

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

1.1. Product identifier

Product form : Mixture
Product name : PAH Standard
Product code : AL0-101236
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

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

Hazard pictograms (CLP) :



GHS07

GHS08

GHS09

Signal word (CLP) : Danger

Hazardous ingredients : benzo[a]anthracene, benzo[a]pyrene, Benzo(b)fluoranthene, benzo[k]fluoranthene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, Methylene Chloride

PAH Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

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)	: P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area P273 - Avoid release to the environment P280 - Wear protective gloves/protective clothing/eye protection/face protection P308+P313 - IF exposed or concerned: Get medical advice/attention P403+P235 - Store in a well-ventilated place. Keep cool P405 - Store locked up
EUH phrases	: EUH208 - Contains benzo[a]pyrene(50-32-8), phenanthrene(85-01-8). May produce an allergic reaction
No labeling applicable	

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

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	96.8	Carc. 2, H351
acenaphthene (Component)	(CAS No) 83-32-9 (EC no) 201-469-6	0.2	Eye Irrit. 2, H319 Aquatic Chronic 2, H411
acenaphthylene (Component)	(CAS No) 208-96-8 (EC no) 205-917-1	0.2	Acute Tox. 1 (Dermal), H310
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)
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[a]pyrene (Component)	(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(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 (M=10) Aquatic Chronic 1, H410 (M=10)
benzo(ghi)perylene (Component)	(CAS No) 191-24-2 (EC no) 205-883-8	0.2	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
benzo[k]fluoranthene (Component)	(CAS No) 207-08-9 (EC no) 205-916-6 (EC index no) 601-036-00-5	0.2	Carc. 1B, H350 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
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 Aquatic Chronic 1, H410
dibenz(a,h)anthracene (Component)	(CAS No) 53-70-3 (EC no) 200-181-8 (EC index no) 601-041-00-2	0.2	Carc. 1B, H350 Aquatic Acute 1, H400 (M=100) 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)
fluorene (Component)	(CAS No) 86-73-7 (EC no) 201-695-5	0.2	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
indeno(1,2,3-cd)pyrene (Component)	(CAS No) 193-39-5 (EC no) 205-893-2	0.2	Carc. 1B, H350
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

PAH Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
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
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)
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 : Allow victim to breathe fresh air. 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 persist.
- 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/injuries 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 : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

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 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.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

PAH Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

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 vapor. 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 products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. 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
- Color : Colorless.
- Odor : characteristic.
- pH : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : Non flammable
- Relative density : No data available
- Solubility : No data available
- Explosive properties : No data available
- Oxidizing properties : No data available
- Explosion limits : No data available

9.2. Other information

No additional information available

PAH Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

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

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

PAH Standard	
ATE CLP (dermal)	1100.000 mg/kg body weight
acenaphthene (83-32-9)	
LD50 oral rat	> 5000 mg/kg (Rat)
acenaphthylene (208-96-8)	
ATE CLP (dermal)	5.000 mg/kg body weight
anthracene (120-12-7)	
LD50 oral rat	> 16000 mg/kg (Rat)
fluoranthene (206-44-0)	
LD50 oral rat	2000 mg/kg (Rat)
LD50 dermal rabbit	3180 mg/kg (Rabbit)
ATE CLP (oral)	2000.000 mg/kg body weight
ATE CLP (dermal)	3180.000 mg/kg body weight
naphthalene (91-20-3)	
LD50 oral rat	> 1100 mg/kg (Rat)
LD50 dermal rat	> 2500 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)
ATE CLP (oral)	500.000 mg/kg body weight
phenanthrene (85-01-8)	
LD50 oral rat	1800 mg/kg (Rat)
ATE CLP (oral)	1800.000 mg/kg body weight
pyrene (129-00-0)	
LD50 oral rat	2700 mg/kg (Rat)
ATE CLP (oral)	2700.000 mg/kg body weight
Methylene Chloride (75-09-2)	
LD50 oral rat	> 2000 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Literature study)

Skin corrosion/irritation	: Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitization	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: May cause genetic defects.
Carcinogenicity	: May cause cancer. May cause cancer
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met

PAH Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (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.

acenaphthene (83-32-9)	
EC50 Daphnia 1	3.45 mg/l (48 h; Daphnia magna)
anthracene (120-12-7)	
LC50 fish 1	0.36 mg/l (24 h; Pimephales promelas)
EC50 Daphnia 1	0.754 mg/l (48 h; Daphnia pulex; Locomotor effect)
LC50 fish 2	0.00127 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 2	0.0012 mg/l (24 h; Daphnia magna)
Threshold limit algae 1	< 0.003 mg/l (22 h; Selenastrum capricornutum)
benzo[a]anthracene (56-55-3)	
LC50 fish 1	0.0018 mg/l (65 h; Pimephales promelas; Lethal)
EC50 Daphnia 1	0.01 mg/l (96 h; Daphnia pulex; Static system)
Threshold limit algae 1	0.003 mg/l (Cyanophyta)
benzo[a]pyrene (50-32-8)	
LC50 fish 1	0.0056 mg/l (38 h; Pimephales promelas; Lethal)
LC50 other aquatic organisms 1	> 6.7 mg/l (24 h; Rana sp.)
EC50 other aquatic organisms 1	0.005 - 4 mg/l (72 h; Chlorophyta; Growth)
LC50 fish 2	1.2 - 3.7 mg/l (24 h; Poeciliopsis sp.; Lethal)
Threshold limit other aquatic organisms 1	> 6.7 mg/l (24 h; Rana sp.)
Threshold limit algae 1	0.015 mg/l (72 h; Selenastrum capricornutum; Growth)
Benzo(b)fluoranthene (205-99-2)	
LC50 fish 1	0.03 mg/l (96 h; Pimephales promelas)
Threshold limit algae 1	0.004 mg/l (Algae)
benzo[k]fluoranthene (207-08-9)	
LC50 fish 1	0.03 mg/l (96 h; Pimephales promelas)
Threshold limit algae 1	0.004 mg/l (Algae)
chrysene (218-01-9)	
LC50 other aquatic organisms 1	> 6.7 mg/l (24 h; Rana sp.)
TLM other aquatic organisms 1	1 mg/l (96 h; Annelida)
Threshold limit other aquatic organisms 1	> 6.7 mg/l (24 h; Rana sp.)
Threshold limit algae 1	0.001 mg/l (Cyanophyta; Growth)
dibenz(a,h)anthracene (53-70-3)	
LC50 fish 1	0.01 mg/l (96 h; Pimephales promelas)
LC50 other aquatic organisms 1	< 83.5 mg/l (60 h; Protozoa)
EC50 other aquatic organisms 1	0.3 mg/l (148 h; Rhodophyta; Inhibitory)
TLM other aquatic organisms 1	> 1 ppm (96 h; Neanthes arenaceodentata)
Threshold limit other aquatic organisms 1	< 83.5 mg/l (60 h; Protozoa)
Threshold limit algae 1	0.001 mg/l (Algae)
fluoranthene (206-44-0)	
LC50 fish 1	0.0077 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 1	< 0.1 mg/l (72 h; Daphnia magna; Locomotor effect)
EC50 other aquatic organisms 1	45 mg/l (96 h; Skeletonema costatum)
LC50 fish 2	4 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 2	0.78 mg/l (20 h; Daphnia magna; Locomotor effect)
Threshold limit algae 1	54 mg/l (96 h; Selenastrum capricornutum)

PAH Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

fluorene (86-73-7)	
LC50 fish 1	3.17 mg/l (96 h; <i>Pimephales promelas</i>)
EC50 Daphnia 1	0.212 mg/l (48 h; <i>Daphnia magna</i>)
LC50 fish 2	5.15 mg/l (48 h; <i>Oryzias latipes</i>)
Threshold limit algae 1	1.7 mg/l (<i>Chlorophyta</i>)
naphthalene (91-20-3)	
LC50 fish 1	1.99 mg/l (96 h; <i>Pimephales promelas</i>)
EC50 Daphnia 1	2.16 mg/l (48 h; <i>Daphnia magna</i>)
EC50 other aquatic organisms 1	2.96 mg/l (4 h; <i>Selenastrum capricornutum</i>)
LC50 fish 2	0.11 mg/l (96 h; <i>Oncorhynchus mykiss</i>)
TLM fish 1	150 mg/l (96 h; <i>Lepomis macrochirus</i> ; Cool water)
TLM fish 2	1.24 ppm (96 h; <i>Oncorhynchus gorboscha</i>)
Threshold limit algae 1	0.4 mg/l (72 h; <i>Skeletonema costatum</i> ; Growth rate)
phenanthrene (85-01-8)	
EC50 Daphnia 1	0.7 mg/l (48 h; <i>Daphnia pulex</i> ; Locomotor effect)
EC50 other aquatic organisms 1	6500 mg/l (3 h; <i>Chlorella vulgaris</i>)
EC50 Daphnia 2	0.35 mg/l (48 h; <i>Daphnia pulex</i>)
Threshold limit algae 1	0.9 mg/l (4 h; <i>Selenastrum capricornutum</i>)
pyrene (129-00-0)	
LC50 fish 1	0.0256 mg/l (3.1 h; <i>Pimephales promelas</i>)
EC50 other aquatic organisms 1	1.6 mg/l (3 h; <i>Chlorella vulgaris</i>)
LC50 fish 2	0.0026 mg/l (96 h; <i>Gambusia affinis</i>)
TLM fish 1	0.0026 mg/l (96 h; <i>Gambusia affinis</i>)
Threshold limit algae 1	1.1 mg/l (3 h; <i>Chlamydomonas angulosa</i>)
Methylene Chloride (75-09-2)	
LC50 fish 1	193 mg/l (96 h; <i>Pimephales promelas</i> ; Flow-through system)
EC50 Daphnia 1	168.2 mg/l (48 h; <i>Daphnia magna</i>)
LC50 fish 2	220 mg/l (96 h; <i>Lepomis macrochirus</i> ; Flow-through system)
Threshold limit algae 1	1450 mg/l (192 h; <i>Scenedesmus quadricauda</i> ; Cell numbers)
Threshold limit algae 2	550 mg/l (192 h; <i>Microcystis aeruginosa</i>)

12.2. Persistence and degradability

PAH Standard	
Persistence and degradability	Not established.
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.
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 % ThOD
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.

PAH Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

benzo(ghi)perylene (191-24-2)	
ThOD	2.90 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
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	2.90 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
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	
PAH Standard	
Bioaccumulative potential	Not established.
acenaphthene (83-32-9)	
BCF fish 1	257 - 1270 (Cyprinus carpio; Test duration: 8 weeks)
BCF fish 2	387 (28 days; Lepomis macrochirus)
Log Pow	3.92 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).
acenaphthylene (208-96-8)	
Bioaccumulative potential	No bioaccumulation data available.
anthracene (120-12-7)	
BCF fish 1	903 - 2820 (Cyprinus carpio; Test duration: 8 weeks)
BCF fish 2	9200 Salmo gairdneri (Oncorhynchus mykiss)
BCF other aquatic organisms 1	7770 (24 h; Chlorella sp.; Fresh weight)
BCF other aquatic organisms 2	10500 (Selenastrum capricornutum)
Log Pow	4.5
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
benzo[a]anthracene (56-55-3)	
BCF fish 1	350 (72 h; Leuciscus idus)
BCF other aquatic organisms 1	1106 (24 h; Daphnia pulex)
BCF other aquatic organisms 2	18000 (192 h; Crassostrea sp.)
Log Pow	5.61 - 5.79
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).

PAH Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

benzo[a]pyrene (50-32-8)	
BCF fish 1	480 (72 h; Leuciscus idus)
BCF fish 2	70.7 (168 h; Salmo salar; Eggs)
BCF other aquatic organisms 1	3000 (192 h; Crassostrea sp.)
BCF other aquatic organisms 2	1.5 (24 h; Daphnia magna)
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 (168 h; Lamellibranchiata)
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 (Pisces; QSAR)
BCF other aquatic organisms 1	0.0013 mg/kg (Algae; Dry weight)
BCF other aquatic organisms 2	37000 (Mytilus edulis)
Log Pow	6.84
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
chrysene (218-01-9)	
BCF other aquatic organisms 1	4440 (Lamellibranchiata; Chronic)
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 (Pimephales promelas)
BCF fish 2	6110 (Lepomis macrochirus)
BCF other aquatic organisms 1	10000 (192 h; Ostreidae)
BCF other aquatic organisms 2	695 (48 h; Ostreidae)
Log Pow	5.33
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
fluorene (86-73-7)	
BCF fish 1	2230 (Poecilia reticulata)
BCF fish 2	219 - 830 (Cyprinus carpio; Test duration: 8 weeks)
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 (240 h; Amphipoda)
Log Pow	6.6 - 7.7
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
naphthalene (91-20-3)	
BCF fish 1	23 - 168 (8 weeks; Cyprinus carpio)
BCF fish 2	40 - 300 (672 h; Oncorhynchus mykiss)
BCF other aquatic organisms 1	331 (360 h; Ostreidae)
BCF other aquatic organisms 2	130 (24 h; Chlorella sp.)
Log Pow	3.30 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
phenanthrene (85-01-8)	
BCF fish 1	5100 (672 h; Pimephales promelas; Young)
BCF fish 2	2630 (Pisces)
BCF other aquatic organisms 1	1760 (Chlorella sp.)
BCF other aquatic organisms 2	325 (24 h; Daphnia pulex)
Log Pow	4.46
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
pyrene (129-00-0)	
BCF fish 1	600 - 970 (Pimephales promelas)

PAH Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

pyrene (129-00-0)	
BCF fish 2	4810 (Poecilia reticulata)
BCF other aquatic organisms 1	2692 (Daphnia pulex)
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 (Cyprinus carpio; Test duration: 6 weeks)
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)

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	
(120-12-7)	This substance/mixture meets the PBT criteria of REACH, annex XIII This substance/mixture does not meet the vPvB criteria of REACH, annex XIII

12.6. Other adverse effects

Additional information : Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste 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) : 2810
UN-No.(IATA) : 2810

14.2. UN proper shipping name

Proper Shipping Name (ADR) : TOXIC LIQUID, ORGANIC, N.O.S.
Proper Shipping Name (IATA) : TOXIC LIQUID, ORGANIC, N.O.S.
Proper Shipping Name (IMDG) : TOXIC LIQUID, ORGANIC, N.O.S.
Proper Shipping Name (ADN) : TOXIC LIQUID, ORGANIC, N.O.S.
Transport document description (ADR) : UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (dichloromethane(75-09-2)), 6.1, III, (D/E), ENVIRONMENTALLY HAZARDOUS

14.3. Packing group

Class (ADR) : 6.1
Classification code (ADR) : T1
Class (IATA) : 6.1
Class (IMDG) : 6.1
Class (ADN) : 6.1
Hazard labels (ADR) : 6.1



PAH Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Hazard labels (IATA) : 6.1



14.4. Packing group

Packing group (ADR) : III
Packing group (IATA) : 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.) : 60
Classification code (ADR) : T1
Orange plates :



Special provision (ADR) : 274, 614
Transport category (ADR) : 2
Tunnel restriction code (ADR) : D/E
Limited quantities (ADR) : 100ml
Excepted quantities (ADR) : E4

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

CAO packing instructions (IATA) : 663
CAO max net quantity (IATA) : 220L
PCA packing instructions (IATA) : 655
PCA Limited quantities (IATA) : Y642
PCA limited quantity max net quantity (IATA) : 2L
PCA max net quantity (IATA) : 60L
PCA Excepted quantities (IATA) : E1
Special provision (IATA) : A137
ERG code (IATA) : 6L

14.6.4. Inland waterway transport

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 substances with Annex XVII restrictions

Contains substance on the candidate list in concentration $\geq 0.1\%$ or with a lower specific limit: Anthracene (EC 204-371-1, CAS 120-12-7)

Contains no REACH Annex XIV substances.

15.1.2. National regulations

No additional information available

PAH Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

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

Other information : None.

PHV SDS EU

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