

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

1.1. Product identifier

Product form : Mixture
Product name : Custom PAH Mix
Product code : AL0-130136
Product group : Trade product

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

1.2.1. Relevant identified uses

Main use category : Laboratory use
Industrial/Professional use spec : Industrial
For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute Tox. 4 (Dermal) H312
Acute Tox. 4 (Inhalation) H332
Muta. 1B H340
Carc. 1B H350
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

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

Carc. Cat. 2; R45
Muta. Cat. 2; R46
Xn; R20/21
N; R50/53

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

GHS08

GHS09

Signal word (CLP) : Danger

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| | |
|--------------------------------|---|
| Hazard statements (CLP) | : H312+H332 - Harmful in contact with skin or if inhaled H340 - May cause genetic defects H350 - May cause cancer H410 - Very toxic to aquatic life with long lasting effects |
| Precautionary statements (CLP) | : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray P271 - Use only outdoors or in a well-ventilated area P273 - Avoid release to the environment P280 - Wear protective gloves/protective clothing/eye protection/face protection 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 P308+P313 - IF exposed or concerned: Get medical advice/attention P362+P364 - Take off contaminated clothing and wash it before reuse P391 - Collect spillage P403+P235 - Store in a well-ventilated place. Keep cool P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation |
| EUH-statements | : EUH208 - Contains benzo[a]pyrene(50-32-8), phenanthrene(85-01-8). May produce an allergic reaction |

No labelling applicable

2.3. Other hazards

Contains PBT substances >= 0.1% assessed in accordance with REACH Annex XIII

Contains PBT/vPvB substances >= 0.1% assessed in accordance with REACH Annex XIII

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] |
|---|---|------|--|
| Methylene Chloride (Component) | (CAS-No.) 75-09-2 (EC-No.) 200-838-9 (EC Index-No.) 602-004-00-3 | 96.2 | Carc. 2, H351 |
| anthracene (Component) substance listed as REACH Candidate | (CAS-No.) 120-12-7 (EC-No.) 204-371-1 | 0.2 | Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) |
| acenaphthene (Component) | (CAS-No.) 83-32-9 (EC-No.) 201-469-6 | 0.2 | Eye Irrit. 2, H319 Aquatic Chronic 2, H411 |
| Benzo(b)fluoranthene (Component) | (CAS-No.) 205-99-2 (EC-No.) 205-911-9 (EC Index-No.) 601-034-00-4 | 0.2 | Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| acenaphthylene (Component) | (CAS-No.) 208-96-8 (EC-No.) 205-917-1 | 0.2 | Acute Tox. 1 (Dermal), H310 |
| benzo[a]pyrene (Component) substance listed as REACH Candidate (Benzo[def]chrysene) | (CAS-No.) 50-32-8 (EC-No.) 200-028-5 (EC Index-No.) 601-032-00-3 | 0.2 | Skin Sens. 1, H317 Muta. 1B, H340 Carc. 1B, H350 Repr. 1B, H360FD Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) |
| benzo[a]anthracene (Component) | (CAS-No.) 56-55-3 (EC-No.) 200-280-6 (EC Index-No.) 601-033-00-9 | 0.2 | Carc. 1B, H350 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) |
| benzo(ghi)perylene (Component) | (CAS-No.) 191-24-2 (EC-No.) 205-883-8 | 0.2 | Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 |
| fluoranthene (Component) | (CAS-No.) 206-44-0 (EC-No.) 205-912-4 | 0.2 | Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) |
| chrysene (Component) | (CAS-No.) 218-01-9 (EC-No.) 205-923-4 (EC Index-No.) 601-048-00-0 | 0.2 | Muta. 2, H341 Carc. 1B, H350 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=1000) |
| benzo[k]fluoranthene (Component) | (CAS-No.) 207-08-9 (EC-No.) 205-916-6 (EC Index-No.) 601-036-00-5 | 0.2 | Carc. 1B, H350 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) |
| indeno(1,2,3-cd)pyrene (Component) | (CAS-No.) 193-39-5 (EC-No.) 205-893-2 | 0.2 | Carc. 1B, H350 |
| dibenz(a,h)anthracene (Component) | (CAS-No.) 53-70-3 (EC-No.) 200-181-8 (EC Index-No.) 601-041-00-2 | 0.2 | Carc. 1B, H350 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 |
| fluorene (Component) | (CAS-No.) 86-73-7 (EC-No.) 201-695-5 | 0.2 | Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |

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| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--------------------------------------|--|-------------------------------|---|
| naphthalene (Component) | (CAS-No.) 91-20-3 (EC-No.) 202-049-5 (EC Index-No.) 601-052-00-2 | 0.2 | Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| pyrene (Component) | (CAS-No.) 129-00-0 (EC-No.) 204-927-3 | 0.2 | Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) |
| phenanthrene (Component) | (CAS-No.) 85-01-8 (EC-No.) 201-581-5 | 0.2 | Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| 1-methylnaphthalene (Component) | (CAS-No.) 90-12-0 (EC-No.) 201-966-8 | 0.2 | Acute Tox. 4 (Oral), H302 Aquatic Chronic 2, H411 |
| 2-methylnaphthalene (Component) | (CAS-No.) 91-57-6 (EC-No.) 202-078-3 | 0.2 | Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 2, H411 |
| Name | Product identifier | Specific concentration limits | |
| benzo[a]pyrene (Component) | (CAS-No.) 50-32-8 (EC-No.) 200-028-5 (EC Index-No.) 601-032-00-3 | (C >= 0.01) Carc. 1B, H350 | |
| dibenz(a,h)anthracene (Component) | (CAS-No.) 53-70-3 (EC-No.) 200-181-8 (EC Index-No.) 601-041-00-2 | (C >= 0.01) Carc. 1B, H350 | |

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
- First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Immediately call a POISON CENTER or doctor/physician. Wash with plenty of soap and water. Wash contaminated clothing before reuse.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

- Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

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6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up in absorbent material. Collect spillage.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so.

Hygiene measures : Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.

Incompatible materials : Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Either local exhaust or general room ventilation is usually required.

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety glasses.



Hand protection : Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration.

Eye protection : Chemical goggles or safety glasses. Safety glasses.

Skin and body protection : Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact.

Respiratory protection : Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Colourless.

Odour : characteristic.

pH : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : Non flammable

Relative density : No data available

Solubility : No data available

Explosive properties : No data available

Oxidising properties : No data available

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Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

| Custom PAH Mix | |
|-------------------------------|---|
| ATE CLP (dermal) | 1100 mg/kg bodyweight |
| ATE CLP (gases) | 4500 ppmv/4h |
| ATE CLP (vapours) | 11 mg/l/4h |
| ATE CLP (dust,mist) | 1.5 mg/l/4h |
| anthracene (120-12-7) | |
| LD50 oral rat | > 16000 mg/kg (Rat) |
| acenaphthene (83-32-9) | |
| LD50 oral rat | > 5000 mg/kg (Rat) |
| acenaphthylene (208-96-8) | |
| ATE CLP (dermal) | 5 mg/kg bodyweight |
| fluoranthene (206-44-0) | |
| LD50 oral rat | 2000 mg/kg (Rat) |
| LD50 dermal rabbit | 3180 mg/kg (Rabbit) |
| ATE CLP (oral) | 2000 mg/kg bodyweight |
| ATE CLP (dermal) | 3180 mg/kg bodyweight |
| naphthalene (91-20-3) | |
| LD50 oral rat | > 1100 mg/kg (Rat) |
| LD50 dermal rat | > 2500 mg/kg (Rat) |
| LD50 dermal rabbit | > 20000 mg/kg (Rabbit) |
| ATE CLP (oral) | 500 mg/kg bodyweight |
| 1-methylnaphthalene (90-12-0) | |
| LD50 oral rat | 1840 mg/kg (Rat; Literature study) |
| LD50 dermal rabbit | > 5000 mg/kg (Rabbit; Literature study) |
| ATE CLP (oral) | 1840 mg/kg bodyweight |
| 2-methylnaphthalene (91-57-6) | |
| LD50 oral rat | 1630 mg/kg (Rat) |
| ATE CLP (oral) | 1630 mg/kg bodyweight |
| phenanthrene (85-01-8) | |
| LD50 oral rat | 1800 mg/kg (Rat) |
| ATE CLP (oral) | 1800 mg/kg bodyweight |
| pyrene (129-00-0) | |
| LD50 oral rat | 2700 mg/kg (Rat) |
| ATE CLP (oral) | 2700 mg/kg bodyweight |

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| Methylene Chloride (75-09-2) | |
|---|--|
| LD50 oral rat | > 2000 mg/kg (Rat; Literature study) |
| LD50 dermal rabbit | > 2000 mg/kg (Rabbit; Literature study) |
| Skin corrosion/irritation | : Not classified Based on available data, the classification criteria are not met |
| Serious eye damage/irritation | : Not classified Based on available data, the classification criteria are not met |
| Respiratory or skin sensitisation | : Not classified Based on available data, the classification criteria are not met |
| Germ cell mutagenicity | : May cause genetic defects. |
| Carcinogenicity | : May cause cancer. May cause cancer |
| Reproductive toxicity | : Not classified Based on available data, the classification criteria are not met |
| STOT-single exposure | : Not classified Based on available data, the classification criteria are not met |
| STOT-repeated exposure | : Not classified Based on available data, the classification criteria are not met |
| Aspiration hazard | : Not classified Based on available data, the classification criteria are not met |
| Potential adverse human health effects and symptoms | : Harmful in contact with skin. |

SECTION 12: Ecological information

12.1. Toxicity

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

| anthracene (120-12-7) | |
|--|---------------------------------------|
| LC50 fish 2 | 0.00127 mg/l (LC50; 96 h) |
| EC50 Daphnia 2 | 0.0012 mg/l (EC50; 24 h) |
| acenaphthene (83-32-9) | |
| EC50 Daphnia 1 | 3.45 mg/l (EC50; 48 h) |
| benzo[a]anthracene (56-55-3) | |
| LC50 fish 1 | 0.0018 mg/l (LC50; 65 h) |
| EC50 Daphnia 1 | 0.01 mg/l (EC50; 96 h) |
| benzo[a]pyrene (50-32-8) | |
| LC50 fish 1 | 0.0056 mg/l (LC50; 38 h) |
| EC50 Daphnia 1 | 0.005 mg/l (LC50; 96 h) |
| Threshold limit algae 1 | 0.015 mg/l (EC50; 72 h) |
| benzo(ghi)perylene (191-24-2) | |
| EC50 Daphnia 1 | 0.0002 mg/l (LC50; 14 h) |
| benzo[k]fluoranthene (207-08-9) | |
| EC50 Daphnia 1 | 0.0048 mg/l (LC50; 23 h) |
| chrysene (218-01-9) | |
| EC50 Daphnia 1 | 0.0007 mg/l (LC50; 24 h) |
| Threshold limit algae 1 | 0.001 mg/l (EC0) |
| dibenz(a,h)anthracene (53-70-3) | |
| EC50 Daphnia 1 | 0.0004 mg/l (LC50; 3 h) |
| fluoranthene (206-44-0) | |
| LC50 fish 1 | 0.0077 mg/l (LC50; 96 h) |
| EC50 Daphnia 1 | < 0.1 mg/l (EC50; 72 h) |
| Threshold limit algae 1 | 54 mg/l (EC50; 96 h) |
| fluorene (86-73-7) | |
| EC50 Daphnia 1 | 0.212 mg/l (EC50; 48 h) |
| LC50 fish 2 | 5.15 mg/l (LC50; 48 h) |
| naphthalene (91-20-3) | |
| EC50 Daphnia 1 | 2.16 mg/l (EC50; 48 h; Daphnia magna) |

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|--------------------------------------|---|
| naphthalene (91-20-3) | |
| LC50 fish 2 | 0.11 mg/l (LC50; 96 h; Oncorhynchus mykiss) |
| Threshold limit algae 1 | 0.4 mg/l (EC50; 72 h; Skeletonema costatum) |
| 1-methylnaphthalene (90-12-0) | |
| LC50 fish 1 | 8.4 mg/l (LC50; 48 h; Salmo fario) |
| EC50 Daphnia 1 | 1.848 mg/l (LC50; 48 h) |
| LC50 fish 2 | 9 mg/l (LC50; 96 h; Pimephales promelas) |
| EC50 Daphnia 2 | 1.2 mg/l (EC50; 48 h) |
| Threshold limit algae 1 | 1.71 - 5.12, EC50; 3 h |
| Threshold limit algae 2 | 1200 µg/l (EC50; 14 days) |
| 2-methylnaphthalene (91-57-6) | |
| LC50 fish 1 | 8 mg/l (LC50; 96 h) |
| phenanthrene (85-01-8) | |
| EC50 Daphnia 2 | 0.35 mg/l (EC50; 48 h) |
| Threshold limit algae 1 | 0.9 mg/l (EC50; 4 h) |
| pyrene (129-00-0) | |
| EC50 Daphnia 1 | > 0.0057 mg/l (LC50; 3.4 h) |
| EC50 other aquatic organisms 1 | 1.6 mg/l (3 h; Chlorella vulgaris) |
| LC50 fish 2 | 0.0026 mg/l (LC50; 96 h) |
| Methylene Chloride (75-09-2) | |
| LC50 fish 1 | 193 mg/l (LC50; 96 h; Pimephales promelas) |
| EC50 Daphnia 1 | 168.2 mg/l (EC50; 48 h) |

12.2. Persistence and degradability

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| Custom PAH Mix | |
| Persistence and degradability | May cause long-term adverse effects in the environment. |
| anthracene (120-12-7) | |
| Persistence and degradability | Not readily biodegradable in water. Forming sediments in water. |
| ThOD | 3.41 g O ₂ /g substance |
| BOD (% of ThOD) | 0.02 |
| acenaphthene (83-32-9) | |
| Persistence and degradability | Not readily biodegradable in water. Adsorbs into the soil. |
| acenaphthylene (208-96-8) | |
| Persistence and degradability | Biodegradability in soil: no data available. |
| benzo[a]anthracene (56-55-3) | |
| Persistence and degradability | Not readily biodegradable in water. Photolysis in water. Ozonation in water. Forming sediments in water. Biodegradability in soil: no data available. Inhibits biodegradation processes in the soil. Adsorbs into the soil. Photodegradation in the air. |
| ThOD | 2.95 g O ₂ /g substance |
| benzo[a]pyrene (50-32-8) | |
| Persistence and degradability | Not readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. |
| Chemical oxygen demand (COD) | 2.92 g O ₂ /g substance |
| ThOD | 2.92 g O ₂ /g substance |
| Benzo(b)fluoranthene (205-99-2) | |
| Persistence and degradability | Not readily biodegradable in water. Photolysis in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil. |
| ThOD | 2.92 g O ₂ /g substance |
| benzo(ghi)perylene (191-24-2) | |
| Persistence and degradability | Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil. |
| ThOD | 2.9 g O ₂ /g substance |
| benzo[k]fluoranthene (207-08-9) | |
| Persistence and degradability | Not readily biodegradable in water. Ozonation in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil. |
| ThOD | 2.92 g O ₂ /g substance |

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|--|--|
| chrysene (218-01-9) | |
| Persistence and degradability | Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil. |
| dibenz(a,h)anthracene (53-70-3) | |
| Persistence and degradability | Not readily biodegradable in water. Ozonation in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil. |
| fluoranthene (206-44-0) | |
| Persistence and degradability | Forming sediments in water. |
| fluorene (86-73-7) | |
| Persistence and degradability | Not readily biodegradable in water. Forming sediments in water. Adsorbs into the soil. |
| ThOD | 2.02 g O ₂ /g substance |
| indeno(1,2,3-cd)pyrene (193-39-5) | |
| Persistence and degradability | Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil. |
| ThOD | 2.9 g O ₂ /g substance |
| naphthalene (91-20-3) | |
| Persistence and degradability | Readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Photolysis in the air. |
| Biochemical oxygen demand (BOD) | 0 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 0.22 g O ₂ /g substance |
| ThOD | 2.99 g O ₂ /g substance |
| 1-methylnaphthalene (90-12-0) | |
| Persistence and degradability | Not readily biodegradable in water. Forming sediments in water. |
| 2-methylnaphthalene (91-57-6) | |
| Persistence and degradability | Inherently biodegradable. Not readily biodegradable in water. |
| phenanthrene (85-01-8) | |
| Persistence and degradability | Biodegradable in water. Forming sediments in water. Adsorbs into the soil. |
| pyrene (129-00-0) | |
| Persistence and degradability | Not readily biodegradable in water. Photolysis in water. Ozonation in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil. Photodegradation in the air. |
| Methylene Chloride (75-09-2) | |
| Persistence and degradability | Not readily biodegradable in water. Biodegradable in the soil. |

12.3. Bioaccumulative potential

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|-------------------------------------|---|
| Custom PAH Mix | |
| Bioaccumulative potential | Not established. |
| anthracene (120-12-7) | |
| BCF fish 1 | 903 - 2820 (BCF) |
| BCF fish 2 | 9200 (BCF) |
| BCF other aquatic organisms 1 | 7770 (BCF; 24 h; Chlorella sp.) |
| BCF other aquatic organisms 2 | 10500 (BCF) |
| Log Pow | 4.5 |
| Bioaccumulative potential | High potential for bioaccumulation (BCF > 5000). |
| acenaphthene (83-32-9) | |
| BCF fish 1 | 257 - 1270 (BCF) |
| BCF fish 2 | 387 (BCF; 28 days) |
| Log Pow | 3.92 (Experimental value) |
| Bioaccumulative potential | Potential for bioaccumulation (500 ≤ BCF ≤ 5000). |
| acenaphthylene (208-96-8) | |
| Bioaccumulative potential | No bioaccumulation data available. |
| benzo[a]anthracene (56-55-3) | |
| BCF fish 1 | 350 (BCF; 72 h) |
| BCF other aquatic organisms 1 | 1106 (BCF; 24 h) |
| BCF other aquatic organisms 2 | 18000 (BCF; 192 h) |
| Log Pow | 5.61 - 5.79 |
| Bioaccumulative potential | High potential for bioaccumulation (BCF > 5000). |

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|--|---|
| benzo[a]pyrene (50-32-8) | |
| BCF fish 1 | 480 (BCF; 72 h) |
| BCF fish 2 | 70.7 (BCF; 168 h; Salmo salar) |
| BCF other aquatic organisms 1 | 3000 (BCF; 192 h) |
| BCF other aquatic organisms 2 | 1.5 (BCF; 24 h) |
| Log Pow | 5.97 - 6.06 |
| Bioaccumulative potential | High potential for bioaccumulation (Log Kow > 5). |
| Benzo(b)fluoranthene (205-99-2) | |
| BCF other aquatic organisms 1 | 2800 (BCF; 168 h) |
| Log Pow | 6.57 |
| Bioaccumulative potential | High potential for bioaccumulation (Log Kow > 5). |
| benzo(ghi)perylene (191-24-2) | |
| Log Pow | 6.51 - 7.23 (Calculated) |
| Bioaccumulative potential | Bioaccumable. |
| benzo[k]fluoranthene (207-08-9) | |
| BCF fish 1 | 8750 (BCF) |
| BCF other aquatic organisms 1 | 0.0013 mg/kg (BCF) |
| BCF other aquatic organisms 2 | 37000 (BCF) |
| Log Pow | 6.84 |
| Bioaccumulative potential | High potential for bioaccumulation (BCF > 5000). |
| chrysene (218-01-9) | |
| BCF other aquatic organisms 1 | 4440 (BCF) |
| Log Pow | 5.81 - 5.86 (Experimental value) |
| Bioaccumulative potential | High potential for bioaccumulation (Log Kow > 5). |
| dibenz(a,h)anthracene (53-70-3) | |
| Log Pow | 5.97 - 6.84 |
| fluoranthene (206-44-0) | |
| BCF fish 1 | 3981 (BCF) |
| BCF fish 2 | 6110 (BCF) |
| BCF other aquatic organisms 1 | 10000 (BCF; 192 h) |
| BCF other aquatic organisms 2 | 695 (BCF; 48 h) |
| Log Pow | 5.33 |
| Bioaccumulative potential | High potential for bioaccumulation (BCF > 5000). |
| fluorene (86-73-7) | |
| BCF fish 1 | 2230 (BCF) |
| BCF fish 2 | 219 - 830 (BCF) |
| Log Pow | 4.12 - 4.67 |
| Bioaccumulative potential | Potential for bioaccumulation (500 ≤ BCF ≤ 5000). |
| indeno(1,2,3-cd)pyrene (193-39-5) | |
| BCF other aquatic organisms 1 | 10000 (BCF; 240 h) |
| Log Pow | 6.6 - 7.7 |
| Bioaccumulative potential | High potential for bioaccumulation (BCF > 5000). |
| naphthalene (91-20-3) | |
| BCF fish 1 | 23 - 168 (BCF; 8 weeks; Cyprinus carpio) |
| Log Pow | 3.3 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| 1-methylnaphthalene (90-12-0) | |
| BCF fish 1 | 20 (BCF; 5 weeks) |
| BCF fish 2 | 113-2000,BCF; 1 - 2 weeks |
| Log Pow | 3.87 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |
| 2-methylnaphthalene (91-57-6) | |
| BCF fish 1 | 407 (BCF; 624 h; Lepomis macrochirus) |
| BCF fish 2 | 190 (BCF; 840 h; Oncorhynchus kisutch) |
| Log Pow | 3.86 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

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| phenanthrene (85-01-8) | |
|-------------------------------|--|
| BCF fish 1 | 5100 (BCF; 672 h; Pimephales promelas) |
| BCF fish 2 | 2630 (BCF) |
| BCF other aquatic organisms 1 | 1760 (BCF) |
| BCF other aquatic organisms 2 | 325 (BCF; 24 h) |
| Log Pow | 4.46 |
| Bioaccumulative potential | High potential for bioaccumulation (BCF > 5000). |

| pyrene (129-00-0) | |
|-------------------------------|---|
| BCF fish 1 | 600 - 970 (BCF) |
| BCF fish 2 | 4810 (BCF) |
| BCF other aquatic organisms 1 | 2692 (BCF) |
| Log Pow | 4.88 - 5.32 |
| Bioaccumulative potential | High potential for bioaccumulation (Log Kow > 5). |

| Methylene Chloride (75-09-2) | |
|-------------------------------------|--|
| BCF fish 1 | 2 - 40 (BCF) |
| Log Pow | 1.25 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

12.4. Mobility in soil

| naphthalene (91-20-3) | |
|------------------------------|-------------------|
| Surface tension | 0.03 N/m (100 °C) |

| 1-methylnaphthalene (90-12-0) | |
|--------------------------------------|----------|
| Log Koc | Koc,2300 |

| phenanthrene (85-01-8) | |
|-------------------------------|-------------------|
| Ecology - soil | Soil contaminant. |

| Methylene Chloride (75-09-2) | |
|-------------------------------------|---|
| Surface tension | 0.028 N/m (20 °C) |
| Ecology - soil | May be harmful to plant growth, blooming and fruit formation. |

12.5. Results of PBT and vPvB assessment

| Component | |
|--------------------------|---|
| anthracene (120-12-7) | This substance/mixture meets the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| benzo[a]pyrene (50-32-8) | This substance/mixture meets the PBT criteria of REACH regulation, annex XIII This substance/mixture meets the vPvB criteria of REACH regulation, annex XIII |

12.6. Other adverse effects

Additional information : Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR) : 3082
UN-No. (IATA) : 3082
UN-No. (IMDG) : 3082
UN-No. (ADN) : 3082

14.2. UN proper shipping name

Proper Shipping Name (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s.
Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (ADN) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport document description (ADR) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, (E)

14.3. Packing group

Class (ADR) : 9

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Classification code (ADR) : M6
Class (IATA) : 9
Class (IMDG) : 9
Class (ADN) : 9
Classification code (ADN) : M6
Danger labels (ADR) : 9



Hazard labels (IATA) : 9



Danger labels (IMDG) : 9



Danger labels (ADN) : 9



14.4. Packing group

Packing group (ADR) : III
Packing group (IATA) : III
Packing group (IMDG) : III
Packing group (ADN) : III

14.5. Environmental hazards

Dangerous for the environment :



Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 90
Classification code (ADR) : M6
Orange plates :



Special provisions (ADR) : 274, 335, 601, 375
Transport category (ADR) : 3
Tunnel restriction code (ADR) : E
Limited quantities (ADR) : 5L
Excepted quantities (ADR) : E1

14.6.2. Transport by sea

Special provisions (IMDG) : 274, 335, 969
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
Special packing provisions (IMDG) : PP1

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| | |
|---------------------------------|-------------|
| IBC packing instructions (IMDG) | : IBC03 |
| Tank instructions (IMDG) | : T4 |
| Tank special provisions (IMDG) | : TP2, TP29 |
| EmS-No. (Fire) | : F-A |
| EmS-No. (Spillage) | : S-F |
| Stowage category (IMDG) | : A |

14.6.3. Air transport

| | |
|--|-------------------|
| CAO packing instructions (IATA) | : 964 |
| CAO max net quantity (IATA) | : 450L |
| PCA packing instructions (IATA) | : 964 |
| PCA Limited quantities (IATA) | : Y964 |
| PCA limited quantity max net quantity (IATA) | : 30kgG |
| PCA max net quantity (IATA) | : 450L |
| PCA Excepted quantities (IATA) | : E1 |
| Special provisions (IATA) | : A97, A158, A197 |
| ERG code (IATA) | : 9L |

14.6.4. Inland waterway transport

| | |
|-----------------------------------|----------------------|
| 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 |
| Carriage prohibited (ADN) | : No |

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains a substance on the REACH candidate list in concentration $\geq 0.1\%$ or with a lower specific limit: Anthracene (EC 204 -371-1, CAS 120-12-7), Benzo[def]chrysene (EC 200-028-5, CAS 50-32-8)

Contains no REACH Annex XIV 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

| | |
|-------------------|---|
| Data sources | : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. |
| Other information | : None. |

PHV SDS EU

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