-7 EC-No.: 215-535-7 EC Index-No.: 601-022-00-9 REACH-no: 01-2119488216- 32	≥ 1 - < 1.5	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
n-hexane substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 110-54-3 EC-No.: 203-777-6 EC Index-No.: 601-037-00-0	< 1.5	Flam. Liq. 2, H225 Repr. 2, H361f Asp. Tox. 1, H304 STOT RE 2, H373 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
n-hexane	CAS-No.: 110-54-3 EC-No.: 203-777-6 EC Index-No.: 601-037-00-0	(5 ≤ C < 100) STOT RE 2, H373

Note P:

Note P: The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7). When the substance is not classified as a carcinogen at least the precautionary statements (P102-)P260-P262- P301 + P310-P331 (Table 3.1) or the S-phrases (2-)23-24-62 (Table 3.2) shall apply. This note applies only to certain complex oil-derived substances in Part 3.

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin

irritation occurs: Get medical advice/attention

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy First-aid measures after eye contact

to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion Rinse mouth out with water. Do NOT induce vomiting. Call a poison center or a doctor if you

feel unwell.

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

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after skin contact Irritation. Symptoms/effects after eye contact : Eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

Explosion hazard : Gas/vapour explosive with air within explosion limits.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon monoxide. Carbon dioxide.

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5.3. Advice for firefighters

Firefighting instructions : Cool closed containers exposed to fire with water spray.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Eliminate every possible source of ignition. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Use grounded electrical/mechanical equipment.

6.2. Environmental precautions

Avoid release to the environment

6.3. Methods and material for containment and cleaning up

For containment : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal

binding agents).

Methods for cleaning up : Take up liquid spill into absorbent material. Provide for ventilation. Scoop absorbed

substance into closing containers.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable. Take

precautionary measures against static discharge.

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking. Ground/bond container and receiving equipment. Use only non-sparking tools.

Take precautionary measures against static discharge. Flammable vapours may

accumulate in the container. Wear personal protective equipment. Use only outdoors or in a

well-ventilated area.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this

product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Incompatible products : Ignition sources. Heat sources.

7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

8.1.1 National occupational exposure and biological	minit values
xylene (1330-20-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Xylene, mixed isomers, pure
IOEL TWA	221 mg/m³
	50 ppm
IOEL STEL	442 mg/m³
	100 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom - Occupational Exposure Limits	
Local name	Xylene
WEL TWA (OEL TWA)	220 mg/m³
	50 ppm
WEL STEL (OEL STEL)	441 mg/m³
	100 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	Xylene, o-, m-, p- or mixed isomers
BMGV	650 mmol/mol Creatinine Parameter: methyl hippuric acid - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Acetone (67-64-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Acetone
IOEL TWA	1210 mg/m³
	500 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom - Occupational Exposure Limits	
Local name	Acetone
WEL TWA (OEL TWA)	1210 mg/m³
	500 ppm
WEL STEL (OEL STEL)	3620 mg/m³
	1500 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

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butanone (78-93-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Butanone
IOEL TWA	600 mg/m³
	200 ppm
IOEL STEL	900 mg/m³
	300 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom - Occupational Exposure Limits	
Local name	Butan-2-one (methyl ethyl ketone)
WEL TWA (OEL TWA)	600 mg/m³
	200 ppm
WEL STEL (OEL STEL)	899 mg/m³
	300 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	Butan-2-one (methyl ethyl ketone)
BMGV	70 μmol/l Parameter: butan-2-one - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
cyclohexane (110-82-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Cyclohexane
IOEL TWA	700 mg/m³
	200 ppm
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom - Occupational Exposure Limits	
Local name	Cyclohexane
WEL TWA (OEL TWA)	350 mg/m³
	100 ppm
WEL STEL (OEL STEL)	1050 mg/m³
	300 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
n-hexane (110-54-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	n-Hexane
IOEL TWA	72 mg/m³
	20 ppm

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n-hexane (110-54-3)	
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC COMMISSION DIRECTIVE 2006/15/EC
United Kingdom - Occupational Exposure Limits	
Local name	n-Hexane
WEL TWA (OEL TWA)	72 mg/m³
	20 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

0.1.4. DNEL and FNEC	
xylene (1330-20-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	442 mg/m³
Acute - local effects, inhalation	442 mg/m³
Long-term - systemic effects, dermal	212 mg/kg bw/day
Long-term - systemic effects, inhalation	221 mg/m³
Long-term - local effects, inhalation	221 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	260 mg/m³
Acute - local effects, inhalation	260 mg/m³
Long-term - systemic effects,oral	5 mg/kg bw/day
Long-term - systemic effects, inhalation	65.3 mg/m³
Long-term - systemic effects, dermal	125 mg/kg bw/day
Long-term - local effects, inhalation	65.3 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.327 mg/l
PNEC aqua (marine water)	0.327 mg/l
PNEC aqua (intermittent, freshwater)	0.327 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	12.46 mg/kg dwt
PNEC sediment (marine water)	12.46 mg/kg dwt
PNEC (Soil)	
PNEC soil	2.31 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	6.58 mg/l

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Acetone (67-64-1)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	2420 mg/m³
Long-term - systemic effects, dermal	186 mg/kg bw/day
Long-term - systemic effects, inhalation	1210 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	62 mg/kg bw/day
Long-term - systemic effects, inhalation	200 mg/m³
Long-term - systemic effects, dermal	62 mg/kg bw/day
PNEC (Water)	
PNEC aqua (freshwater)	10.6 mg/l
PNEC aqua (marine water)	1.06 mg/l
PNEC aqua (intermittent, freshwater)	21 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	30.4 mg/kg dwt
PNEC sediment (marine water)	3.04 mg/kg dwt
PNEC (Soil)	
PNEC soil	29.5 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l
hydrocarbons, C6, isoalkanes, < 5% n-hexane	
hydrocarbons, C6, isoalkanes, < 5% n-hexane DNEL/DMEL (Workers)	
	13964 mg/kg bodyweight/day
DNEL/DMEL (Workers)	
DNEL/DMEL (Workers) Long-term - systemic effects, dermal	13964 mg/kg bodyweight/day
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation	13964 mg/kg bodyweight/day
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population)	13964 mg/kg bodyweight/day 5306 mg/m³
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral	13964 mg/kg bodyweight/day 5306 mg/m³ 1301 mg/kg bodyweight/day
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation	13964 mg/kg bodyweight/day 5306 mg/m³ 1301 mg/kg bodyweight/day 1131 mg/m³ 1377 mg/kg bodyweight/day
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation Long-term - systemic effects, dermal	13964 mg/kg bodyweight/day 5306 mg/m³ 1301 mg/kg bodyweight/day 1131 mg/m³ 1377 mg/kg bodyweight/day
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation Long-term - systemic effects, dermal hydrocarbons, C6-C7, n-alkanes, isoalkanes,	13964 mg/kg bodyweight/day 5306 mg/m³ 1301 mg/kg bodyweight/day 1131 mg/m³ 1377 mg/kg bodyweight/day
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation Long-term - systemic effects, dermal hydrocarbons, C6-C7, n-alkanes, isoalkanes, DNEL/DMEL (Workers)	13964 mg/kg bodyweight/day 5306 mg/m³ 1301 mg/kg bodyweight/day 1131 mg/m³ 1377 mg/kg bodyweight/day cyclics, <5% n-hexane
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation Long-term - systemic effects, dermal hydrocarbons, C6-C7, n-alkanes, isoalkanes, DNEL/DMEL (Workers) Long-term - systemic effects, dermal	13964 mg/kg bodyweight/day 5306 mg/m³ 1301 mg/kg bodyweight/day 1131 mg/m³ 1377 mg/kg bodyweight/day cyclics, <5% n-hexane 773 mg/kg bodyweight/day
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation Long-term - systemic effects, dermal hydrocarbons, C6-C7, n-alkanes, isoalkanes, DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation	13964 mg/kg bodyweight/day 5306 mg/m³ 1301 mg/kg bodyweight/day 1131 mg/m³ 1377 mg/kg bodyweight/day cyclics, <5% n-hexane 773 mg/kg bodyweight/day
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation Long-term - systemic effects, dermal hydrocarbons, C6-C7, n-alkanes, isoalkanes, DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population)	13964 mg/kg bodyweight/day 5306 mg/m³ 1301 mg/kg bodyweight/day 1131 mg/m³ 1377 mg/kg bodyweight/day cyclics, <5% n-hexane 773 mg/kg bodyweight/day 2035 mg/m³
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation Long-term - systemic effects, dermal hydrocarbons, C6-C7, n-alkanes, isoalkanes, DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral	13964 mg/kg bodyweight/day 5306 mg/m³ 1301 mg/kg bodyweight/day 1131 mg/m³ 1377 mg/kg bodyweight/day cyclics, <5% n-hexane 773 mg/kg bodyweight/day 2035 mg/m³ 699 mg/kg bodyweight/day
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation Long-term - systemic effects, dermal hydrocarbons, C6-C7, n-alkanes, isoalkanes, DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation	13964 mg/kg bodyweight/day 5306 mg/m³ 1301 mg/kg bodyweight/day 1131 mg/m³ 1377 mg/kg bodyweight/day cyclics, <5% n-hexane 773 mg/kg bodyweight/day 2035 mg/m³ 699 mg/kg bodyweight/day 608 mg/m³
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation Long-term - systemic effects, dermal hydrocarbons, C6-C7, n-alkanes, isoalkanes, DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation Long-term - systemic effects, inhalation Long-term - systemic effects, dermal	13964 mg/kg bodyweight/day 5306 mg/m³ 1301 mg/kg bodyweight/day 1131 mg/m³ 1377 mg/kg bodyweight/day cyclics, <5% n-hexane 773 mg/kg bodyweight/day 2035 mg/m³ 699 mg/kg bodyweight/day 608 mg/m³
DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation Long-term - systemic effects, dermal hydrocarbons, C6-C7, n-alkanes, isoalkanes, DNEL/DMEL (Workers) Long-term - systemic effects, dermal Long-term - systemic effects, inhalation DNEL/DMEL (General population) Long-term - systemic effects, oral Long-term - systemic effects, inhalation Long-term - systemic effects, dermal butanone (78-93-3)	13964 mg/kg bodyweight/day 5306 mg/m³ 1301 mg/kg bodyweight/day 1131 mg/m³ 1377 mg/kg bodyweight/day cyclics, <5% n-hexane 773 mg/kg bodyweight/day 2035 mg/m³ 699 mg/kg bodyweight/day 608 mg/m³

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butanone (78-93-3)	
Long-term - systemic effects, dermal	1161 mg/kg bw/day
Long-term - systemic effects, inhalation	600 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	450 mg/m³
Long-term - systemic effects,oral	31 mg/kg bw/day
Long-term - systemic effects, inhalation	106 mg/m³
Long-term - systemic effects, dermal	412 mg/kg bw/day
PNEC (Water)	
PNEC aqua (intermittent, freshwater)	55.8 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Measure concentrations regularly, and at the time of any change occuring in conditions likely to have consequences on workers exposure. No open flames. No smoking. Use spark-/explosionproof appliances and lighting system.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses. ISO 16321-1

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing. Protective clothing (EN 14605 or EN 13034)

Hand protection:

Protective gloves against chemicals (EN 374)

8.2.2.3. Respiratory protection

Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

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Colour : Colourless. Odour : characteristic. Odour threshold Not available Melting point Not applicable Freezing point Not available Boiling point : > 35 °C Flammability : Not applicable Lower explosion limit : Not available Upper explosion limit : Not available : < 20 °C (ISO 2719 A) Flash point

Auto-ignition temperature : Not available
Decomposition temperature : Not available
pH : Not available

 $\begin{tabular}{lll} Viscosity, kinematic & : & 312-437 \ mm^2/s \ (calculated \ value, 20 \ ^{\circ}C) \\ Viscosity, \ dynamic & : & 250-350 \ mPa\cdot s \ (EN \ ISO \ 2555 \ 20 \ ^{\circ}C) \\ \end{tabular}$

Solubility : Not available
Partition coefficient n-octanol/water (Log Kow) : Not available
Vapour pressure : Not available
Vapour pressure at 50°C : Not available

Density : 0.8 g/cm³ (EN ISO 2811-2, 20°C)

Relative density : Not available Relative vapour density at 20°C : Not available Particle characteristics : Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : ≈ 89 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour. This gas is denser than air and may travel along the ground. Distance ignition possible.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Heat sources. Ignition sources.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified Acute toxicity (dermal) : Not classified

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Acute toxicity (inhalation) :	Not classified
hydrocarbons, C7, n-alkanes, isoalkanes, cyc	clics
LD50 dermal rat	2800 – 3100 mg/kg bodyweight Animal: rat
LC50 Inhalation - Rat	> 23.3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
xylene (1330-20-7)	
LD50 oral rat	> 4000 mg/kg bodyweight (Equivalent or similar to EU Method B.1, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 oral	4300 mg/kg bodyweight
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
LD50 dermal	> 5000 mg/kg bodyweight
LC50 Inhalation - Rat	29 g/m³
LC50 Inhalation - Rat (Dust/Mist)	> 10000 mg/l
Acetone (67-64-1)	
LD50 oral rat	5800 mg/kg (Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 15800 mg/kg bodyweight (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	132 mg/l (3 h, Rat, Male, Experimental value, Inhalation (vapours))
hydrocarbons, C6-C7, n-alkanes, isoalkanes,	cyclics, <5% n-hexane
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	5610 mg/m³
butanone (78-93-3)	5610 mg/m³
	2193 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s))
butanone (78-93-3)	2193 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female,
butanone (78-93-3) LD50 oral rat	2193 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 10 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value,
butanone (78-93-3) LD50 oral rat LD50 dermal rabbit	2193 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 10 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value,
butanone (78-93-3) LD50 oral rat LD50 dermal rabbit cyclohexane (110-82-7)	2193 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 10 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s)) > 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female,
butanone (78-93-3) LD50 oral rat LD50 dermal rabbit cyclohexane (110-82-7) LD50 oral rat	2193 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 10 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s)) > 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral) > 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male / female,
butanone (78-93-3) LD50 oral rat LD50 dermal rabbit cyclohexane (110-82-7) LD50 oral rat LD50 dermal rabbit	2193 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 10 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s)) > 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral) > 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal, 14 day(s)) > 32.88 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental
butanone (78-93-3) LD50 oral rat LD50 dermal rabbit cyclohexane (110-82-7) LD50 oral rat LD50 dermal rabbit LC50 Inhalation - Rat	2193 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 10 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s)) > 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral) > 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal, 14 day(s)) > 32.88 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental
butanone (78-93-3) LD50 oral rat LD50 dermal rabbit cyclohexane (110-82-7) LD50 oral rat LD50 dermal rabbit LC50 Inhalation - Rat n-hexane (110-54-3)	2193 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 10 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s)) > 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral) > 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal, 14 day(s)) > 32.88 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) 16000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female,
butanone (78-93-3) LD50 oral rat LD50 dermal rabbit cyclohexane (110-82-7) LD50 oral rat LD50 dermal rabbit LC50 Inhalation - Rat n-hexane (110-54-3) LD50 oral rat	2193 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 10 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s)) > 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral) > 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal, 14 day(s)) > 32.88 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) 16000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral) > 3350 mg/kg bodyweight (Equivalent or similar to OECD 402, 4 h, Rabbit, Male, Read-
butanone (78-93-3) LD50 oral rat LD50 dermal rabbit cyclohexane (110-82-7) LD50 oral rat LD50 dermal rabbit LC50 Inhalation - Rat n-hexane (110-54-3) LD50 oral rat LD50 dermal rabbit LC50 Inhalation - Rat	2193 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 10 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s)) > 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral) > 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal, 14 day(s)) > 32.88 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) 16000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral) > 3350 mg/kg bodyweight (Equivalent or similar to OECD 402, 4 h, Rabbit, Male, Readacross, Dermal, 14 day(s)) > 17.6 mg/l air (Equivalent or similar to OECD 403, 24 h, Rat, Male, Experimental value,
butanone (78-93-3) LD50 oral rat LD50 dermal rabbit cyclohexane (110-82-7) LD50 oral rat LD50 dermal rabbit LC50 Inhalation - Rat n-hexane (110-54-3) LD50 oral rat LD50 dermal rabbit LC50 Inhalation - Rat	2193 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s)) > 10 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s)) > 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral) > 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal, 14 day(s)) > 32.88 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) 16000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral) > 3350 mg/kg bodyweight (Equivalent or similar to OECD 402, 4 h, Rabbit, Male, Readacross, Dermal, 14 day(s)) > 17.6 mg/l air (Equivalent or similar to OECD 403, 24 h, Rat, Male, Experimental value, Inhalation (vapours))

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butanone (78-93-3)		
рН	No data available in the literature	
cyclohexane (110-82-7)		
рН	7 (0.005 %, 24 °C)	
n-hexane (110-54-3)		
pH	7 (< 0.01 %, 25 °C)	
Serious eye damage/irritation :	Causes serious eye irritation.	
Acetone (67-64-1)		
рН	5 – 6 (20 °C)	
butanone (78-93-3)		
рН	No data available in the literature	
cyclohexane (110-82-7)		
рН	7 (0.005 %, 24 °C)	
n-hexane (110-54-3)		
рН	7 (< 0.01 %, 25 °C)	
Respiratory or skin sensitisation :	May cause an allergic skin reaction.	
Germ cell mutagenicity :	Not classified	
Carcinogenicity :	Not classified	
Reproductive toxicity :	Not classified	
Acetone (67-64-1)		
LOAEL (animal/female, F0/P)	11298 mg/kg bodyweight Animal: mouse, Animal sex: female	
NOAEL (animal/male, F0/P)	900 mg/kg bodyweight Animal: rat, Animal sex: male, Remarks on results: other:Generation not specified (migrated information)	
STOT-single exposure :	May cause drowsiness or dizziness.	
hydrocarbons, C7, n-alkanes, isoalkanes, cyc	lics	
STOT-single exposure	May cause drowsiness or dizziness.	
hydrocarbons, C6-C7, isoalkanes, cyclics, <5	% n-hexane	
STOT-single exposure	May cause drowsiness or dizziness.	
xylene (1330-20-7)		
STOT-single exposure	May cause respiratory irritation.	
Acetone (67-64-1)		
STOT-single exposure	May cause drowsiness or dizziness.	
hydrocarbons, C6, isoalkanes, < 5% n-hexane		
STOT-single exposure	May cause drowsiness or dizziness.	
hydrocarbons, C6-C7, n-alkanes, isoalkanes,	cyclics, <5% n-hexane	
STOT-single exposure	May cause drowsiness or dizziness.	
butanone (78-93-3)		
STOT-single exposure	May cause drowsiness or dizziness.	

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cyclohexane (110-82-7)			
STOT-single exposure	May cause drowsiness or dizziness.		
n-hexane (110-54-3)			
STOT-single exposure	May cause drowsiness or dizziness.		
STOT-repeated exposure :	Not classified		
hydrocarbons, C7, n-alkanes, isoalkanes, cyc	lics		
LOAEC (inhalation, rat, vapour, 90 days)	16.6 mg/l air Animal: rat, Animal sex: male		
NOAEC (inhalation, rat, vapour, 90 days)	3.3 mg/l air Animal: rat, Animal sex: male		
xylene (1330-20-7)			
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)		
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.		
n-hexane (110-54-3)			
STOT-repeated exposure	May cause damage to organs (nervous system) through prolonged or repeated exposure (if inhaled).		
Aspiration hazard :	Not classified		
NMC-Fix			
Viscosity, kinematic	312 – 437 mm²/s (calculated value, 20°C)		
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics			
Viscosity, kinematic 0.67 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'			
hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane			
Viscosity, kinematic	1.02 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'		
xylene (1330-20-7)			
Viscosity, kinematic	0.74 mm²/s (20 °C)		
Acetone (67-64-1)			
Viscosity, kinematic	No data available in the literature		
hydrocarbons, C6, isoalkanes, < 5% n-hexane			
Viscosity, kinematic	0.46 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'		
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane			
Viscosity, kinematic 0.7 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'			
butanone (78-93-3)			
Viscosity, kinematic	No data available in the literature		
cyclohexane (110-82-7)			
Viscosity, kinematic	1.16 mm²/s (26 °C, Calculated)		
n-hexane (110-54-3)			
Viscosity, kinematic	No data available in the literature		

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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2. Other information

Potential adverse human health effects and symptoms

: Under normal conditions of use, no adverse effects to health have been observed

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term

: Not classified

(acute)

: Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, long-term

(chronic)

Not rapidly degradable

hydrocarbons, C7, n-alkanes, isoalkanes, cyclics			
LOEC (chronic)	0.32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'		
NOEC (chronic)	0.17 mg/l Test organisms (species): Daphnia magna Duration: '21 d'		
xylene (1330-20-7)			
LC50 - Fish [1]	2.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static renewal, Fresh water, Read-across, Lethal)		
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia		
EC50 - Other aquatic organisms [1]	350 mg/l waterflea		
ErC50 algae	4.4 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata Static system, Fresh water, Experimental value, GLP)		
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'		
Acetone (67-64-1)			
LC50 - Fish [1]	6210 – 8120 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow through system, Fresh water, Experimental value, Measured concentration)		
LOEC (chronic)	> 79 mg/l Test organisms (species): Daphnia magna Duration: '21 d'		
NOEC (chronic)	≥ 79 mg/l Test organisms (species): Daphnia magna Duration: '21 d'		
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane			
LC50 - Fish [1]	8.2 – 10 mg/l (read-across to all substances in the naphtha category)		
EC50 - Crustacea [1]	4.5 mg/l (read-across to all substances in the naphtha category)		
ErC50 algae	3.1 mg/l (read-across to all substances in the naphtha category)		
LOEC (chronic)	0.32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'		
NOEC (chronic)	0.17 mg/l Test organisms (species): Daphnia magna Duration: '21 d'		

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butanone (78-93-3)		
LC50 - Fish [1]	2973 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, GLP)	
EC50 - Crustacea [1]	308 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)	
EC50 72h - Algae [1]	1972 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
EC50 96h - Algae [1]	2029 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
ErC50 algae	1220 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)	
cyclohexane (110-82-7)		
LC50 - Fish [1]	4.5 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Measured concentration)	
EC50 - Crustacea [1]	0.9 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Static system, Freswater, Experimental value, Locomotor effect)	
EC50 72h - Algae [1]	9.3 mg/l (Equivalent or similar to OECD 201, Pseudokirchneriella subcapitata, Experimental value, Growth rate)	

12.2. Persistence and degradability

xylene (1330-20-7)		
Persistence and degradability	Readily biodegradable in water.	
Acetone (67-64-1)		
Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.	
Biochemical oxygen demand (BOD)	1.43 g O ₂ /g substance	
Chemical oxygen demand (COD)	1.92 g O₂/g substance	
ThOD	2.2 g O ₂ /g substance	
butanone (78-93-3)		
Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.	
Biochemical oxygen demand (BOD)	2.03 g O ₂ /g substance	
Chemical oxygen demand (COD)	2.31 g O₂/g substance	
ThOD	2.44 g O ₂ /g substance	
cyclohexane (110-82-7)		
Persistence and degradability	Readily biodegradable in water.	
Biochemical oxygen demand (BOD)	0.22 g O ₂ /g substance	
ThOD	3.425 g O₂/g substance	
n-hexane (110-54-3)		
Persistence and degradability	Readily biodegradable.	
ThOD	3.52 g O₂/g substance	

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12.3. Bioaccumulative potential

xylene (1330-20-7)		
BCF - Fish [1]	7.2 – 26 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Readacross)	
Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
Acetone (67-64-1)		
BCF - Fish [1]	0.69 (Pisces, Literature study)	
Partition coefficient n-octanol/water (Log Pow)	-0.23 (Test data)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
butanone (78-93-3)		
Partition coefficient n-octanol/water (Log Pow)	0.3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC meth 40 $^{\circ}\text{C})$	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
cyclohexane (110-82-7)		
BCF - Fish [1]	167 l/kg (Pimephales promelas, QSAR, Fresh weight)	
Partition coefficient n-octanol/water (Log Pow)	3.4 (Experimental value, 25 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
n-hexane (110-54-3)		
BCF - Fish [1]	501.187 (Pimephales promelas, Calculated value)	
Partition coefficient n-octanol/water (Log Pow)	4 (Experimental value, Equivalent or similar to OECD 107, 20 °C)	
Bioaccumulative potential	Potentially bioaccumulable.	

12.4. Mobility in soil

•				
xylene (1330-20-7)				
Surface tension	28.01 – 29.76 mN/m (25 °C)			
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.7 (log Koc, Equivalent or similar to OECD 121, Read-across)			
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.			
Acetone (67-64-1)				
Surface tension	23.3 mN/m (20 °C)			
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.374 – 0.988 (log Koc, SRC PCKOCWIN v2.0, Calculated value)			
Ecology - soil	Highly mobile in soil.			
butanone (78-93-3)				
Surface tension	No data available in the literature			
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.654 – 1.281 (log Koc, SRC PCKOCWIN v2.0, Calculated value)			
Ecology - soil	Highly mobile in soil. Slightly harmful to plants.			

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cyclohexane (110-82-7)		
Surface tension	No data available in the literature	
Organic Carbon Normalized Adsorption Coefficient (Log Koc) 2.9 (log Koc, QSAR)		
Ecology - soil	Low potential for adsorption in soil.	
n-hexane (110-54-3)		
Surface tension	17.89 mN/m (25 °C, 1 g/l)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	cient 3.34 (log Koc, QSAR)	
Ecology - soil	Low potential for mobility in soil.	

12.5. Results of PBT and vPvB assessment

Component		
xylene (1330-20-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
Acetone (67-64-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
butanone (78-93-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
cyclohexane (110-82-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
n-hexane (110-54-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties

: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

12.7. Other adverse effects

Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Additional information

Ecological information

Regional waste regulation : Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008

on waste and repealing certain Directives.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Sewage disposal recommendations

: Do not discharge into drains or the environment.

: Flammable vapours may accumulate in the container.

: Avoid release to the environment.

European List of Waste (LoW, EC 2000/532) : 08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances

15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

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

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ADR	IMDG IATA		ADN	RID	
14.1. UN number or ID number					
UN 1133	UN 1133	UN 1133	UN 1133	UN 1133	
14.2. UN proper shippin	g name				
ADHESIVES	ADHESIVES	Adhesives	ADHESIVES	ADHESIVES	
Transport document descr	iption				
UN 1133 ADHESIVES, 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1133 ADHESIVES, 3, II, MARINE POLLUTANT/ENVIRONME NTALLY HAZARDOUS (20°C c.c.)	UN 1133 Adhesives, 3, II, ENVIRONMENTALLY HAZARDOUS	UN 1133 ADHESIVES, 3, II, ENVIRONMENTALLY HAZARDOUS	UN 1133 ADHESIVES, 3, II, ENVIRONMENTALLY HAZARDOUS	
14.3. Transport hazard	class(es)				
3	3	3	3	3	
3	3	3	3	₩	
14.4. Packing group					
II	II	II	II	II	
14.5. Environmental hazards					
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	
No supplementary information	n available			ı	

14.6. Special precautions for user

Overland transport

Classification code (ADR) : F1
Special provisions (ADR) : 640D
Limited quantities (ADR) : 51
Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02, R001

 Special packing provisions (ADR)
 : PP1

 Mixed packing provisions (ADR)
 : MP19

 Portable tank and bulk container instructions (ADR)
 : T4

 Portable tank and bulk container special provisions
 : TP1, TP8

(ADR)

Tank code (ADR) : LGBF
Vehicle for tank carriage : FL
Transport category (ADR) : 2
Special provisions for carriage - Operation (ADR) : S2, S20
Hazard identification number (Kemler No.) : 33

Hazard identification number (Kemler No.) : 33
Orange plates :

33 1133

Tunnel restriction code (ADR) : D/E EAC code : •3YE

Transport by sea

Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E2

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Packing instructions (IMDG) : P001 Special packing provisions (IMDG) : PP1 IBC packing instructions (IMDG) IBC02 Tank instructions (IMDG) T4 Tank special provisions (IMDG) TP1, TP8 EmS-No. (Fire) F-E EmS-No. (Spillage) S-D Stowage category (IMDG) В

Properties and observations (IMDG) Adhesives are solutions of gums, resins, etc., usually volatile due to the solvents. Miscibility

with water depends upon their composition.

Air transport

PCA Excepted quantities (IATA) · F2 PCA Limited quantities (IATA) Y341 PCA limited quantity max net quantity (IATA) 1L PCA packing instructions (IATA) 353 PCA max net quantity (IATA) : 5L CAO packing instructions (IATA) 364 CAO max net quantity (IATA) : 60L Special provisions (IATA) : A3 ERG code (IATA) 3L

Inland waterway transport

: F1 Classification code (ADN) Special provisions (ADN) : 640D Limited quantities (ADN) : 5 L Excepted quantities (ADN) : E2 Equipment required (ADN) : PP, EX, A Ventilation (ADN) VE01 Number of blue cones/lights (ADN) : 1

Rail transport

Classification code (RID) : F1 Special provisions (RID) 640D Limited quantities (RID) 5L Excepted quantities (RID) E2

: P001, IBC02, R001 Packing instructions (RID)

Special packing provisions (RID) : PP1 Mixed packing provisions (RID) MP19 Portable tank and bulk container instructions (RID) T4 TP1, TP8 Portable tank and bulk container special provisions :

(RID)

Tank codes for RID tanks (RID) : LGBF Transport category (RID) : 2 Colis express (express parcels) (RID) : CE7 Hazard identification number (RID) 33

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(a)	NMC-Fix; hydrocarbons, C7, n-alkanes, isoalkanes, cyclics; hydrocarbons, C6, isoalkanes, < 5% n- hexane; hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane; hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane; xylene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	NMC-Fix; hydrocarbons, C7, n-alkanes, isoalkanes, cyclics; hydrocarbons, C6, isoalkanes, < 5% n- hexane; hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane; hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane; xylene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	NMC-Fix; hydrocarbons, C7, n-alkanes, isoalkanes, cyclics; hydrocarbons, C6, isoalkanes, < 5% n- hexane; hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane; hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

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VOC Directive (2004/42)

VOC content : ≈ 89 %

Explosives Precursors Regulation (2019/1148)

Contains substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

ANNEX II REPORTABLE EXPLOSIVES PRECURSORS

List of substances on their own or in mixtures or in substances for which suspicious transactions and significant disappearances and thefts are to be reported within 24 hours.

Name		Nomenclature	Combined Nomenclature code for mixture without constituents which would determine classification under another CN code
Acetone	67-64-1	2914 11 00	ex 3824 99 92

Please see https://home-affairs.ec.europa.eu/policies/internal-security/counter-terrorism-and-radicalisation/protection/legislation-chemicals-usedhome-made-explosives en

Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Name	CN designation	CAS-No.	CN code	Category	Threshold	Annex
Acetone		67-64-1	2914 11 00	Category 3		Annex I
Methylethylketone	Butanone	78-93-3	2914 12 00	Category 3		Annex I

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Label elements. Composition/information on ingredients.

Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	

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Abbreviations and acronyms:			
IATA	International Air Transport Association		
IMDG	International Maritime Dangerous Goods		
LC50	Median lethal concentration		
LD50	Median lethal dose		
LOAEL	Lowest Observed Adverse Effect Level		
NOAEC	No-Observed Adverse Effect Concentration		
NOAEL	No-Observed Adverse Effect Level		
NOEC	No-Observed Effect Concentration		
OECD	Organisation for Economic Co-operation and Development		
OEL	Occupational Exposure Limit		
PBT	Persistent Bioaccumulative Toxic		
PNEC	Predicted No-Effect Concentration		
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail		
SDS	Safety Data Sheet		
STP	Sewage treatment plant		
ThOD	Theoretical oxygen demand (ThOD)		
TLM	Median Tolerance Limit		
VOC	Volatile Organic Compounds		
CAS-No.	Chemical Abstract Service number		
N.O.S.	Not Otherwise Specified		
vPvB	Very Persistent and Very Bioaccumulative		
ED	Endocrine disrupting properties		

Full text of H- and EUH-statements:			
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4		
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4		
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1		
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1		
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2		
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3		
Asp. Tox. 1	Aspiration hazard, Category 1		
EUH066	Repeated exposure may cause skin dryness or cracking.		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2		
Flam. Liq. 2	Flammable liquids, Category 2		
Flam. Liq. 3	Flammable liquids, Category 3		
H225	Highly flammable liquid and vapour.		
H226	Flammable liquid and vapour.		
H304	May be fatal if swallowed and enters airways.		
H312	Harmful in contact with skin.		

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Full text of H- and EUH-statements:		
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H319	Causes serious eye irritation.	
H332	Harmful if inhaled.	
H335	May cause respiratory irritation.	
H336	May cause drowsiness or dizziness.	
H361f	Suspected of damaging fertility.	
H373	May cause damage to organs through prolonged or repeated exposure.	
H400	Very toxic to aquatic life.	
H410	Very toxic to aquatic life with long lasting effects.	
H411	Toxic to aquatic life with long lasting effects.	
H412	Harmful to aquatic life with long lasting effects.	
Repr. 2	Reproductive toxicity, Category 2	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
Skin Sens. 1	Skin sensitisation, Category 1	
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2	
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis	

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:			
Flam. Liq. 2	H225	On basis of test data	
Skin Irrit. 2	H315	Calculation method	
Eye Irrit. 2	H319	Calculation method	
Skin Sens. 1	H317	Calculation method	
STOT SE 3	H336	Calculation method	
Aquatic Chronic 2	H411	Calculation method	

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.