

## Safety Data Sheet

**MOTIVA****Section 1: Identification****Product identifier****Product Name**

- **Generic Conventional Gasoline**

**Synonyms**

- See Section 16

**SDS Number/Grade**

- G0008GN

**Relevant identified uses of the substance or mixture and uses advised against****Recommended use**

- Fuel for automotive gasoline engines

**Restrictions on use**

- This product must not be used in applications other than those listed in Section 1 without first seeking the advice of the supplier

**Details of the supplier of the safety data sheet****Manufacturer**

- Motiva Enterprises LLC  
PO BOX 4540  
Houston, TX 77210-4540  
United States  
www.Motiva.com  
Email: SDS@Motiva.com

Telephone (General) • 1-800-339-8714

**Emergency telephone number****Manufacturer**

- 1-800-424-9300 - CHEMTREC

**Section 2: Hazard Identification****United States (US)**

According to: OSHA 29 CFR 1910.1200 HCS

**Classification of the substance or mixture****OSHA HCS 2012**

- Flammable Liquids 1  
Aspiration 1  
Skin Irritation 2  
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects  
Germ Cell Mutagenicity 1B  
Carcinogenicity 1B  
Reproductive Toxicity 2  
Hazardous to the aquatic environment Chronic 2

**Label elements****OSHA HCS 2012****DANGER**

- Hazard statements** • Extremely flammable liquid and vapour  
May be fatal if swallowed and enters airways  
Causes skin irritation  
May cause drowsiness or dizziness  
May cause genetic defects.

May cause cancer.  
 Suspected of damaging fertility or the unborn child.  
 Toxic to aquatic life with long lasting effects

## Precautionary statements

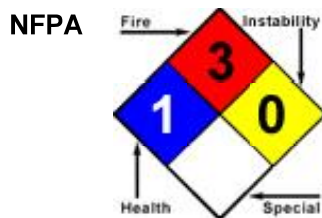
- Prevention •** Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.  
 Keep container tightly closed.  
 Ground and/or bond container and receiving equipment.  
 Use explosion-proof electrical/ventilating/lighting/equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Avoid breathing mist, vapours and/or spray.  
 Wash thoroughly after handling.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves/protective clothing/eye protection/face protection.
- Response •** In case of fire: Use to extinguish.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 Call a POISON CENTER/doctor if you feel unwell.  
 If on skin: Wash with plenty of water.  
 Take off contaminated clothing and wash before reuse.  
 Specific treatment, see supplemental first aid information.  
 If skin irritation occurs: Get medical advice/attention.  
 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
 Do NOT induce vomiting.  
 IF exposed or concerned: Get medical advice/attention.
- Storage/Disposal •** Store in a well-ventilated place. Keep container tightly closed.  
 Keep cool.  
 Store locked up.  
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- HCS 2012 Other Information**
- Liquid evaporates quickly and can ignite leading to a flash fire, or an explosion in a confined space  
 This material is a static accumulator. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapor mixtures can occur.

## Other hazards

### OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

## Other information



## Section 3 - Composition/Information on Ingredients

### Substances

- Material does not meet the criteria of a substance.

### Mixtures

Composition		
Chemical Name	Identifiers	%
Gasoline	NDA	100%
Xylene [0% TO 25%]	CAS:1330-20-7	0% TO 25%
Toluene [0% TO 25%]	CAS:108-88-3	0% TO 25%
Benzene, trimethyl- [0% TO 5%]	CAS:25551-13-7	0% TO 5%
Benzene [0% TO 4%]	CAS:71-43-2	0% TO 4%
Hexane [0% TO 3%]	CAS:110-54-3	0% TO 3%
Ethylbenzene [0% TO 3%]	CAS:100-41-4	0% TO 3%
Naphthalene [0% TO 1%]	CAS:91-20-3	0% TO 1%
Cyclohexane [0% TO 1%]	CAS:110-82-7	0% TO 1%

Gasoline is considered a mixture by EPA under the Toxic Substances Control Act (TSCA). The refinery streams used to blend gasoline are all on the TSCA Chemical Substances Inventory. The product may contain several additives at <0.1% v/v each. Dyes and markers can be used to indicate tax status and prevent fraud.

## Section 4: First-Aid Measures

### Description of first aid measures

#### Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If signs/symptoms continue, get medical attention.

#### Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. If irritation develops and persists, get medical attention.

#### Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

#### Ingestion

- Do not use mouth-to-mouth method if victim ingested the substance. Do NOT induce vomiting. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

### Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

### Indication of any immediate medical attention and special treatment needed

#### Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## Section 5: Fire-Fighting Measures

### Extinguishing media

#### Suitable Extinguishing Media

- LARGE FIRES: Water spray, fog or alcohol-resistant foam.  
SMALL FIRES: Dry chemical, CO<sub>2</sub>, water spray or alcohol-resistant foam.

#### Unsuitable Extinguishing Media

- Do not use direct water jets on the burning product as they could cause a steam explosion and spread of the fire.

### Special hazards arising from the substance or mixture

**Unusual Fire and Explosion Hazards**

- **HIGHLY FLAMMABLE:** Will be easily ignited by heat, sparks or flames. Containers may explode when heated. Many liquids are lighter than water. Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapors may travel to source of ignition and flash back. Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard.

**Hazardous Combustion Products**

- Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.

**Advice for firefighters**

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA). Move containers from fire area if you can do it without risk. **LARGE FIRES:** Cool containers with flooding quantities of water until well after fire is out. If the fire cannot be extinguished the only course of action is to evacuate immediately.

**Section 6 - Accidental Release Measures****Personal precautions, protective equipment and emergency procedures****Personal Precautions**

- Ventilate the area before entry. **CAUTION:** Victim may be a source of contamination. Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE) Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Emergency Procedures**

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, **ISOLATE** for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. **LARGE SPILL:** Consider initial downwind evacuation for at least 300 meters (1000 feet) **ELIMINATE** all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharge. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Monitor area with combustible gas meter. Do not operate electrical equipment.

**Environmental precautions**

- Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up****Containment/Clean-up Measures**

- Stop leak if you can do it without risk. For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Dike far ahead of spill for later disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. A vapor suppressing foam may be used to reduce vapors. All equipment used when handling the product must be grounded. **LARGE SPILLS:** Water spray may reduce vapor; but may not prevent ignition in closed spaces.

**Section 7 - Handling and Storage****Precautions for safe handling****Handling**

- Keep away from heat, sparks, and flame. Do not use sparking tools. Take precautionary measures against static charges. All equipment used when handling the

product must be grounded. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Never siphon by mouth. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist, vapours and/or spray. Avoid contact with skin, eyes, and clothing. Do not ingest. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Air-dry contaminated clothing in a well-ventilated area before laundering. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Do not cut, drill, grind, weld or perform similar operations on or near containers. Containers, even those that have been emptied, can contain explosive vapours. Wait 2 minutes after tank filling (for tanks such as those on road tanker vehicles) before opening hatches or manholes. Wait 30 minutes after tank filling (for large storage tanks) before opening hatches or manholes. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air vapour mixtures can occur. Be aware of handling operations that may give rise to additional hazards that result from the accumulation of static charges. These include but are not limited to pumping (especially turbulent flow), mixing, filtering, splash filling, cleaning and filling of tanks and containers, sampling, switch loading, gauging, vacuum truck operations, and mechanical movements. These activities may lead to static discharge e.g. spark formation. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge ( $\leq 1$  m/s until fill pipe submerged to twice its diameter, then  $\leq 7$  m/s). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations.

## Conditions for safe storage, including any incompatibilities

### Storage

- Take suitable precautions when opening sealed containers, as pressure can build up during storage. Drums should be stacked to a maximum of 3 high. Packaged product must be kept tightly closed and stored in a diked (bunded) well-ventilated area, away from, ignition sources and other sources of heat. Tanks must be specifically designed for use with this product. Bulk storage tanks should be diked (bunded). Locate tanks away from heat and other sources of ignition. Cleaning, inspection and maintenance of storage tanks is a specialist operation, which requires the implementation of strict procedures and precautions. Keep in a cool place. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable.

## Section 8 - Exposure Controls/Personal Protection

### Control parameters

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Toluene (108-88-3)	Ceilings	Not established	Not established	300 ppm Ceiling
	TWAs	20 ppm TWA	100 ppm TWA; 375 mg/m <sup>3</sup> TWA	200 ppm TWA
	STELs	Not established	150 ppm STEL; 560 mg/m <sup>3</sup> STEL	Not established
Benzene (71-43-2)	Ceilings	Not established	Not established	25 ppm Ceiling
	STELs	2.5 ppm STEL	1 ppm STEL	5 ppm STEL (see 29 CFR 1910.1028)
	TWAs	0.5 ppm TWA	0.1 ppm TWA	10 ppm TWA (applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028); 1 ppm TWA
Naphthalene (91-20-3)	TWAs	10 ppm TWA	10 ppm TWA; 50 mg/m <sup>3</sup> TWA	10 ppm TWA; 50 mg/m <sup>3</sup> TWA
	STELs	Not established	15 ppm STEL; 75 mg/m <sup>3</sup> STEL	Not established
Cyclohexane (110-82-7)	TWAs	100 ppm TWA	300 ppm TWA; 1050 mg/m <sup>3</sup> TWA	300 ppm TWA; 1050 mg/m <sup>3</sup> TWA
Ethylbenzene	TWAs	20 ppm TWA	100 ppm TWA; 435 mg/m <sup>3</sup> TWA	100 ppm TWA; 435 mg/m <sup>3</sup> TWA

(100-41-4)	STELs	Not established	125 ppm STEL; 545 mg/m3 STEL	Not established
Xylene (1330-20-7)	TWAs	100 ppm TWA	Not established	100 ppm TWA; 435 mg/m3 TWA
	STELs	150 ppm STEL	Not established	Not established
Hexane (110-54-3)	TWAs	50 ppm TWA	50 ppm TWA; 180 mg/m3 TWA	500 ppm TWA; 1800 mg/m3 TWA
Benzene, trimethyl- (25551-13-7)	TWAs	25 ppm TWA	Not established	Not established

## Exposure controls

### Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

### Personal Protective Equipment

#### Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus. Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

#### Eye/Face

- Wear safety goggles.

#### Skin/Body

- For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Select gloves tested to a relevant standard (e.g. Europe EN374, US F739). When prolonged or frequent repeated contact occurs, Nitrile gloves may be suitable. (Breakthrough time of > 240 minutes.) For incidental contact/splash protection Neoprene, PVC gloves may be suitable.

### Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

#### Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

## Section 9 - Physical and Chemical Properties

### Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Straw colored liquid with typical gasoline odor.
Color	Straw	Odor	Gasoline
Odor Threshold	No data available		
General Properties			
Boiling Point	20 to 221.1 °C(68 to 429.98 °F)	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	= 0.745 Water=1	Water Solubility	Negligible < 0.1 %

Viscosity	1.4 Centistoke (cSt, cS) or mm <sup>2</sup> /sec @ 50 °C(122 °F)		
<b>Volatility</b>			
Vapor Pressure	<= 53.8 kPa @ 38 °C(100.4 °F)	Vapor Density	No data available
Evaporation Rate	No data available		
<b>Flammability</b>			
Flash Point	<= -40 °C(<= -40 °F)	UEL	8 %
LEL	1 %	Autoignition	> 250 °C(> 482 °F)
Flammability (solid, gas)	No data available		
<b>Environmental</b>			
Octanol/Water Partition coefficient	No data available		

## Other Information

- Low conductivity: < 100 pS/m. The conductivity of this material makes it a static accumulator. A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, and antistatic additives can greatly influence the conductivity of a liquid.

## Section 10: Stability and Reactivity

### Reactivity

- No dangerous reaction known under conditions of normal use.

### Chemical stability

- Stable under normal temperatures and pressures.

### Possibility of hazardous reactions

- Hazardous polymerization will not occur.

### Conditions to avoid

- Avoid heat, sparks, open flames and other ignition sources. In certain circumstances product can ignite due to static electricity.

### Incompatible materials

- Strong oxidising agents.

### Hazardous decomposition products

- Hazardous decomposition products are not expected to form during normal storage. Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulfur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

## Section 11 - Toxicological Information

### Information on toxicological effects

#### Other Material Information

- Basis for assessment: Information given is based on product data, a knowledge of the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Components		
Gasoline (100%)		<b>Acute Toxicity:</b> Ingestion-Oral-Rat LD50 • >5000 mg/kg; Inhalation-Rat LC50 • >5 4 Hour(s); Skin-Rabbit LD50 • >2000 mg/kg

Benzene (0% TO 4%)	71-43-2	<p><b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 930 mg/kg; <i>Behavioral:</i><b>Tremor</b>; <i>Behavioral:</i><b>Convulsions or effect on seizure threshold</b>; Inhalation-Rat LC50 • 10000 ppm 7 Hour(s); Inhalation-Human TCLo • 50 mg/m<sup>3</sup> 2 Hour(s); <i>Behavioral:</i><b>Changes in psychophysiological tests</b>; <i>Behavioral:</i><b>Muscle weakness</b>; Inhalation-Rat TCLo • 1 ppm 6 Hour(s); <i>Kidney, Ureter, and Bladder:</i><b>Other changes in urine composition</b>; Skin-Rabbit LD50 • &gt;9400 µL/kg; <b>Irritation:</b> Eye-Rabbit • 2 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; <b>Multi-dose Toxicity:</b> Inhalation-Mouse TCLo • 100 ppm 2 Week(s)-Intermittent; <i>Endocrine:</i><b>Differential effect of sex or castration on observed toxicity</b>; <i>Blood:</i><b>Leukopenia</b>; <i>Blood:</i><b>Changes in bone marrow not included above</b>; Inhalation-Mouse TDLo • 100 ppm 6 Hour(s) 10 Day(s)-Intermittent; <i>Blood:</i><b>Changes in bone marrow not included above</b>; <i>Blood:</i><b>Changes in platelet count</b>;</p> <p><b>Mutagen:</b> Dominant lethal test • Ingestion/Oral-Mouse • 1 mg/kg; Cytogenetic analysis • Inhalation-Human • 0.1 ppm; Cytogenetic analysis • Inhalation-Human • 125 ppm 1 Year(s); Sister chromatid exchange • Inhalation-Mouse • 10 ppm 6 Hour(s); Micronucleus test • Inhalation-Rat • 1 ppm 6 Hour(s);</p> <p><b>Reproductive:</b> Inhalation-Mouse TCLo • 5 ppm (6-15D preg); <i>Reproductive Effects:</i><b>Effects on Embryo or Fetus:</b><b>Cytological changes</b>; <i>Reproductive Effects:</i><b>Specific Developmental Abnormalities:</b><b>Blood and lymphatic system</b>; Inhalation-Mouse TCLo • 20 ppm 6 Hour(s)(6-15D preg); <i>Reproductive Effects:</i><b>Specific Developmental Abnormalities:</b><b>Blood and lymphatic system</b>; Inhalation-Rat TCLo • 670 mg/m<sup>3</sup> 24 Hour(s)(15D pre/1-22D preg); <i>Reproductive Effects:</i><b>Effects on Fertility:</b><b>Female fertility index</b>; Parenteral-Mouse TDLo • 4 g/kg (12D preg); <i>Reproductive Effects:</i><b>Effects on Newborn:</b><b>Weaning or lactation index</b>;</p> <p><b>Tumorigen / Carcinogen:</b> Inhalation-Human • 150 ppm 15 Minute(s) 8 Year(s)-Intermittent; <i>Tumorigenic:</i><b>Carcinogenic by RTECS criteria</b>; <i>Blood:</i><b>Leukemia</b>; Inhalation-Human • 10 mg/m<sup>3</sup> 11 Year(s)-Intermittent; <i>Tumorigenic:</i><b>Carcinogenic by RTECS criteria</b>; <i>Blood:</i><b>Leukemia</b></p>
Benzene, trimethyl- (0% TO 5%)	25551-13-7	<p><b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 8970 mg/kg;</p> <p><b>Irritation:</b> Eye-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation</p>
Cyclohexane (0% TO 1%)	110-82-7	<p><b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 6240 mg/kg; <i>Behavioral:</i><b>Somnolence (general depressed activity)</b>; <i>Gastrointestinal:</i><b>Changes in structure or function of salivary glands</b>; <i>Gastrointestinal:</i><b>Hypermotility, diarrhea</b>; Inhalation-Rat LC50 • &gt;9500 ppm 4 Hour(s); <i>Behavioral:</i><b>Somnolence (general depressed activity)</b>; <i>Behavioral:</i><b>Tremor</b>; <i>Lungs, Thorax, or Respiration:</i><b>Respiratory depression</b>; Inhalation-Cat TCLo • 62500 mg/m<sup>3</sup> 15 Minute(s); <i>Behavioral:</i><b>Convulsions or effect on seizure threshold</b>; <i>Vascular:</i><b>BP lowering not characterized in autonomic section</b>; Skin-Rabbit LD50 • &gt;2000 mg/kg;</p> <p><b>Irritation:</b> Skin-Rabbit • 1548 mg 2 Day(s)-Intermittent;</p> <p><b>Multi-dose Toxicity:</b> Inhalation-Mouse TCLo • 2000 ppm 90 Day(s)-Intermittent; <i>Behavioral:</i><b>Somnolence (general depressed activity)</b>; <i>Behavioral:</i><b>Changes in motor activity (specific assay)</b>; Inhalation-Rat TCLo • 500 ppm 13 Week(s)-Intermittent; <i>Behavioral:</i><b>Somnolence (general depressed activity)</b>; Inhalation-Rat TCLo • 300 ppm 6 Hour(s) 2 Week(s)-Intermittent; <i>Brain and Coverings:</i><b>Other degenerative changes</b>; <i>Biochemical:</i><b>Enzyme inhibition, induction, or change in blood or tissue levels:</b><b>Other oxidoreductases</b></p>
Hexane (0% TO 3%)	110-54-3	<p><b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 15840 mg/kg; Ingestion/Oral-Rat LD50 • 29700 mg/kg; <i>Behavioral:</i><b>Somnolence (general depressed activity)</b>; <i>Gastrointestinal:</i><b>Changes in structure or function of salivary glands</b>; <i>Gastrointestinal:</i><b>Hypermotility, diarrhea</b>; Ingestion/Oral-Rat TDLo • 20000 mg/kg; <i>Reproductive Effects:</i><b>Paternal Effects:</b><b>Spermatogenesis</b>; <i>Reproductive Effects:</i><b>Paternal Effects:</b><b>Prostate, seminal vesicle, Cowper's gland, accessory glands</b>; Inhalation-Rat LC50 • 48000 ppm 4 Hour(s);</p> <p><b>Irritation:</b> Eye-Rabbit • 10 mg • Mild irritation;</p> <p><b>Multi-dose Toxicity:</b> Inhalation-Human TCLo • 190 mg/m<sup>3</sup> 6 Year(s)-Intermittent; <i>Peripheral Nerve and Sensation:</i><b>Paresthesia</b>;</p> <p><b>Reproductive:</b> Ingestion/Oral-Mouse TDLo • 238 g/kg (6-15D preg); <i>Reproductive Effects:</i><b>Effects on Embryo or Fetus:</b><b>Fetotoxicity (except death, e.g., stunted fetus)</b>; Inhalation-Rat TCLo • 5000 ppm (6-19D preg); <i>Reproductive Effects:</i><b>Maternal Effects:</b><b>Other effects</b>; <i>Reproductive Effects:</i><b>Effects on Embryo or Fetus:</b><b>Fetotoxicity (except death, e.g., stunted fetus)</b>; <i>Reproductive Effects:</i><b>Specific Developmental Abnormalities:</b><b>Musculoskeletal system</b>;</p> <p><b>Tumorigen / Carcinogen:</b> Inhalation-Mouse TCLo • 9018 ppm 6 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic:</i><b>Neoplastic by RTECS criteria</b>; <i>Liver:</i><b>Tumors</b>; Inhalation-Rat TCLo • 1000 ppm 4 Hour(s) 59 Week(s)-Intermittent; <i>Tumorigenic:</i><b>Carcinogenic by RTECS criteria</b>; <i>Reproductive Effects:</i><b>Tumorigenic Effects:</b><b>Testicular tumors</b></p>
Xylene (0% TO 1%)	1330-20-7	<p><b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 4300 mg/kg; <i>Liver:</i><b>Other changes</b>; <i>Kidney, Ureter, and Bladder:</i><b>Other changes</b>; Inhalation-Rat LC50 • 5000 ppm 4 Hour(s); Inhalation-Man LCLo • 10000 ppm 6 Hour(s); <i>Behavioral:</i><b>General anesthetic</b>; <i>Lungs, Thorax, or Respiration:</i><b>Cyanosis</b>; <i>Blood:</i><b>Other changes</b>; Inhalation-Human TCLo • 200 ppm; <i>Sense Organs and Special Senses:</i><b>Olfaction:</b><b>Other changes</b>; <i>Sense Organs and Special Senses:</i><b>Eye:</b><b>Conjunctive irritation</b>; <i>Lungs, Thorax, or Respiration:</i><b>Other changes</b>; Skin-Rabbit LD50 • &gt;1700 mg/kg;</p> <p><b>Irritation:</b> Eye-Rabbit • 5 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation;</p>

25%)	20-7	<p><b>Reproductive:</b> Inhalation-Rabbit TCLo • 1 g/m<sup>3</sup> 24 Hour(s)(7-20D preg); <i>Reproductive Effects:Effects on Fertility:Abortion</i>; Inhalation-Rat TCLo • 50 mg/m<sup>3</sup> 6 Hour(s)(1-21D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system</i>; <i>Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities</i>; <i>Reproductive Effects:Effects on Newborn:Growth statistics (e.g., reduced weight gain)</i>; Inhalation-Rat TDLo • 200 ppm 6 Hour(s)(4-20D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system</i>; <i>Reproductive Effects:Effects on Newborn:Behavioral</i></p>
Ethylbenzene (0% TO 3%)	100-41-4	<p><b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 3500 mg/kg; Inhalation-Guinea Pig LCLo • 2500 ppm 8 Hour(s); <i>Behavioral:Coma</i>; Inhalation-Human TCLo • 21700 mg/m<sup>3</sup>; <i>Behavioral:Antipsychotic</i>; Inhalation-Mouse TCLo • 600 ppm 6 Minute(s); <i>Lungs, Thorax, or Respiration:Respiratory depression</i>; Skin-Rabbit LD50 • 17800 µL/kg; <b>Irritation:</b> Eye-Rabbit • 500 mg • Severe irritation; Skin-Rabbit • 15 mg 24 Hour(s)-Open • Mild irritation; <b>Multi-dose Toxicity:</b> Inhalation-Rat TCLo • 550 ppm 8 Hour(s) 5 Day(s)-Intermittent; <i>Sense Organs and Special Senses:Ear:Change in acuity</i>; <i>Sense Organs and Special Senses:Ear:Changes in cochlear structure or function</i>; Inhalation-Rat TDLo • 200 ppm 13 Week(s)-Intermittent; <i>Sense Organs and Special Senses:Ear:Changes in cochlear structure or function</i>; <b>Mutagen:</b> Specific locus test • Intraperitoneal-Mouse • 754 µmol/L; Micronucleus test • Unreported Route-Hamster • Embryo (Somatic cell) • 25 mg/L; Sister chromatid exchange • Unreported Route-Human • Lymphocyte (Somatic cell) • 10 mmol/L; Mutation in Mammalian Somatic Cells • Unreported Route-Mouse • Lymphocyte (Somatic cell) • 80 mg/L; <b>Reproductive:</b> Inhalation-Rabbit TCLo • 1 g/m<sup>3</sup> 24 Hour(s)(7-20D preg); <i>Reproductive Effects:Effects on Fertility:Abortion</i>; Inhalation-Rat TCLo • 96 ppm 7 Hour(s)(1-19D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system</i>; Inhalation-Rat TCLo • 1000 ppm (6-20D preg); <i>Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus)</i>; Inhalation-Rat TCLo • 600 mg/m<sup>3</sup> 24 Hour(s)(7-15D preg); <i>Reproductive Effects:Effects on Fertility:Post-implantation mortality</i>; <i>Reproductive Effects:Effects on Embryo or Fetus:Fetal death</i>; <i>Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system</i>; <b>Tumorigen / Carcinogen:</b> Inhalation-Mouse TCLo • 750 ppm 6 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic:Carcinogenic by RTECS criteria</i>; <i>Lungs, Thorax, or Respiration:Bronchiogenic carcinoma</i>; <i>Liver:Tumors</i>; Inhalation-Rat TCLo • 750 ppm 6 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic:Carcinogenic by RTECS criteria</i>; <i>Kidney, Ureter, and Bladder:Tumors</i>; Inhalation-Rat TCLo • 23400 mg/kg 104 Week(s)-Intermittent; <i>Tumorigenic:Equivocal tumorigenic agent by RTECS criteria</i>; <i>Kidney, Ureter, and Bladder:Kidney tumors</i>; <i>Reproductive Effects:Tumorigenic Effects:Testicular tumors</i></p>
Naphthalene (0% TO 1%)	91-20-3	<p><b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 490 mg/kg; Ingestion/Oral-Mouse TDLo • 158 mg/kg; <i>Brain and Coverings:Other degenerative changes</i>; <i>Liver:Other changes</i>; <i>Biochemical:Metabolism (intermediary):Lipids, including transport</i>; Skin-Rabbit LD50 • &gt;20 g/kg; <b>Irritation:</b> Skin-Rabbit • 0.05 mL 24 Hour(s) • Severe irritation; <b>Multi-dose Toxicity:</b> Ingestion/Oral-Rat TDLo • 4500 mg/kg 10 Day(s)-Intermittent; <i>Brain and Coverings:Other degenerative changes</i>; Ingestion/Oral-Rat TDLo • 500 mg/kg 10 Day(s)-Intermittent; <i>Behavioral:Sleep</i>; <i>Lungs, Thorax, or Respiration:Dyspnea</i>; <b>Mutagen:</b> Specific locus test • Inhalation-Rat • 30 ppm 13 Week(s)-Intermittent; Micronucleus test • Unreported Route-Human • Lymphocyte (Somatic cell) • 30 mg/L; <b>Reproductive:</b> Ingestion/Oral-Mouse TDLo • 2400 mg/kg (7-14D preg); <i>Reproductive Effects:Effects on Newborn:Live birth index</i>; <i>Reproductive Effects:Effects on Newborn:Viability index (e.g., # alive at day 4 per # born alive)</i>; Ingestion/Oral-Rat TDLo • 4500 mg/kg (6-15D preg); <i>Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus)</i>; <i>Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities</i>; <b>Tumorigen / Carcinogen:</b> Inhalation-Mouse TCLo • 30 ppm 6 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic:Neoplastic by RTECS criteria</i>; <i>Lungs, Thorax, or Respiration:Tumors</i>; Inhalation-Rat TCLo • 60 ppm 6 Hour(s) 105 Week(s)-Intermittent; <i>Tumorigenic:Carcinogenic by RTECS criteria</i>; <i>Sense Organs and Special Senses:Olfaction:Tumors</i>; Inhalation-Rat TCLo • 1575 mg/kg 105 Week(s)-Intermittent; <i>Tumorigenic:Carcinogenic by RTECS criteria</i>; <i>Sense Organs and Special Senses:Olfaction:Tumors</i></p>
Toluene (0% TO 25%)	108-88-3	<p><b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 636 mg/kg; Inhalation-Rat LC50 • 49 g/m<sup>3</sup> 4 Hour(s); Inhalation-Human TCLo • 200 ppm; <i>Brain and Coverings:Recordings from specific areas of CNS</i>; <i>Behavioral:Antipsychotic</i>; <i>Blood:Changes in bone marrow not included above</i>; Inhalation-Human TCLo • 1500 mg/m<sup>3</sup> 8 Hour(s); <i>Sense Organs and Special Senses:Eye:Lacrimation</i>; <i>Sense Organs and Special Senses:Eye:Conjunctive irritation</i>; <i>Behavioral:Ataxia</i>; Inhalation-Man TCLo • 50 ppm; <i>Kidney, Ureter, and Bladder:Other changes in urine composition</i>; Skin-Rabbit LD50 • 14100 µL/kg; <b>Irritation:</b> Eye-Rabbit • 2 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; <b>Multi-dose Toxicity:</b> Inhalation-Mouse TCLo • 250 ppm 4 Day(s)-Continuous; <i>Behavioral:Convulsions or effect on seizure threshold</i>; <i>Behavioral:Abuse</i>; Inhalation-Mouse TCLo • 50 ppm 12 Week(s)-Intermittent; <i>Brain and Coverings:Other degenerative changes</i>; Inhalation-Rat TCLo • 10 ppm 6 Hour(s) 13 Week(s)-Intermittent; <i>Brain and Coverings:Other degenerative changes</i>; <i>Biochemical:Enzyme inhibition, induction, or change in blood or tissue</i></p>

/levels: **Multiple enzyme effects;**

**Mutagen:** Micronucleus test • Ingestion/Oral-Mouse • 200 mg/kg; Sister chromatid exchange • Inhalation-Human • 252 µg/L 19 Year(s); Cytogenetic analysis • Inhalation-Rat • 5400 µg/m<sup>3</sup> 16 Week(s)-Intermittent;

**Reproductive:** Inhalation-Mouse TCLO • 500 mg/m<sup>3</sup> 24 Hour(s)(6-13D preg); *Reproductive Effects: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus);* Inhalation-Mouse TCLO • 200 ppm 7 Hour(s)(7-16D preg); *Reproductive Effects: Specific Developmental Abnormalities: Urogenital system*

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	OSHA HCS 2012 • Classification criteria not met
Skin sensitization	OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	OSHA HCS 2012 • Aspiration 1
Carcinogenicity	OSHA HCS 2012 • Carcinogenicity 1B
Germ Cell Mutagenicity	OSHA HCS 2012 • Germ Cell Mutagenicity 1B
Toxicity for Reproduction	OSHA HCS 2012 • Toxic to Reproduction 2
STOT-SE	OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
STOT-RE	OSHA HCS 2012 • Classification criteria not met

## Potential Health Effects

### Inhalation

#### Acute (Immediate)

- Based on human experience, breathing of vapors or mists may cause a temporary burning sensation to nose, throat and lungs. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

#### Chronic (Delayed)

- No data available

### Skin

#### Acute (Immediate)

- Causes skin irritation.

#### Chronic (Delayed)

- No data available

### Eye

#### Acute (Immediate)

- Expected to be slightly irritating.

#### Chronic (Delayed)

- No data available

### Ingestion

#### Acute (Immediate)

- Material may be aspirated into lungs during ingestion and/or subsequent vomiting. Aspiration of this material will cause severe lung injury, chemical pneumonitis, pulmonary edema or death.

#### Chronic (Delayed)

- No data available

### Mutagenic Effects

- Repeated and prolonged exposure may cause mutagenic effects.

### Carcinogenic Effects

- Repeated and prolonged exposure may cause cancer.

Carcinogenic Effects				
	CAS	OSHA	IARC	NTP
Benzene	71-43-2	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen
Ethylbenzene	100-41-4	Not Listed	Group 2B-Possible Carcinogen	Not Listed
Naphthalene	91-20-3	Not Listed	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen

**Reproductive Effects**

- Repeated and prolonged exposure may cause reproductive effects.

**Key to abbreviations**

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

**Section 12 - Ecological Information****Toxicity**

- Expected to be toxic to fish. Expected to be toxic to daphnia and other aquatic invertebrates. Expected to be toxic to algae.

**Persistence and degradability**

- Major constituents are expected to be inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.

**Bioaccumulative potential**

- Contains constituents with the potential to bioaccumulate.

**Mobility in Soil**

- Evaporates within a day from water or soil surfaces. Large volumes may penetrate soil and could contaminate groundwater. Contains volatile components. Floats on water.

**Other adverse effects**

- Fuels are typically made from blending several refinery streams. Ecotoxicological studies have been carried out on a variety of hydrocarbon blends and streams but not those containing additives. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

**Section 13 - Disposal Considerations****Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

**Packaging waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

**Section 14 - Transport Information**

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	Environmental hazards
DOT	UN1203	Gasoline	3	II	None
TDG	UN1203	GASOLINE	3	II	NDA
IMO/IMDG	UN1203	GASOLINE	3	II	Marine Pollutant
IATA/ICAO	UN1203	Gasoline	3	II	NDA

**Special precautions for user** • None specified.

**Transport in bulk according** • No data available

**to Annex II of MARPOL 73/78  
and the IBC Code**

## Section 15 - Regulatory Information

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

**SARA Hazard Classifications** • Fire, Acute, Chronic

State Right To Know			
Component	CAS	NJ	PA
Benzene	71-43-2	Yes	Yes
Benzene, trimethyl-	25551-13-7	Yes	Yes
Cyclohexane	110-82-7	Yes	Yes
Ethylbenzene	100-41-4	Yes	Yes
Hexane	110-54-3	Yes	Yes
Naphthalene	91-20-3	Yes	Yes
Toluene	108-88-3	Yes	Yes
Xylene	1330-20-7	Yes	Yes

Inventory		
Component	CAS	TSCA
Benzene	71-43-2	Yes
Benzene, trimethyl-	25551-13-7	Yes
Cyclohexane	110-82-7	Yes
Ethylbenzene	100-41-4	Yes
Hexane	110-54-3	Yes
Naphthalene	91-20-3	Yes
Toluene	108-88-3	Yes
Xylene	1330-20-7	Yes

## United States

### Labor

#### U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Naphthalene	91-20-3	Not Listed
• Benzene, trimethyl-	25551-13-7	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	Not Listed
• Hexane	110-54-3	Not Listed

### Environment

#### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Naphthalene	91-20-3	
• Benzene, trimethyl-	25551-13-7	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Ethylbenzene	100-41-4	(listed under Ethyl benzene)
• Toluene	108-88-3	

• Xylene	1330-20-7	(isomers and mixtures)
• Benzene	71-43-2	(including Benzene from gasoline)
• Hexane	110-54-3	
<b>U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities</b>		
• Naphthalene	91-20-3	100 lb final RQ; 45.4 kg final RQ
• Benzene, trimethyl-	25551-13-7	Not Listed
• Cyclohexane	110-82-7	1000 lb final RQ; 454 kg final RQ
• Ethylbenzene	100-41-4	1000 lb final RQ; 454 kg final RQ
• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
• Xylene	1330-20-7	100 lb final RQ; 45.4 kg final RQ
• Benzene	71-43-2	10 lb final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule)
• Hexane	110-54-3	5000 lb final RQ; 2270 kg final RQ
<b>U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs</b>		
• Naphthalene	91-20-3	Not Listed
• Benzene, trimethyl-	25551-13-7	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	Not Listed
• Hexane	110-54-3	Not Listed
<b>U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs</b>		
• Naphthalene	91-20-3	Not Listed
• Benzene, trimethyl-	25551-13-7	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	Not Listed
• Hexane	110-54-3	Not Listed
<b>U.S. - CERCLA/SARA - Section 313 - Emission Reporting</b>		
• Naphthalene	91-20-3	0.1 % de minimis concentration
• Benzene, trimethyl-	25551-13-7	Not Listed
• Cyclohexane	110-82-7	1.0 % de minimis concentration
• Ethylbenzene	100-41-4	0.1 % de minimis concentration

• Toluene	108-88-3	1.0 % de minimis concentration
• Xylene	1330-20-7	1.0 % de minimis concentration
• Benzene	71-43-2	0.1 % de minimis concentration
• Hexane	110-54-3	1.0 % de minimis concentration

**U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing**

• Naphthalene	91-20-3	Not Listed
• Benzene, trimethyl-	25551-13-7	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	Not Listed
• Hexane	110-54-3	Not Listed

**Other Information**

- California Prop 65 - WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**Section 16 - Other Information**

<b>Revision Date</b>	• 28/June/2018
<b>Last Revision Date</b>	• 06/November/2017
<b>Preparation Date</b>	• 13/January/2017
<b>Other Information</b>	• Code(s): 400006871; 400006873; 400006874; 400006875; 400006878; 400006879; 400006905; 400006911; 400006912; 400007037; 400007228; 400007273; 400007276; 400007356; 400007412; 400009638
<b>Synonyms</b>	• BF RUL 87 RVP 7.8 CONV BF PUL 93 RVP7.8 Conv GN RUL 87 RVP>7.8 Conv GN MUL 89 RVP>7.8 Conv BF RUL 87 RVP>7.8 Conv BF PUL 93 RVP>7.8 Conv BF RUL 87 RVP7.0 CONV GN PUL 93 RVP>7.8 CONV GN PUL 93 RVP7.8 CONV TP MUL 89 RVP>7.8 CONV BF RUL 87 RVP9.0 CONV BF RUL RVP >5.5 CONV EXPORT ONLY BF PUL RVP >5.5 CONV EXPORT ONLY BF PUL 91 RVP>7.8 CONV UB PUL 93 RVP>7.8 CONV GN MUL90 RVP>7.8 CONV 0%ETOH
<b>Disclaimer/Statement of Liability</b>	• This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

**Key to abbreviations**

NDA = No Data Available