# CVL

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 11/30/2007 Revision date: 11/13/2023 Version: 1.1

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

### 1.1. Product identifier

Product form : Mixture
Product name : CVL
UFI : HPFG-N0X4-600Q-4TD0
Product code : 5587

### 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<br>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) :

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) : P273 - Avoid release to the environment.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
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.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
P331 - Do NOT induce vomiting.
P405 - Store locked up.
P102 - Keep out of reach of children.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

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<br>REACH-no: 01-2119463583-34 | ≥ 70 | Aquatic Chronic 2, H411<br>Asp. Tox. 1, H304<br>STOT SE 3, H336 |
| Hydrocarbons, C10, aromatics, >1% naphthalene substance with a Community workplace exposure limit | CAS-No.: 64742-94-5<br>EC-No.: 919-284-0<br>REACH-no: 01-2119463588-24 | ≥ 10 – < 30 | STOT SE 3, H336<br>Asp. Tox. 1, H304<br>Aquatic Chronic 2, H411 |
| Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene | CAS-No.: 64742-94-5<br>EC-No.: 265-198-5<br>REACH-no: 01-2119451151-53 | ≥ 1 – < 10 | Carc. 2, H351<br>Asp. Tox. 1, H304<br>Aquatic Chronic 2, H411 |
| POTASSIUM 1,2-BIS(2-ETHYLHEXYLOXYCARBONYL)-ETHANESULPHONATE | CAS-No.: 7491-09-0<br>EC-No.: 231-308-5<br>REACH-no: 01-2119919740-39 | ≥ 1 – < 10 | Skin Irrit. 2, H315<br>Eye Dam. 1, H318 |

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| FERROCENE<br>substance with national workplace exposure limit(s) (ES, FI, FR, GR, IE, PT, CH) | CAS-No.: 102-54-5<br>EC-No.: 203-039-3<br>REACH-no: 01-2119978280-34 | < 10 | Flam. Sol. 1, H228<br>Acute Tox. 4 (Oral), H302<br>Acute Tox. 4 (Inhalation), H332<br>Repr. 1A, H360FD<br>STOT RE 2, H373<br>Aquatic Chronic 1, H410 |
| naphthalene<br>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<br>EC-No.: 202-049-5<br>EC Index-No.: 601-052-00-2 | < 10 | Carc. 2, H351<br>Acute Tox. 4 (Oral), H302<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 |
| HYDROCARBONS, C11-14, N-ALKANES, ISOALKANES, CYCLIC, <2% AROMATICS<br>substance with a Community workplace exposure limit | EC-No.: 926-141-6<br>REACH-no: 01-2119456620-43 | < 10 | Asp. Tox. 1, H304 |
| 1,2,4-trimethylbenzene<br>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 | CAS-No.: 95-63-6<br>EC-No.: 202-436-9<br>EC Index-No.: 601-043-00-3<br>REACH-no: 01-2119472135-42 | < 1 | Flam. Liq. 3, H226<br>Acute Tox. 4 (Inhalation), H332<br>Eye Irrit. 2, H319<br>STOT SE 3, H335<br>Skin Irrit. 2, H315<br>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 : Strong water jet.

### 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 : Ventilate spillage area. See section 8 of the SDS for more information on personal protective equipment.

#### 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.

### 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 : Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Ensure good ventilation of the work station.

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 |
| 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% 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 |

| Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene (64742-94-5) | |
|---|---|
| Long-term - systemic effects, inhalation | 10.2 mg/m³ |
| Long-term - systemic effects, dermal | 42.4 mg/kg bodyweight/day |
| **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 |
| 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 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 |

| 1,2,4-trimethylbenzene (95-63-6) | |
|---|---|
| **PNEC (STP)** | |
| PNEC sewage treatment plant | 2.41 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.

#### 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 |
| Colour | : | amber. |
| Odour | : | Pungent. |
| Odour threshold | : | Not available |
| Melting point | : | Not available |
| Freezing point | : | Not available |
| Boiling point | : | 160 – 230 °C |
| Flammability | : | Non flammable. |
| Explosive limits | : | Not available |
| Lower explosion limit | : | Not available |
| Upper explosion limit | : | Not available |
| Flash point | : | > 62 °C |
| Auto-ignition temperature | : | > 400 °C |
| Decomposition temperature | : | Not available |

| | | |
|---|---|---|
| pH | : | Not available |
| Viscosity, kinematic | : | 1.04 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 |
| 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: |

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

| FERROCENE (102-54-5) | |
|---|---|
| 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 |

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.
Reproductive toxicity : May damage fertility. May damage the unborn child.

| Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene (64742-94-5) | |
|---|---|
| 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 Toxicity 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 Toxicity 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% naphthalene (64742-94-5) | |
|---|---|
| STOT-single exposure | May cause drowsiness or dizziness. |

| 1,2,4-trimethylbenzene (95-63-6) | |
|---|---|
| STOT-single exposure | May cause respiratory irritation. |

STOT-repeated exposure : Not classified

| Hydrocarbons, C10, aromatics, >1% naphthalene (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-ETHYLHEXYLOXYCARBONYL)-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 | |
|---|---|
| Viscosity, kinematic | 1.04 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

## 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 (acute) : Not classified
Hazardous to the aquatic environment, long–term (chronic) : Very toxic to aquatic life with long lasting effects.
Not rapidly degradable

| 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% naphthalene (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% Naphthalene (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-ETHYLHEXYLOXYCARBONYL)-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: |

### 12.2. Persistence and degradability

| CVL | |
|---|---|
| Persistence and degradability | Not established. |

### 12.3. Bioaccumulative potential

| CVL | |
|---|---|
| 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

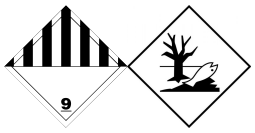
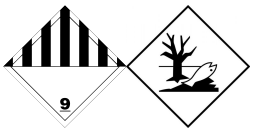
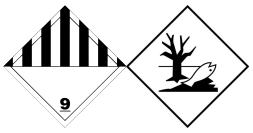
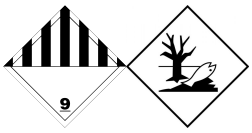
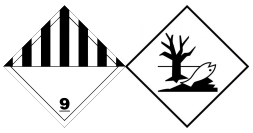
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : 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

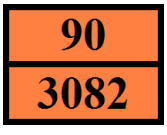
In accordance with ADR / IMDG / IATA / ADN / RID

| ADR | IMDG | IATA | ADN | RID |
|---|---|---|---|---|
| **14.1. UN number or ID number** | | | | |
| UN 3082 | UN 3082 | UN 3082 | UN 3082 | UN 3082 |

| ADR | IMDG | IATA | ADN | RID |
|---|---|---|---|---|
| **14.2. UN proper shipping name** | | | | |
| ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10 aromatics and ferrocene) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10 aromatics and ferrocene) | Environmentally hazardous substance, liquid, n.o.s. (Hydrocarbons, C10 aromatics and ferrocene) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10 aromatics and ferrocene) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10 aromatics and ferrocene) |
| **Transport document description** | | | | |
| UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10 aromatics and ferrocene), 9, III, (-) | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10 aromatics and ferrocene), 9, III, MARINE POLLUTANT | UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Hydrocarbons, C10 aromatics and ferrocene), 9, III | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10 aromatics and ferrocene), 9, III | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10 aromatics and ferrocene), 9, III |
| **14.3. Transport hazard class(es)** | | | | |
| 9 | 9 | 9 | 9 | 9 |
|  |  |  |  |  |
| **14.4. Packing group** | | | | |
| III | III | III | III | III |
| **14.5. Environmental hazards** | | | | |
| Dangerous for the environment: Yes | Dangerous for the environment: Yes<br>Marine pollutant: Yes | Dangerous for the environment: Yes | Dangerous for the environment: Yes | Dangerous for the environment: Yes |
| No supplementary information available | | | | |

## 14.6. Special precautions for user

**Overland transport**

| | | |
|---|---|---|
| Classification code (ADR) | : | M6 |
| Special provisions (ADR) | : | 274, 335, 375, 601 |
| Limited quantities (ADR) | : | 5l |
| 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 (ADR) | : | TP1, TP29 |
| 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 and handling (ADR) | : | CV13 |
| Hazard identification number (Kemler No.) | : | 90 |
| Orange plates | : |  |

| | | |
|---|---|---|
| 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 |
| 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 (RID) | : | TP1, TP29 |
| Tank codes for RID tanks (RID) | : | LGBV |
| Transport category (RID) | : | 3 |
| Special provisions for carriage – Packages (RID) | : | W12 |
| Special provisions for carriage - Loading, unloading and handling (RID) | : | CW13, CW31 |
| 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)

**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 |

| Abbreviations and acronyms: | |
|---|---|
| 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 (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. |

| Full text of H- and EUH-statements: | |
|---|---|
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| 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.