

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

1.1. Product identifier

Product form : Mixture
Product name : BTEX Standard
Product code : AL0-101203
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
Use of the substance/mixture : Certified reference material for laboratory 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]

Flam. Liq. 2 H225
Acute Tox. 3 (Oral) H301
Acute Tox. 3 (Dermal) H311
Muta. 1B H340
Carc. 1A H350
STOT SE 1 H370

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

Carc.Cat.1; R45
Muta.Cat.2; R46
F; R11
T; R23/24/25
T; R39/23/24/25

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) :



GHS02

GHS06

GHS08

Signal word (CLP) : Danger

BTEX Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

| | |
|--------------------------------|---|
| Hazardous ingredients | : benzene, methanol |
| Hazard statements (CLP) | : H225 - Highly flammable liquid and vapor H301+H311 - Toxic if swallowed or in contact with skin H340 - May cause genetic defects H350 - May cause cancer H370 - Causes damage to organs |
| Precautionary statements (CLP) | : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking P233 - Keep container tightly closed P260 - Do not breathe dust, fume, gas, mist, spray, vapors P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area 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 |

No labeling applicable

2.3. Other hazards

No additional information available

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] |
|--|--|--|---|
| methanol (Component) | (CAS No) 67-56-1 (EC no) 200-659-6 (EC index no) 603-001-00-X | 98.8 | Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370 |
| benzene (Component) | (CAS No) 71-43-2 (EC no) 200-753-7 (EC index no) 601-020-00-8 | 0.2 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 1B, H340 Carc. 1A, H350 STOT RE 1, H372 Asp. Tox. 1, H304 |
| toluene (Component) | (CAS No) 108-88-3 (EC no) 203-625-9 (EC index no) 601-021-00-3 | 0.2 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 |
| ethylbenzene (Component) substance with a Community workplace exposure limit | (CAS No) 100-41-4 (EC no) 202-849-4 (EC index no) 601-023-00-4 | 0.2 | Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304 |
| m-xylene (Component) substance with a Community workplace exposure limit | (CAS No) 108-38-3 (EC no) 203-576-3 (EC index no) 601-022-00-9 | 0.2 | Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 |
| o-xylene (Component) substance with a Community workplace exposure limit | (CAS No) 95-47-6 (EC no) 202-422-2 (EC index no) 601-022-00-9 | 0.2 | Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 |
| p-xylene (Component) substance with a Community workplace exposure limit | (CAS No) 106-42-3 (EC no) 203-396-5 (EC index no) 601-022-00-9 | 0.2 | Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 |
| Name | Product identifier | Specific concentration limits | |
| methanol (Component) | (CAS No) 67-56-1 (EC no) 200-659-6 (EC index no) 603-001-00-X | (3 =< C < 10) STOT SE 2, H371 (C >= 10) STOT SE 1, H370 | |

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. Call a POISON CENTER or doctor/physician. IF exposed or concerned: Get medical advice/attention. |
| First-aid measures after inhalation | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. |

BTEX Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

| | |
|---------------------------------------|---|
| First-aid measures after skin contact | : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. 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 | : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking or redness persist. |
| First-aid measures after ingestion | : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Immediately call a poison center or doctor/physician. |

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

| | |
|--------------------------------------|---|
| Symptoms/injuries after inhalation | : May cause cancer by inhalation. |
| Symptoms/injuries after skin contact | : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin. |
| Symptoms/injuries after ingestion | : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard. |

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

| | |
|------------------|---|
| Fire hazard | : Highly flammable liquid and vapor. |
| Explosion hazard | : May form flammable/explosive vapor-air mixture. |

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. Avoid breathing dust/fume/gas/mist/vapors/spray. |
| Emergency procedures | : Ventilate area. |

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-----------------------------------|---|
| Additional hazards when processed | : Handle empty containers with care because residual vapors are flammable. |
| 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. No open flames. No smoking. Use only non-sparking tools. 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 | : Do not eat, drink or smoke when using this product. 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

| | |
|-----------------------|---|
| Technical measures | : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. |
| Storage conditions | : Keep in fireproof place. Keep container tightly closed. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source. |
| Incompatible products | : Strong bases. Strong acids. |

BTEX Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

benzene (71-43-2)

| | | |
|----------|--------------------------|--------|
| USA OSHA | OSHA PEL (TWA) (ppm) | 10 ppm |
| USA OSHA | OSHA PEL (Ceiling) (ppm) | 25 ppm |

8.2. Exposure controls

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

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



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 : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

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) | : Highly flammable liquid and vapor |
| 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

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established. Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

BTEX Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin.

| BTEX Standard | |
|--------------------------------|--|
| ATE CLP (oral) | 100.000 mg/kg body weight |
| ATE CLP (dermal) | 300.000 mg/kg body weight |
| benzene (71-43-2) | |
| LD50 oral rat | > 930 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; > 2000 mg/kg bodyweight; Rat; Experimental value) |
| LD50 dermal rabbit | > 8240 mg/kg (Rabbit; Experimental value; 21 CFR 191.10; > 9.4; Rabbit) |
| LC50 inhalation rat (mg/l) | 43.767 mg/l/4h (Rat; Experimental value) |
| LC50 inhalation rat (ppm) | 13700 ppm/4h (Rat; Experimental value) |
| ATE CLP (gases) | 13700.000 ppmV/4h |
| ATE CLP (vapors) | 43.767 mg/l/4h |
| ATE CLP (dust, mist) | 43.767 mg/l/4h |
| toluene (108-88-3) | |
| LD50 oral rat | > 2000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 5580 mg/kg bodyweight; Rat; Experimental value) |
| LD50 dermal rabbit | 12223 mg/kg (Rabbit; Literature study; Other; >5000 mg/kg bodyweight; Rabbit; Experimental value) |
| LC50 inhalation rat (mg/l) | > 20 mg/l/4h (Rat; Literature study) |
| ATE CLP (dermal) | 12223.000 mg/kg body weight |
| ethylbenzene (100-41-4) | |
| LD50 oral rat | 3500 mg/kg (Rat; Other; Experimental value) |
| LD50 dermal rabbit | 15415 mg/kg (Rabbit; Literature study; Other; 15432 mg/kg; Rabbit; Experimental value) |
| LC50 inhalation rat (mg/l) | 17.8 mg/l/4h (Rat; Literature study) |
| LC50 inhalation rat (ppm) | 4000 ppm/4h (Rat; Literature study) |
| ATE CLP (oral) | 3500.000 mg/kg body weight |
| ATE CLP (dermal) | 15415.000 mg/kg body weight |
| ATE CLP (gases) | 4000.000 ppmV/4h |
| ATE CLP (vapors) | 17.800 mg/l/4h |
| ATE CLP (dust, mist) | 1.500 mg/l/4h |
| m-xylene (108-38-3) | |
| LD50 oral rat | 5011 - 6630 mg/kg (Rat) |
| ATE CLP (oral) | 5011.000 mg/kg body weight |
| ATE CLP (dermal) | 1100.000 mg/kg body weight |
| ATE CLP (gases) | 4500.000 ppmV/4h |
| ATE CLP (vapors) | 11.000 mg/l/4h |
| ATE CLP (dust, mist) | 1.500 mg/l/4h |
| o-xylene (95-47-6) | |
| LD50 oral rat | 3608 mg/kg (Rat) |
| ATE CLP (oral) | 3608.000 mg/kg body weight |
| ATE CLP (dermal) | 1100.000 mg/kg body weight |
| ATE CLP (gases) | 4500.000 ppmV/4h |
| ATE CLP (vapors) | 11.000 mg/l/4h |
| ATE CLP (dust, mist) | 1.500 mg/l/4h |
| p-xylene (106-42-3) | |
| LD50 oral rat | 4030 mg/kg (Rat) |
| LC50 inhalation rat (mg/l) | 20 mg/l/4h (Rat) |
| LC50 inhalation rat (ppm) | 4740 ppm/4h (Rat) |
| ATE CLP (oral) | 4030.000 mg/kg body weight |
| ATE CLP (dermal) | 1100.000 mg/kg body weight |
| ATE CLP (gases) | 4740.000 ppmV/4h |
| ATE CLP (vapors) | 20.000 mg/l/4h |

BTEX Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

| p-xylene (106-42-3) | |
|---|--|
| ATE CLP (dust, mist) | 1.500 mg/l/4h |
| methanol (67-56-1) | |
| LD50 oral rat | > 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence) |
| LD50 dermal rabbit | 15800 mg/kg (Rabbit; Literature study) |
| LC50 inhalation rat (mg/l) | 85 mg/l/4h (Rat; Literature study) |
| LC50 inhalation rat (ppm) | 64000 ppm/4h (Rat; Literature study) |
| ATE CLP (oral) | 100.000 mg/kg body weight |
| ATE CLP (dermal) | 300.000 mg/kg body weight |
| ATE CLP (gases) | 700.000 ppmV/4h |
| ATE CLP (vapors) | 3.000 mg/l/4h |
| ATE CLP (dust, mist) | 0.500 mg/l/4h |
| 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 by inhalation May cause cancer |
| Reproductive toxicity | : Not classified Based on available data, the classification criteria are not met |
| Specific target organ toxicity (single exposure) | : Causes damage to organs. |
| 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 | : Toxic if swallowed. Toxic in contact with skin. |

SECTION 12: Ecological information

12.1. Toxicity

| benzene (71-43-2) | |
|--------------------------------|--|
| LC50 fish 1 | 5.3 mg/l 96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>) |
| EC50 Daphnia 1 | 18 mg/l (24 h; <i>Daphnia magna</i>) |
| LC50 fish 2 | 15.1 mg/l (96 h; <i>Pimephales promelas</i>) |
| EC50 Daphnia 2 | 10 mg/l (48 h; <i>Daphnia magna</i>) |
| TLM fish 1 | 22.5 mg/l (96 h; <i>Lepomis macrochirus</i> ; Soft water) |
| TLM fish 2 | 32 mg/l (96 h; <i>Pimephales promelas</i> ; Hard water) |
| Threshold limit algae 1 | 100 mg/l (72 h; <i>Pseudokirchneriella subcapitata</i> ; GLP) |
| Threshold limit algae 2 | 50 mg/l (24 h; <i>Phaeodactylum</i> ; Photosynthesis) |
| toluene (108-88-3) | |
| LC50 fish 1 | 24 mg/l 96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>) |
| EC50 Daphnia 1 | 84 mg/l (24 h; <i>Daphnia magna</i> ; Locomotor effect) |
| LC50 fish 2 | 13 mg/l (96 h; <i>Lepomis macrochirus</i>) |
| EC50 Daphnia 2 | 11.5 - 19.6 mg/l (48 h; <i>Daphnia magna</i>) |
| Threshold limit algae 1 | > 400 mg/l (168 h; <i>Scenedesmus quadricauda</i> ; Toxicity test) |
| Threshold limit algae 2 | 105 mg/l (192 h; <i>Microcystis aeruginosa</i>) |
| ethylbenzene (100-41-4) | |
| LC50 fish 1 | 9.09 mg/l (96 h; <i>Pimephales promelas</i>) |
| EC50 Daphnia 1 | 77 mg/l (24 h; <i>Daphnia magna</i>) |
| EC50 other aquatic organisms 1 | 48 mg/l (72 h; <i>Scenedesmus subspicatus</i>) |
| LC50 fish 2 | 4.2 mg/l 96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>) |
| EC50 Daphnia 2 | 75 mg/l (48 h; <i>Daphnia magna</i>) |
| TLM fish 1 | 29 ppm (96 h; <i>Lepomis macrochirus</i> ; Hard water) |

BTEX Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

| | |
|---|--|
| ethylbenzene (100-41-4) | |
| TLM fish 2 | 42.3 mg/l (96 h; Pimephales promelas) |
| TLM other aquatic organisms 1 | 10 - 100,96 h |
| Threshold limit algae 1 | > 160 mg/l (192 h; Scenedesmus quadricauda; Toxicity test) |
| Threshold limit algae 2 | 33 mg/l (192 h; Microcystis aeruginosa; Toxicity test) |
| m-xylene (108-38-3) | |
| LC50 fish 1 | 13 mg/l (96 h; Poecilia reticulata; Growth) |
| EC50 Daphnia 1 | 4.7 mg/l (48 h; Daphnia magna) |
| LC50 fish 2 | 8.4 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss) |
| TLM fish 1 | 22 ppm (96 h; Lepomis macrochirus) |
| Threshold limit other aquatic organisms 1 | > 160 mg/l (Pseudomonas putida; No specific isomer) |
| Threshold limit algae 2 | > 160 mg/l (Scenedesmus quadricauda; No specific isomer) |
| o-xylene (95-47-6) | |
| LC50 fish 1 | 12 mg/l (96 h; Poecilia reticulata) |
| EC50 Daphnia 1 | 3.820 mg/l (48 h; Daphnia magna; Locomotor effect) |
| EC50 other aquatic organisms 1 | 4.7 mg/l (72 h; Selenastrum capricornutum; Growth) |
| LC50 fish 2 | 8.05 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss) |
| EC50 Daphnia 2 | 3.2 mg/l (48 h; Daphnia magna; Static system) |
| Threshold limit algae 1 | > 160 mg/l (Scenedesmus quadricauda; No specific isomer) |
| p-xylene (106-42-3) | |
| LC50 fish 1 | 2.6 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss) |
| EC50 Daphnia 1 | 3.6 mg/l (24 h; Daphnia magna) |
| EC50 other aquatic organisms 1 | 50 mg/l (Chlamydomonas angulosa; Photosynthesis) |
| LC50 fish 2 | 8.8 mg/l (96 h; Poecilia reticulata) |
| EC50 Daphnia 2 | 1.4 mg/l (48 h; Daphnia magna) |
| TLM fish 1 | 29 mg/l (96 h; Pimephales promelas) |
| TLM fish 2 | 20.9 mg/l (96 h; Lepomis macrochirus) |
| Threshold limit algae 2 | > 160 mg/l (Scenedesmus quadricauda; No specific isomer) |
| methanol (67-56-1) | |
| LC50 fish 1 | 15400 mg/l (96 h; Lepomis macrochirus; Lethal) |
| EC50 Daphnia 1 | > 10000 mg/l (48 h; Daphnia magna; Lethal) |
| LC50 fish 2 | 10800 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss) |
| EC50 Daphnia 2 | 24500 mg/l (48 h; Daphnia magna; Locomotor effect) |
| Threshold limit other aquatic organisms 1 | 6600 mg/l (16 h; Pseudomonas putida) |
| Threshold limit algae 1 | 530 mg/l (192 h; Microcystis aeruginosa) |
| Threshold limit algae 2 | 8000 mg/l (168 h; Scenedesmus quadricauda) |

12.2. Persistence and degradability

| | |
|---------------------------------|---|
| BTEX Standard | |
| Persistence and degradability | Not established. |
| benzene (71-43-2) | |
| Persistence and degradability | Readily biodegradable in water. Ozonation in water. Forming sediments in water. Biodegradable in the soil. Low potential for adsorption in soil. Photolysis in the air. |
| Biochemical oxygen demand (BOD) | 2.18 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 2.15 g O ₂ /g substance |
| ThOD | 3.10 g O ₂ /g substance |
| BOD (% of ThOD) | 0.70 % ThOD |
| toluene (108-88-3) | |
| Persistence and degradability | Readily biodegradable in water. easily degradable in the soil. |
| Biochemical oxygen demand (BOD) | 2.15 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 2.52 g O ₂ /g substance |
| ThOD | 3.13 g O ₂ /g substance |
| BOD (% of ThOD) | 0.69 % ThOD |
| ethylbenzene (100-41-4) | |
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil. |
| Biochemical oxygen demand (BOD) | 1.44 g O ₂ /g substance (20d.) |
| Chemical oxygen demand (COD) | 2.1 g O ₂ /g substance |
| ThOD | 3.17 g O ₂ /g substance |
| BOD (% of ThOD) | (20 day(s)) 45.4 |

BTEX Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

| | |
|--|--|
| m-xylene (108-38-3) | |
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Photolysis in the air. Photooxidation in the air. |
| Biochemical oxygen demand (BOD) | 2.53 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 2.63 g O ₂ /g substance |
| ThOD | 3.1 g O ₂ /g substance |
| o-xylene (95-47-6) | |
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Photodegradation in the air. |
| Biochemical oxygen demand (BOD) | 1.64 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 2.91 g O ₂ /g substance |
| ThOD | 3.125 g O ₂ /g substance |
| p-xylene (106-42-3) | |
| 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) | 1.40 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 2.56 g O ₂ /g substance |
| ThOD | 3.125 g O ₂ /g substance |
| methanol (67-56-1) | |
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. |
| Biochemical oxygen demand (BOD) | 0.6 - 1.12 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.42 g O ₂ /g substance |
| ThOD | 1.5 g O ₂ /g substance |
| BOD (% of ThOD) | 0.8 % ThOD |
| 12.3. Bioaccumulative potential | |
| BTEX Standard | |
| Bioaccumulative potential | Not established. |
| benzene (71-43-2) | |
| BCF fish 1 | 19 <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>) |
| BCF fish 2 | < 10 (3 days; <i>Leuciscus idus</i>) |
| BCF other aquatic organisms 1 | 30 (24 h; <i>Chlorella</i> sp.; Fresh weight) |
| Log Pow | 2.13 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| toluene (108-88-3) | |
| BCF fish 1 | 13.2 (<i>Anguilla japonica</i>) |
| BCF fish 2 | 90 (72 h; <i>Leuciscus idus</i>) |
| BCF other aquatic organisms 1 | 380 (24 h; <i>Chlorella</i> sp.; Fresh weight) |
| BCF other aquatic organisms 2 | 4.2 (<i>Mytilus edulis</i> ; Fresh weight) |
| Log Pow | 2.73 (Experimental value; Other; 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| ethylbenzene (100-41-4) | |
| BCF fish 1 | 1 (6 weeks; <i>Oncorhynchus kisutch</i>) |
| BCF fish 2 | 15 - 79 (<i>Carassius auratus</i>) |
| BCF other aquatic organisms 1 | 4.68 (<i>Lamellibranchiata</i>) |
| Log Pow | 3.15 (Experimental value; 3.6; Experimental value; EU Method A.8: Partition Coefficient; 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| m-xylene (108-38-3) | |
| BCF fish 1 | 15 (<i>Carassius auratus</i>) |
| BCF fish 2 | 24 (<i>Anguilla japonica</i>) |
| Log Pow | 3.20 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| o-xylene (95-47-6) | |
| BCF fish 1 | 21.4 (<i>Anguilla japonica</i>) |
| BCF fish 2 | 14.1 (<i>Carassius auratus</i>) |
| BCF other aquatic organisms 1 | 219 (<i>Selenastrum capricornutum</i>) |
| Log Pow | 3.12 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

BTEX Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

| | |
|----------------------------|--|
| p-xylene (106-42-3) | |
| BCF fish 1 | 15 (Carassius auratus) |
| BCF fish 2 | 23 (240 h; Anguilla japonica) |
| Log Pow | 3.15 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| | |
|---------------------------|--|
| methanol (67-56-1) | |
| BCF fish 1 | < 10 (72 h; Leuciscus idus) |
| BCF fish 2 | 1 (72 h; Cyprinus carpio; Blood) |
| Log Pow | -0.77 (Experimental value; Other) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

12.4. Mobility in soil

| | |
|--------------------------|-------------------|
| benzene (71-43-2) | |
| Surface tension | 0.029 N/m (20 °C) |

| | |
|---------------------------|------------------|
| toluene (108-88-3) | |
| Surface tension | 0.03 N/m (20 °C) |

| | |
|--------------------------------|-----------|
| ethylbenzene (100-41-4) | |
| Surface tension | 0.029 N/m |

| | |
|----------------------------|---|
| m-xylene (108-38-3) | |
| Ecology - soil | May be harmful to plant growth, blooming and fruit formation. |

| | |
|---------------------------|---|
| o-xylene (95-47-6) | |
| Surface tension | 0.003 N/m (25 °C) |
| Ecology - soil | May be harmful to plant growth, blooming and fruit formation. |

| | |
|----------------------------|---|
| p-xylene (106-42-3) | |
| Ecology - soil | May be harmful to plant growth, blooming and fruit formation. |

| | |
|---------------------------|-------------------|
| methanol (67-56-1) | |
| Surface tension | 0.023 N/m (20 °C) |

12.5. Results of PBT and vPvB assessment

No additional information available

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.
Additional information : Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR) : 1992
UN-No.(IATA) : 1992

14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE LIQUID, TOXIC, N.O.S.
Proper Shipping Name (IATA) : FLAMMABLE LIQUID, TOXIC, N.O.S.
Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, TOXIC, N.O.S.
Proper Shipping Name (ADN) : FLAMMABLE LIQUID, TOXIC, N.O.S.
Transport document description (ADR) : UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (methanol(67-56-1)), 3 (6.1), II, (D/E)

14.3. Packing group

Class (ADR) : 3
Classification code (ADR) : FT1
Class (IATA) : 3
Class (IMDG) : 3
Class (ADN) : 3
Subsidiary risks (ADR) : 6.1

BTEX Standard

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Hazard labels (ADR) : 3, 6.1



Hazard labels (IATA) : 3, 6.1



14.4. Packing group

Packing group (ADR) : II

Packing group (IATA) : II

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 336

Classification code (ADR) : FT1

Orange plates :



Special provision (ADR) : 274

Transport category (ADR) : 2

Tunnel restriction code (ADR) : D/E

Limited quantities (ADR) : 1I

Excepted quantities (ADR) : E2

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

CAO packing instructions (IATA) : 364

CAO max net quantity (IATA) : 60L

PCA packing instructions (IATA) : 352

PCA Limited quantities (IATA) : Y341

PCA limited quantity max net quantity (IATA) : 1L

PCA max net quantity (IATA) : 1L

PCA Excepted quantities (IATA) : E2

ERG code (IATA) : 3HP

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 no REACH candidate substance

Contains no REACH Annex XIV substances.

15.1.2. National regulations

No additional information available

BTEX 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.