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

Product information
Product Name: Benzene, Toluene, Xylene (BTX) / Hydrogenated Pygas (HPG)
Material: 1015406, 1037554

Company: Chevron Phillips Chemical Company LP
10001 Six Pines Drive
The Woodlands, TX 77380

Emergency telephone:
Health:
866.442.9628 (North America)
1.832.813.4984 (International)
Transport:
CHEMTREC 800.424.9300 or 703.527.3887(int'l)
Asia: +800 CHEMCALL (+800 2436 2255) China:+86-21-22157316
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

Responsible Department: Product Safety and Toxicology Group
E-mail address: SDS@CPChem.com
Website: www.CPChem.com

SECTION 2: Hazards identification

Classification of the substance or mixture
This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

Emergency Overview

Danger
Form: Liquid  Physical state: Liquid  Color: Colorless  Odor: Mild
OSHA Hazards: Flammable Liquid, Moderate skin irritant, Aspiration hazard, Carcinogen, Moderate respiratory irritant, Reproductive hazard, Mutagen, Specific target organ systemic toxicity - single exposure

Classification: Flammable liquids , Category 2

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SAFETY DATA SHEET

Benzene, Toluene, Xylene (BTX) / Hydrogenated Pygas (HPG)

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Skin irritation , Category 2
Germ cell mutagenicity , Category 1B
Carcinogenicity , Category 1A
Reproductive toxicity , Category 2
Specific target organ systemic toxicity - single exposure , Category 3 , Respiratory system, Central nervous system
Specific target organ systemic toxicity - repeated exposure , Category 1 , Blood, Eyes
Specific target organ systemic toxicity - repeated exposure , Category 2 , Auditory organs, Liver, Kidney, Nervous system
Specific target organ systemic toxicity - repeated exposure , Category 2 , Inhalation, Auditory organs
Aspiration hazard , Category 1

Labeling

Symbol(s) : 

Signal Word : Danger

Hazard Statements : 
H225: Highly flammable liquid and vapor.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H372: Causes damage to organs (Blood, Eyes, Auditory organs, Liver, Kidney, Nervous system) through prolonged or repeated exposure.
H373: May cause damage to organs (Auditory organs) through prolonged or repeated exposure if inhaled.

Precautionary Statements : Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces.
No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapor/spray.
P264 Wash skin thoroughly after handling.
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.

Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303 + P361 + P353 IF ON SKIN (or hair): Take off...

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immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312  IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P308 + P313  IF exposed or concerned: Get medical advice/attention.
P331  Do NOT induce vomiting.
P332 + P313  If skin irritation occurs: Get medical advice/attention.
P362  Take off contaminated clothing and wash before reuse.
P370 + P378  In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:
P403 + P233  Store in a well-ventilated place. Keep container tightly closed.
P403 + P235  Store in a well-ventilated place. Keep cool.
P405  Store locked up.

Disposal:
P501  Dispose of contents/container to an approved waste disposal plant.

Carcinogenicity:

IARC
Group 1: Carcinogenic to humans
Benzene  71-43-2
Group 2B: Possibly carcinogenic to humans
Hydrotreated Light Distillate  68410-97-9
Ethylbenzene  100-41-4
Naphthalene  91-20-3
Cumene  98-82-8

NTP
Known to be human carcinogen
Benzene  71-43-2
Reasonably anticipated to be a human carcinogen
Naphthalene  91-20-3

ACGIH
Confirmed human carcinogen
Benzene  71-43-2

SECTION 3: Composition/information on ingredients

Synonyms: Hexane, Light hydrotreated distillate
BTX Concentrate

Molecular formula: UVCB

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrotreated Light Distillate</td>
<td>68410-97-9</td>
<td>100</td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>0 - 80</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>0 - 30</td>
</tr>
<tr>
<td>Benzene, dimethyl-</td>
<td>1330-20-7</td>
<td>0 - 10</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>0 - 10</td>
</tr>
<tr>
<td>n-Heptane</td>
<td>142-82-5</td>
<td>0 - 5</td>
</tr>
</tbody>
</table>
### SECTION 4: First aid measures

**General advice**: Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.

**If inhaled**: Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.

**In case of skin contact**: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

**In case of eye contact**: Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

**If swallowed**: Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

### SECTION 5: Firefighting measures

**Flash point**: 4 °C (39 °F)

**Autoignition temperature**: No data available

**Suitable extinguishing media**: Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.

**Unsuitable extinguishing media**: High volume water jet.

**Specific hazards during firefighting**: Do not allow run-off from fire fighting to enter drains or water courses.

**Special protective equipment for fire-fighters**: Wear self-contained breathing apparatus for firefighting if necessary.

**Further information**: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.

**Fire and explosion protection**: Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity.
discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Hazardous decomposition products : Carbon monoxide.

SECTION 6: Accidental release measures

Personal precautions : Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7: Handling and storage

Handling

Advice on safe handling : Avoid formation of aerosol. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Storage

Requirements for storage areas and containers : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters
Benzene, Toluene, Xylene (BTX) / Hydrogenated Pygas (HPG)

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<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Basis</th>
<th>Value</th>
<th>Control parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrotreated Light Distillate</td>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>500 ppm, 2,000 mg/m³</td>
<td>(b).</td>
</tr>
<tr>
<td>Benzene</td>
<td>ACGIH</td>
<td>TWA</td>
<td>500 ppm, 1,600 mg/m³</td>
<td>(b).</td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>TWA</td>
<td>0.5 ppm,</td>
<td>BEI, A1, Skin,</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>STEL</td>
<td>2.5 ppm,</td>
<td>BEI, A1, Skin,</td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>TWA</td>
<td>1 ppm,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>CEIL</td>
<td>5 ppm,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA Z-2</td>
<td>Peak</td>
<td>50 ppm,</td>
<td>(a).</td>
<td></td>
</tr>
<tr>
<td>OSHA 29 CFR 1910.1028(c)</td>
<td>TWA</td>
<td>1 ppm,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA 29 CFR 1910.1028(c)</td>
<td>STEL</td>
<td>5 ppm,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA CARC</td>
<td>PEL</td>
<td>1 ppm,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA CARC</td>
<td>STEL</td>
<td>5 ppm,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>ACGIH</td>
<td>TWA</td>
<td>20 ppm,</td>
<td>BEI, A4,</td>
</tr>
<tr>
<td>OSHA Z-2</td>
<td>TWA</td>
<td>200 ppm,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA Z-2</td>
<td>CEIL</td>
<td>300 ppm,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA Z-2</td>
<td>Peak</td>
<td>500 ppm,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>TWA</td>
<td>100 ppm, 375 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>STEL</td>
<td>150 ppm, 560 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>TWA</td>
<td>100 ppm, 435 mg/m³</td>
<td>(b).</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>TWA</td>
<td>100 ppm,</td>
<td>BEI, A4,</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>STEL</td>
<td>150 ppm,</td>
<td>BEI, A4,</td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>STEL</td>
<td>150 ppm, 655 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>TWA</td>
<td>100 ppm, 435 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>100 ppm, 435 mg/m³</td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>TWA</td>
<td>100 ppm, 435 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>STEL</td>
<td>125 ppm, 545 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n-hexane</td>
<td>ACGIH</td>
<td>TWA</td>
<td>20 ppm,</td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>50 ppm,</td>
<td>BEI, Skin,</td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>TWA</td>
<td>500 ppm, 1,800 mg/m³</td>
<td>(b).</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>TWA</td>
<td>50 ppm, 180 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methylcyclopentane</td>
<td>ACGIH</td>
<td>TWA</td>
<td>500 ppm,</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>STEL</td>
<td>1,000 ppm,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>TWA</td>
<td>500 ppm, 1,800 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>STEL</td>
<td>1,000 ppm, 3,600 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>TWA</td>
<td>1,800 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n-Heptane</td>
<td>ACGIH</td>
<td>TWA</td>
<td>500 ppm, 2,000 mg/m³</td>
<td>(b)</td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>TWA</td>
<td>500 ppm, 1,800 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>STEL</td>
<td>500 ppm, 2,000 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>TWA</td>
<td>400 ppm,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>STEL</td>
<td>500 ppm,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naphthalene</td>
<td>ACGIH</td>
<td>TWA</td>
<td>10 ppm,</td>
<td>(i), A4, Skin,</td>
</tr>
<tr>
<td>ACGIH</td>
<td>STEL</td>
<td>15 ppm,</td>
<td>(i), A4, Skin,</td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>10 ppm, 50 mg/m³</td>
<td>(i), A4, Skin,</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>TWA</td>
<td>10 ppm, 50 mg/m³</td>
<td>(b)</td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>TWA</td>
<td>10 ppm, 50 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyclopentane</td>
<td>ACGIH</td>
<td>TWA</td>
<td>600 ppm,</td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>TWA</td>
<td>600 ppm, 1,720 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumene</td>
<td>ACGIH</td>
<td>TWA</td>
<td>50 ppm,</td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>50 ppm, 245 mg/m³</td>
<td>X, (b),</td>
<td></td>
</tr>
<tr>
<td>OSHA Z-1-A</td>
<td>TWA</td>
<td>50 ppm, 245 mg/m³</td>
<td>X,</td>
<td></td>
</tr>
</tbody>
</table>

1,2,4-Trimethylbenzene | ACGIH | TWA | 25 ppm, | |

(i) Adopted values or notations enclosed are those for which changes are proposed in the NIC 1995-03-01.
(a) This standard applies to the industry segments exempt from the 1 ppm 8-hour TWA and 5 ppm STEL of the benzene standard at 1910.1028.
(b) The value in mg/m³ is approximate.
A1 Confirmed human carcinogen
A4 Not classifiable as a human carcinogen
BEI Substances for which there is a Biological Exposure Index or Indices (see BEI® section)
Skin Danger of cutaneous absorption
X Skin designation

Hazardous components without workplace control parameters

Immediately Dangerous to Life or Health Concentrations (IDLH)

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>Immediately Dangerous to Life or Health Concentration Value 500 ppm</td>
<td>1995-03-01</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>Immediately Dangerous to Life or Health Concentration Value 500 ppm</td>
<td>1995-03-01</td>
</tr>
</tbody>
</table>

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## Biological exposure indices

**US**

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Sampling time</th>
<th>Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene, dimethyl-</td>
<td>1330-20-7</td>
<td>Immediately Dangerous to Life or Health</td>
<td>900 ppm</td>
<td>1995-03-01</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>Immediately Dangerous to Life or Health</td>
<td>800 ppm</td>
<td>1995-03-01</td>
</tr>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>Immediately Dangerous to Life or Health</td>
<td>1100 ppm</td>
<td>1995-03-01</td>
</tr>
<tr>
<td>n-Heptane</td>
<td>142-82-5</td>
<td>Immediately Dangerous to Life or Health</td>
<td>750 ppm</td>
<td>1995-03-01</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>Immediately Dangerous to Life or Health</td>
<td>250 ppm</td>
<td>1995-03-01</td>
</tr>
<tr>
<td>Cumene</td>
<td>98-82-8</td>
<td>Immediately Dangerous to Life or Health</td>
<td>900 ppm</td>
<td>1995-03-01</td>
</tr>
</tbody>
</table>

### Biological exposure indices

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Sampling time</th>
<th>Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene, dimethyl-</td>
<td>1330-20-7</td>
<td>S-Phenylmercapturic acid: 0.025 mg/g Creatinine (Urine)</td>
<td>End of shift (As soon as possible after exposure ceases)</td>
<td>2008-01-01</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>Toluene: 0.02 mg/l (In blood)</td>
<td>Prior to last shift of workweek</td>
<td>2010-03-01</td>
</tr>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>Toluene: 0.03 mg/l (Urine)</td>
<td>End of shift (As soon as possible after exposure ceases)</td>
<td>2010-03-01</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>o-Cresol: 0.3 mg/g Creatinine (Urine)</td>
<td>End of shift (As soon as possible after exposure ceases)</td>
<td>2010-03-01</td>
</tr>
<tr>
<td>Cumene</td>
<td>98-82-8</td>
<td>Methylhippuric acids: 1.5 g/g creatinine (Urine)</td>
<td>End of shift (As soon as possible after exposure ceases)</td>
<td>2013-03-01</td>
</tr>
</tbody>
</table>

### Engineering measures

Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### Personal protective equipment

**Respiratory protection**: Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this...
Material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Organic Vapors. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

Hand protection: The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection: Eye wash bottle with pure water. Tightly fitting safety goggles.

Skin and body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. Wear as appropriate: Flame retardant antistatic protective clothing. Workers should wear antistatic footwear.

Hygiene measures: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

Protective measures: Wear suitable protective equipment. Avoid contact with skin. When using do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance
Form: Liquid
Physical state: Liquid
Color: Colorless
Odor: Mild
Odor Threshold: No data available

Safety data
Flash point: 4 °C (39 °F)
Lower explosion limit: No data available
Upper explosion limit: No data available
Oxidizing properties: No
Autoignition temperature: No data available
Molecular formula: UVCB
Molecular weight: 81.2 g/mol
pH: Not applicable
SAFETY DATA SHEET

Benzene, Toluene, Xylene (BTX) / Hydrogenated Pygas (HPG)

Pour point : No data available

Boiling point/boiling range : 66 - 232 °C (151 - 450 °F)

Vapor pressure : No data available

Relative density : 0.86 at 21.6 °C (70.9 °F)

Water solubility : Negligible

Partition coefficient: n-octanol/water : No data available

Viscosity, kinematic : No data available

Relative vapor density : No data available

Evaporation rate : 2.8

Percent volatile : > 99 %

SECTION 10: Stability and reactivity

Chemical stability : This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous reactions

Conditions to avoid : Heat, flames and sparks.

Materials to avoid : May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous decomposition products : Carbon monoxide

Other data : No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

Benzene, Toluene, Xylene (BTX) / Hydrogenated Pygas (HPG)

Acute oral toxicity : LD50 Oral: > 5,000 mg/kg

Species: Rat

Benzene, Toluene, Xylene (BTX) / Hydrogenated Pygas (HPG)

Acute inhalation toxicity : LC50: > 12400 ppm

Exposure time: 4 h

Species: Rat
Benzene, Toluene, Xylene (BTX) / Hydrogenated Pygas (HPG)

Acute dermal toxicity: LD50 Dermal: > 2,000 mg/kg
Information refers to the main ingredient.

Skin irritation: Skin irritation
May cause skin irritation in susceptible persons.

Eye irritation: No eye irritation
Vapors may cause irritation to the eyes, respiratory system and the skin.

Sensitization: Did not cause sensitization on laboratory animals.

Repeated dose toxicity: Method: Based on product or component testing, long term repeated exposure may cause damage to the following organs:
Target Organs: Auditory organs, Eyes, Blood, Nervous system
Estimated based on individual component values.

Carcinogenicity: Method: Estimated based on individual component values.
Remarks: Suspect cancer hazard

Reproductive toxicity

Toluene: Species: Rat
Application Route: Inhalation
Dose: 0, 100, 500, 2000 ppm
Test period: 95 d
NOAEL Parent: 2000 ppm

n-Heptane: Species: Rat
Application Route: Inhalation
Dose: 0, 900, 3000, 9000 ppm
Number of exposures: 6 hr/d, 5 d/wk
Test period: 13 wk
Method: OECD Test Guideline 416
NOAEL Parent: 9000 ppm
NOAEL F1: 3000 ppm
NOAEL F2: 3000 ppm

n-hexane: Species: Rat
Sex: male
Application Route: Inhalation
Dose: 5,000 ppm
Number of exposures: 16 hr/d, 6 d/wk
Test period: 6 wks
permanent testicular damage characterized by loss of germ-cell line
### Benzene, Toluene, Xylene (BTX) / Hydrogenated Pygas (HPG)

#### Developmental Toxicity

<table>
<thead>
<tr>
<th>Substance</th>
<th>Species</th>
<th>Application Route</th>
<th>Dose</th>
<th>Number of exposures</th>
<th>Test period</th>
<th>NOAEL Teratogenicity</th>
<th>NOAEL Maternal</th>
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<td>6 h/day</td>
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<td>GD 7-16</td>
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<td>Species: Mouse</td>
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<td>Application Route: oral gavage</td>
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<td>Dose: 0, 780, 1960, 2619 mg/kg</td>
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<td>NOAEL Maternal: 780 mg/kg</td>
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<td>n-Heptane</td>
<td>Rat</td>
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<td>200, 1,000, 5,000 ppm</td>
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<td>Dose: 200, 1,000, 5,000 ppm</td>
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<td>Naphthalene</td>
<td>Rabbit</td>
<td>Oral gavage</td>
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<td>40, 200, 400 mg/kg</td>
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<td>Application Route: oral gavage</td>
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<td>Dose: 40, 200, 400 mg/kg</td>
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<td>Test period: 29 d, GD 6-18</td>
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</tbody>
</table>
## Benzene, Toluene, Xylene (BTX) / Hydrogenated Pygas (HPG)

### NOAEL Teratogenicity

**Cumene**
- **Species:** Rat  
- **Application Route:** Inhalation  
- **Dose:** 0, 100, 500, 1200 ppm  
- **Number of exposures:** 6 h/d  
- **Test period:** GD 6-15  
- **NOAEL Teratogenicity:** > 1200 ppm  
- **NOAEL Maternal:** 100 ppm

**Species:** Rabbit  
- **Application Route:** Inhalation  
- **Dose:** 0, 500, 1200, 2300 ppm  
- **Number of exposures:** 6 h/d  
- **Test period:** GD 6-18  
- **NOAEL Teratogenicity:** > 2300 ppm

### Aspiration toxicity

**May be fatal if swallowed and enters airways.**

**Substances known to cause human aspiration toxicity hazards or to be regarded as if they cause human aspiration toxicity hazard.**

### Toxicology Assessment

#### Benzene, Toluene, Xylene (BTX) / Hydrogenated Pygas (HPG)

**CMR effects**
- **Carcinogenicity:** May cause cancer.
- **Mutagenicity:** May cause genetic defects.
- **Teratogenicity:** May damage the unborn child.
- **Reproductive toxicity:** Suspected of damaging fertility.

### Further information

- **Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.**

### Ecotoxicity effects

#### To fish
- **Estimated based on individual component values.**  
  Toxic to fish.

#### To daphnia and other aquatic invertebrates
- **Estimated based on individual component values.**  
  Toxic to aquatic organisms.

#### To algae
- **Estimated based on individual component values.**  
  Toxic to algae.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

Ethylbenzene  
NOEC: 1 mg/l  
Exposure time: 7 d  
Species: Daphnia pulex (Water flea)  
semi-static test  
Analytical monitoring: yes

Elimination information (persistence and degradability)

Bioaccumulation  
This material is not expected to bioaccumulate.

Biodegradability  
Expected to be ultimately biodegradable

Ecotoxicology Assessment

Acute aquatic toxicity  
Toxic to aquatic life.

Chronic aquatic toxicity  
Toxic to aquatic life with long lasting effects.

Results of PBT assessment  
This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

Additional ecological information  
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

The information in this SDS pertains only to the product as shipped.

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product  
The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging  
Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

National legislation

**SARA 311/312 Hazards**
- Fire Hazard
- Acute Health Hazard
- Chronic Health Hazard

**CERCLA Reportable Quantity**
- 13 lbs
- Benzene

**SARA 302 Reportable Quantity**
- This material does not contain any components with a SARA 302 RQ.
SARA 302 Threshold Planning Quantity: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 304 Reportable Quantity: This material does not contain any components with a section 304 EHS RQ.

SARA 313 Ingredients: The following components are subject to reporting levels established by SARA Title III, Section 313:

- Benzene - 71-43-2
- Toluene - 108-88-3
- Benzene, dimethyl- - 1330-20-7
- Ethylbenzene - 100-41-4
- n-hexane - 110-54-3
- Naphthalene - 91-20-3
- Cumene - 98-82-8
- 1,2,4-Trimethylbenzene - 95-63-6

Clean Air Act

Ozone-Depletion Potential: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):■ Benzene - 71-43-2
- Toluene - 108-88-3
- Benzene, dimethyl- - 1330-20-7
- Ethylbenzene - 100-41-4
- n-hexane - 110-54-3
- Naphthalene - 91-20-3
- Cumene - 98-82-8

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

- Benzene - 71-43-2
- Toluene - 108-88-3
- Benzene, dimethyl- - 1330-20-7
- Ethylbenzene - 100-41-4
- Cumene - 98-82-8

US State Regulations
SAFETY DATA SHEET

Benzene, Toluene, Xylene (BTX) / Hydrogenated Pygas (HPG)

Version 4.1
Revision Date 2016-02-19

Pennsylvania Right To Know:
- Hydrotreated Light Distillate - 68410-97-9
  Benzene - 71-43-2
  Toluene - 108-88-3
  Benzene, dimethyl- - 1330-20-7
  Ethylbenzene - 100-41-4
  n-hexane - 110-54-3
  Methylcyclopentane - 96-37-7
  n-Heptane - 142-82-5
  Ethyltoluene - 25550-14-5
  Naphthalene - 91-20-3
  Cyclopentane - 287-92-3
  Cumene - 98-82-8
  1,2,4-Trimethylbenzene - 95-63-6

New Jersey Right To Know:
- Hydrotreated Light Distillate - 68410-97-9
  Benzene - 71-43-2
  Toluene - 108-88-3
  Benzene, dimethyl- - 1330-20-7
  Ethylbenzene - 100-41-4
  n-hexane - 110-54-3
  Methylcyclopentane - 96-37-7
  n-Heptane - 142-82-5
  Ethyltoluene - 25550-14-5
  Naphthalene - 91-20-3
  Cyclopentane - 287-92-3
  Cumene - 98-82-8
  1,2,4-Trimethylbenzene - 95-63-6

California Prop. 65 Ingredients:
"WARNING! This product contains a chemical known in the State of California to cause cancer.

WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Notification status:
- Europe REACH: Not in compliance with the inventory
- United States of America TSCA: On the inventory, or in compliance with the inventory
- Canada DSL: On the inventory, or in compliance with the inventory
- Australia AICS: On the inventory, or in compliance with the inventory
- New Zealand NZIoC: On the inventory, or in compliance with the inventory
- Japan ENCS: Not in compliance with the inventory
- Korea KECI: On the inventory, or in compliance with the inventory
- Philippines PICCS: On the inventory, or in compliance with the inventory
- China IECSC: On the inventory, or in compliance with the inventory
SECTION 16: Other information

**NFPA Classification**
- Health Hazard: 2
- Fire Hazard: 3
- Reactivity Hazard: 0

**Further information**
- Legacy SDS Number: PE0087

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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<th>Key or legend to abbreviations and acronyms used in the safety data sheet</th>
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SDS Number: 100000067417
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<td>Toxic Substance Control Act</td>
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