

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 11/30/2007 Revision date: 6/16/2017 Version: 1

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

1.1. Product identifier

Product form : Mixture
Product name : CVL Extra

UFI : J81H-E0EH-0005-RSU7

Product code : 5792

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Fuel additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Millers Oils Ltd Hillside Oilworks Rastrick Common HD6 3DP Brighouse – West Yorkshire United Kingdom T +44 (0)1484 713201 - F +44 (0)1484 721263

h.s@millersoils.co.uk

1.4. Emergency telephone number

Emergency number : +44 (0)1484 713201

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]

Serious eye damage/eye irritation, Category 1 H318
Carcinogenicity, Category 2 H351
Reproductive toxicity, Category 1A H360FD
Specific target organ toxicity – Single exposure, Category 3, Narcosis H336
Aspiration hazard, Category 1 H304
Hazardous to the aquatic environment – Chronic Hazard, Category 1 H410

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

Adverse physicochemical, human health and environmental effects

Suspected of causing cancer. May damage fertility or the unborn child. May cause drowsiness or dizziness. Causes serious eye damage. May be fatal if swallowed and enters airways. Very 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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GHS05 GHS07 GHS08 GHS09

Signal word (CLP) : Danger

Contains : HYDROCARBONS, C10, AROMATICS, <1% NAPHTHALENE; Hydrocarbons, C10,

aromatics, >1% naphthalene; Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene; POTASSIUM 1,2-BIS(2-ETHYLHEXYLOXYCARBONYL)-ETHANESULPHONATE; naphthalene; HYDROCARBONS, C11-14, N-ALKANES, ISOALKANES, CYCLIC, <2%

AROMATICS

Hazard statements (CLP) : H304 - May be fatal if swallowed and enters airways.

H318 - Causes serious eye damage. H336 - May cause drowsiness or dizziness. H351 - Suspected of causing cancer.

H360FD - May damage fertility. May damage the unborn child. H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

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

P273 - Avoid release to the environment.

P280 - Wear eye protection, face protection, protective clothing, protective gloves. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P331 - Do NOT induce vomiting.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

P405 - Store locked up.

P102 - Keep out of reach of children.

EUH-statements : EUH066 - Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

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

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
HYDROCARBONS, C10, AROMATICS, <1% NAPHTHALENE	EC-No.: 918-811-1 REACH-no: 01-2119463583- 34	≥ 70	Aquatic Chronic 2, H411 Asp. Tox. 1, H304 STOT SE 3, H336
Hydrocarbons, C10, aromatics, >1% naphthalene substance with a Community workplace exposure limit	CAS-No.: 64742-94-5 EC-No.: 919-284-0 REACH-no: 01-2119463588- 24	≥ 10 - < 30	STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene	CAS-No.: 64742-94-5 EC-No.: 265-198-5 REACH-no: 01-2119451151- 53	≥ 1 – < 10	Carc. 2, H351 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
POTASSIUM 1,2-BIS(2- ETHYLHEXYLOXYCARBONYL)- ETHANESULPHONATE	CAS-No.: 7491-09-0 EC-No.: 231-308-5 REACH-no: 01-2119919740- 39	≥ 1 – < 10	Skin Irrit. 2, H315 Eye Dam. 1, H318

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
FERROCENE substance with national workplace exposure limit(s) (ES, FI, FR, GR, IE, PT, CH)	CAS-No.: 102-54-5 EC-No.: 203-039-3 REACH-no: 01-2119978280- 34	< 10	Flam. Sol. 1, H228 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Repr. 1A, H360FD STOT RE 2, H373 Aquatic Chronic 1, H410
naphthalene substance with national workplace exposure limit(s) (BE, BG, CZ, DE, DK, EE, ES, FI, FR, GR, HR, HU, IE, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK, AL, IS, NO, RS, CH); substance with a Community workplace exposure limit	CAS-No.: 91-20-3 EC-No.: 202-049-5 EC Index-No.: 601-052-00-2	< 10	Carc. 2, H351 Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
HYDROCARBONS, C11-14, N-ALKANES, ISOALKANES, CYCLIC, <2% AROMATICS substance with a Community workplace exposure limit	EC-No.: 926-141-6 REACH-no: 01-2119456620- 43	< 10	Asp. Tox. 1, H304
1,2,4-trimethylbenzene substance with national workplace exposure limit(s) (BG, CZ, DE, DK, EE, ES, FI, FR, GR, HR, HU, IE, IT, LU, LV, MT, NL, PL, RO, SE, SI, SK, AL, IS, NO, RS); substance with a Community workplace exposure limit	REACH-no: 01-2119472135-	<1	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Aquatic Chronic 2, H411

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 : If you feel unwell, seek medical advice.

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

advice/attention if you feel unwell.

First-aid measures after skin contact : Wash skin with plenty of water. Take off immediately all contaminated clothing and wash it

before reuse.

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

to do. Continue rinsing. Get immediate medical advice/attention.

First-aid measures after ingestion : Do not induce vomiting. Get medical advice/attention if you feel unwell. Rinse mouth.

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

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after skin contact : Repeated exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Swallowing the liquid may cause aspiration into the lungs with the risk of chemical

pneumonitis.

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 : Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Water.

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5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

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

6.1.1. For non-emergency personnel

Emergency procedures : See section 8 of the SDS for more information on personal protective equipment. Ventilate

spillage area.

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 : Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb spilled material with sand or earth. For large spills, confine the spill in a dike and

charge it with wet sand or earth for subsequent safe disposal.

Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local

legislation. Absorb spilled material with sand or earth.

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

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Hydrocarbons, C10, aromatics, >1% naphthalene (64742-94-5)

EU - Indicative Occupational Exposure Limit (IOEL)

IOEL TWA 50 mg/m³

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Hydrocarbons, C10, aromatics, >1% naphthalene (64742-94-5)		
IOEL TWA [ppm]	10 ppm	
naphthalene (91-20-3)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Naphthalene	
IOEL TWA	50 mg/m³	
IOEL TWA [ppm]	10 ppm	
Remark	(Year of adoption 2010)	
Regulatory reference	COMMISSION DIRECTIVE 91/322/EEC; SCOEL Recommendations	
HYDROCARBONS, C11-14, N-ALKANES, ISOALKANES, CYCLIC, <2% AROMATICS		
EU - Indicative Occupational Exposure Limit (IOEL)		
IOEL TWA [ppm]	200 ppm	
1,2,4-trimethylbenzene (95-63-6)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	1,2,4-Trimethylbenzene	
IOEL TWA	100 mg/m³	
IOEL TWA [ppm]	20 ppm	
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC	

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

Hydrocarbons, C10, aromatics, >1% naphthalene (64742-94-5)			
DNEL/DMEL (Workers)			
Long-term - systemic effects, dermal	12.5 mg/kg bodyweight/day		
Long-term - systemic effects, inhalation	151 mg/m³		
DNEL/DMEL (General population)			
Long-term - systemic effects,oral 7.5 mg/kg bodyweight/day			
Long-term - systemic effects, inhalation	32 mg/m³		
Long-term - systemic effects, dermal	7.5 mg/kg bodyweight/day		
Hydrocarbons, C10-C13, Aromatics, >1% Napl	Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene (64742-94-5)		
DNEL/DMEL (Workers)			
Long-term - systemic effects, dermal	23.4 mg/kg bodyweight/day		
Long-term - systemic effects, inhalation	3.25 mg/m³		
DNEL/DMEL (General population)			
Long-term - systemic effects,oral	2.1 mg/kg bodyweight/day		
Long-term - systemic effects, inhalation	10.2 mg/m³		
Long-term - systemic effects, dermal	42.4 mg/kg bodyweight/day		

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POTASSIUM 1,2-BIS(2-ETHYLHEXYLOXYCARBONYL)-ETHANESULPHONATE (7491-09-0)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	10 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	98.7 mg/m³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	5 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	14.8 mg/m³	
Long-term - systemic effects, dermal	5 mg/kg bodyweight/day	
PNEC (Water)		
PNEC aqua (freshwater)	0.0066 mg/l	
PNEC aqua (marine water)	0.00066 mg/l	
PNEC aqua (intermittent, freshwater)	0.066 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	0.525 mg/kg dwt	
PNEC sediment (marine water)	0.0525 mg/kg dwt	
PNEC (Soil)		
PNEC soil	0.101 mg/kg dwt	
PNEC (STP)		
PNEC sewage treatment plant	122 mg/l	
FERROCENE (102-54-5)		
DNEL/DMEL (Workers)		
Acute - systemic effects, inhalation	0.04 mg/m³	
Long-term - systemic effects, dermal	0.025 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	0.02 mg/m³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	0.013 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	0.005 mg/m³	
Long-term - systemic effects, dermal	0.013 mg/kg bodyweight/day	
PNEC (Water)		
PNEC aqua (freshwater)	0.00003 mg/l	
PNEC aqua (marine water)	0.000003 mg/l	
PNEC aqua (intermittent, freshwater)	0.0103 mg/l	
PNEC aqua (intermittent, marine water)	1.03 µg/l	
PNEC (STP)		
PNEC sewage treatment plant	0.876 mg/l	
naphthalene (91-20-3)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	3.57 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	25 mg/m³	

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naphthalene (91-20-3)			
Long-term - local effects, inhalation	25 mg/m³		
PNEC (Water)			
PNEC aqua (freshwater)	2.4 µg/l		
PNEC aqua (marine water)	2.4 µg/l		
PNEC aqua (intermittent, freshwater)	20 μg/l		
PNEC (Sediment)			
PNEC sediment (freshwater)	67.2 μg/kg dw		
PNEC sediment (marine water)	67.2 μg/kg dw		
PNEC (Soil)			
PNEC soil	53.3 µg/kg dw		
PNEC (STP)			
PNEC sewage treatment plant	2.9 mg/l		
1,2,4-trimethylbenzene (95-63-6)			
DNEL/DMEL (Workers)			
Acute - systemic effects, inhalation	100 mg/m³		
Acute - local effects, inhalation	100 mg/m³		
Long-term - systemic effects, dermal	16171 mg/kg bodyweight/day		
Long-term - systemic effects, inhalation	100 mg/m³		
Long-term - local effects, inhalation	100 mg/m³		
DNEL/DMEL (General population)			
Acute - systemic effects, inhalation	29.4 mg/m³		
Acute - local effects, inhalation	29.4 mg/m³		
Long-term - systemic effects,oral	15 mg/kg bodyweight/day		
Long-term - systemic effects, inhalation	29.4 mg/m³		
Long-term - systemic effects, dermal	9512 mg/kg bodyweight/day		
Long-term - local effects, inhalation	29.4 mg/m³		
PNEC (Water)	PNEC (Water)		
PNEC aqua (freshwater)	0.12 mg/l		
PNEC aqua (marine water)	0.12 mg/l		
PNEC aqua (intermittent, freshwater)	0.12 mg/l		
PNEC (Sediment)			
PNEC sediment (freshwater)	13.56 mg/kg dwt		
PNEC sediment (marine water)	13.56 mg/kg dwt		
PNEC (Soil)			
PNEC soil	2.34 mg/kg dwt		
PNEC (STP)			
PNEC sewage treatment plant	2.41 mg/l		

8.1.5. Control banding

No additional information available

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Protective goggles (EN 166)

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

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 amber. Colour Odour : Pungent. Odour threshold : Not available Melting point Not available Freezing point Not available Boiling point 160 - 220 °C Flammability Non flammable. **Explosive limits** Not available Lower explosion limit Not available Upper explosion limit : Not available Flash point : > 66 °C Auto-ignition temperature Not available Decomposition temperature : Not available рΗ : Not available Viscosity, kinematic 1.03 mm²/s @40oC

Solubility : Insoluble.

Partition coefficient n-octanol/water (Log Kow) : Not available

Vapour pressure : Not available

Vapour pressure at 50°C : Not available

Density : Not available

Relative density : 0.897

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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

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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

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

10.5. Incompatible materials

Oxidizing agent.

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
Acute toxicity (inhalation) : Not classified

HYDROCARBONS, C10, AROMATICS, <1% NAPHTHALENE

LD50 dermal 2000 mg/kg

Hydrocarbons, C10, aromatics, >1% naphthalene (64742-94-5)

LD50 dermal rabbit > 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene (64742-94-5)

LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: other:
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: EPA OTS 798.1100 (Acute Dermal Toxicity)

POTASSIUM 1,2-BIS(2-ETHYLHEXYLOXYCARBONYL)-ETHANESULPHONATE (7491-09-0)

LD50 dermal rabbit	> 10000 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline
	402 (Acute Dermal Toxicity)

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FERROCENE (102-54-5)

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PERROCENE (102-54-5)	4000 # 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
LD50 oral rat	1320 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity
LD50 dermal rat	> 3000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
naphthalene (91-20-3)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 0.4 mg/l air Animal: rat, Guideline: other:, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
HYDROCARBONS, C11-14, N-ALKANES,	ISOALKANES, CYCLIC, <2% AROMATICS
LD50 oral rat	> 5000 mg/kg
LD50 dermal	> 5000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	≤ mg/l/4h
LC50 Inhalation - Rat (Vapours)	> 5000 mg/l/4h
1,2,4-trimethylbenzene (95-63-6)	
LD50 oral rat	6000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EU Method B.1 (Acute Toxicity (Oral)), 95% CL: 4920 - 7320
LC50 Inhalation - Rat	10.2 mg/l air Animal: rat
kin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Serm cell mutagenicity	: Not classified
Carcinogenicity Reproductive toxicity	: Suspected of causing cancer.: May damage fertility. May damage the unborn child.
Hydrocarbons, C10-C13, Aromatics, >1%	
NOAEL (animal/male, F0/P)	35 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicit Screening Test), Guideline: other:
NOAEL (animal/female, F0/P)	125 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicit Screening Test), Guideline: other:
naphthalene (91-20-3)	
LOAEL (animal/female, F0/P)	50 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: other:
LOAEL (animal/female, F1)	450 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: other:
NOAEL (animal/female, F0/P)	120 mg/kg bodyweight Animal: rabbit, Animal sex: female, Guideline: other:
STOT-single exposure	: May cause drowsiness or dizziness.
HYDROCARBONS, C10, AROMATICS, <1	% NAPHTHALENE
STOT-single exposure	May cause drowsiness or dizziness.
Hydrocarbons, C10, aromatics, >1% naph	nthalene (64742-94-5)
STOT-single exposure	May cause drowsiness or dizziness.
4.2.4 trimethylbonzone (OF C2 C)	
1,2,4-trimethylbenzene (95-65-6)	
1,2,4-trimethylbenzene (95-63-6) STOT-single exposure	May cause respiratory irritation.

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Hydrocarbons, C10, aromatics, >1% naph	nthalene (64742-94-5)	
NOAEL (oral, rat, 90 days)	300 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90- Day Oral Toxicity Study in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)	
Hydrocarbons, C10-C13, Aromatics, >1%	Naphthalene (64742-94-5)	
LOAEC (inhalation, rat, vapour, 90 days)	4.71 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)	
NOAEC (inhalation, rat, vapour, 90 days)	2.355 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90- Day Study)	
POTASSIUM 1,2-BIS(2-ETHYLHEXYLOXY	CARBONYL)-ETHANESULPHONATE (7491-09-0)	
NOAEL (oral, rat, 90 days)	> 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
FERROCENE (102-54-5)		
LOAEL (oral, rat, 90 days)	25 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)	
NOAEL (oral, rat, 90 days)	5 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.	
naphthalene (91-20-3)		
LOAEL (oral, rat, 90 days)	400 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
LOAEC (inhalation, rat, vapour, 90 days)	0.011 mg/l air Animal: rat, Guideline: EPA OPP 82-4 (90-Day Inhalation Toxicity), Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)	
NOAEL (oral, rat, 90 days)	200 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
NOAEL (dermal, rat/rabbit, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)	
1,2,4-trimethylbenzene (95-63-6)		
NOAEL (oral, rat, 90 days)	600 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
NOAEC (inhalation, rat, vapour, 90 days)	1.8 mg/l air Animal: rat, Guideline: OECD Guideline 452 (Chronic Toxicity Studies)	
Aspiration hazard	: May be fatal if swallowed and enters airways.	
CVL Extra		
Viscosity, kinematic	1.03 mm²/s @40oC	
HYDROCARBONS, C11-14, N-ALKANES, ISOALKANES, CYCLIC, <2% AROMATICS		
Viscosity, kinematic	≤ 2000000 mm²/s @40oC	

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

No additional information available

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SECTION 12: Ecological information

12.1. Toxicity

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

Hazardous to the aquatic environment, short-term : Not classified

(acute)

Hazardous to the aquatic environment, long-term : Very toxic to aquatic life with long lasting effects.

(chronic)

Not rapidly degradable

tot rapially abgradation			
HYDROCARBONS, C10, AROMATICS, <1% NAPHTHALENE			
LC50 - Fish [1]	2 – 5 mg/l		
EC50 - Other aquatic organisms [1]	3 – 10 mg/l		
Hydrocarbons, C10, aromatics, >1% naphthal	ene (64742-94-5)		
LC50 - Fish [1]	2 – 5 mg/l		
EC50 - Crustacea [1]	3 – 10 mg/l		
EC50 72h - Algae [1]	1 – 3 mg/l		
Hydrocarbons, C10-C13, Aromatics, >1% Nap	hthalene (64742-94-5)		
LC50 - Fish [1]	0.58 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)		
LC50 - Fish [2]	6.1 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)		
EC50 - Crustacea [1]	0.76 mg/l Test organisms (species): Daphnia magna		
EC50 - Other aquatic organisms [1]	2.9 mg/l Test organisms (species): other:		
POTASSIUM 1,2-BIS(2-ETHYLHEXYLOXYCAR	BONYL)-ETHANESULPHONATE (7491-09-0)		
LC50 - Fish [1]	49 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)		
EC50 - Crustacea [1]	6.6 mg/l Test organisms (species): Daphnia magna		
EC50 - Crustacea [2]	10.3 mg/l Test organisms (species): Daphnia magna		
FERROCENE (102-54-5)			
EC50 72h - Algae [1]	1.03 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)		
naphthalene (91-20-3)			
EC50 - Crustacea [1]	2.16 mg/l Test organisms (species): Daphnia magna		
NOEC (chronic)	0.59 mg/l Test organisms (species): Daphnia pulex Duration: '125 d'		
HYDROCARBONS, C11-14, N-ALKANES, ISOALKANES, CYCLIC, <2% AROMATICS			
LC50 - Fish [1]	> 1000 (2 – 5) mg/l		
EC50 - Crustacea [1]	> 1000 mg/l		
EC50 - Other aquatic organisms [1]	1.4 mg/l		
EC50 72h - Algae [1]	> 1000 mg/l		
1,2,4-trimethylbenzene (95-63-6)			
LC50 - Fish [1]	7.72 mg/l Test organisms (species): Pimephales promelas		
EC50 96h - Algae [1]	2.356 mg/l Test organisms (species): other:		

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12.2. Persistence and degradability

CVL Extra	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

CVL Extra	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

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

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

- Product/Packaging disposal recommendations
- : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- : Avoid release to the environment. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID n	14.1. UN number or ID number			
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Hydrocarbons, C10 aromatics and ferrocene.)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Hydrocarbons, C10 aromatics and ferrocene.)	Environmentally hazardous substance, liquid, n.o.s. (Contains Hydrocarbons, C10 aromatics and ferrocene.)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Hydrocarbons, C10 aromatics and ferrocene.)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Hydrocarbons, C10 aromatics and ferrocene.)

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ADR	IMDG	IATA	ADN	RID
Transport document descr	Transport document description			
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Hydrocarbons, C10 aromatics and ferrocene.), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Hydrocarbons, C10 aromatics and ferrocene.), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Contains Hydrocarbons, C10 aromatics and ferrocene.), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Hydrocarbons, C10 aromatics and ferrocene.), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Hydrocarbons, C10 aromatics and ferrocene.), 9, III
14.3. Transport hazard	14.3. Transport hazard class(es)			
9	9	9	9	9
		9	9	9
14.4. Packing group	14.4. Packing group			
III	III	III	III	III
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 available				1

14.6. Special precautions for user

Overland transport

Classification code (ADR) : M6

Special provisions (ADR) : 274, 335, 375, 601

Limited quantities (ADR) : 5I Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, 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, TP29

(ADR)

Tank code (ADR) : LGBV
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Special provisions for carriage - Loading, unloading : CV13

and handling (ADR)

Hazard identification number (Kemler No.) : 90

Orange plates

90 3082

Tunnel restriction code (ADR) : EAC code : •3Z

Transport by sea

Special provisions (IMDG) : 274, 335, 969

Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1

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Packing instructions (IMDG) : LP01. P001 Special packing provisions (IMDG) : PP1 IBC packing instructions (IMDG) : IBC03 Tank instructions (IMDG) T4 Tank special provisions (IMDG) TP1, TP29 EmS-No. (Fire) F-A EmS-No. (Spillage) : S-F Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L

Special provisions (IATA) : A97, A158, A197, A215

ERG code (IATA) : 9L

Inland waterway transport

Classification code (ADN) : M6

Special provisions (ADN) : 274, 335, 375, 601

Limited quantities (ADN) : 5 L

Excepted quantities (ADN) : E1

Carriage permitted (ADN) : T

Equipment required (ADN) : PP

Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : M6

Special provisions (RID) : 274, 335, 375, 601

Limited quantities (RID) : 5L Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Special packing provisions (RID) : PP1
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T4
Portable tank and bulk container special provisions : TP1, TP29

(RID)

Tank codes for RID tanks (RID) : LGBV

Transport category (RID) : 3

Special provisions for carriage – Packages (RID) : W12

Special provisions for carriage - Loading, unloading : CW13, CW31

and handling (RID)

Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 90

14.7. Maritime transport in bulk according to IMO instruments

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

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

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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)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no 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)

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

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	
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	

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Abbreviations and acronyms:	
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 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), 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	
Asp. Tox. 1	Aspiration hazard, Category 1	
Carc. 2	Carcinogenicity, Category 2	
EUH066	Repeated exposure may cause skin dryness or cracking.	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Flam. Liq. 3	Flammable liquids, Category 3	
Flam. Sol. 1	Flammable solids, Category 1	
H226	Flammable liquid and vapour.	
H228	Flammable solid.	
H302	Harmful if swallowed.	
H304	May be fatal if swallowed and enters airways.	
H315	Causes skin irritation.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	
H332	Harmful if inhaled.	
H335	May cause respiratory irritation.	

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Full text of H- and EUH-statements:	
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H360FD	May damage fertility. May damage the unborn child.
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.
Repr. 1A	Reproductive toxicity, Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

The classification complies with

: ATP 12

Safety Data Sheet (SDS), EU

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.