Material Safety Data Sheet

1. MATERIAL AND COMPANY IDENTIFICATION

Material Name : **Conventional Gasoline with Ether**
Uses : Fuel for spark ignition engines designed to run on unleaded fuel.
Company : Shell Oil Products US
P. O. Box 4453
Houston, TX 77210-4453
United States

MSDS Request : 877-276-7285

Emergency Telephone Number
Spill Information : 877-242-7400
Health Information : 877-504-9351

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration
Methyl tert-butyl ether	1634-04-4	0.00 - 15.00 %
Ethyl tert-butyl ether	637-92-3	0.00 - 18.50 %
tert-Amyl methyl ether	994-05-8	0.00 - 18.60 %
Diisopropyl ether	108-20-3	0.00 - 2.00 %
Gasoline		81.40 - 100.00 %

Contains Alkanes, Cycloalkanes, Alkenes and Aromatic Hydrocarbons, Mixture.
Contains 1,2,4 Tri-methyl-benzene, CAS# 95-63-6
Contains Styrene, CAS # 100-42-5.
Contains Benzene, CAS # 71-43-2.
Contains Toluene, CAS # 108-88-3.
Contains Ethylbenzene, CAS # 100-41-4.
Contains n-Hexane, CAS # 110-54-3.
Contains Xylene (Mixed Isomers), CAS # 1330-20-7.
Contains Naphthalene, CAS # 91-20-3.
Contains Cyclo-hexane, CAS# 110-82-7

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance and Odour : Bronze. Clear, bright liquid. Hydrocarbon.

Health Hazards : Harmful: may cause lung damage if swallowed. Irritating to skin. Vapours may cause drowsiness and dizziness. A component or components of this material may cause cancer. This product contains benzene which may cause leukaemia (AML – acute myelogenous leukaemia).

Safety Hazards : Extremely flammable. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Electrostatic charges may be generated during handling. Electrostatic discharge may cause fire.

Environmental Hazards : Toxic to aquatic organisms, may cause long-term adverse

effects in the aquatic environment.

Health Hazards

Inhalation	:	Vapours may cause drowsiness and dizziness.Slightly irritating to respiratory system.
Skin Contact	:	Irritating to skin.
Eye Contact	:	Moderately irritating to eyes.
Ingestion	:	Harmful: may cause lung damage if swallowed.
Other Information	:	Possibility of organ or organ system damage from prolonged exposure; see Chapter 11 for details. Target organ(s): Blood-forming organs. Peripheral nervous system. May cause heritable genetic damage. Possible risk of harm to the unborn child. A component or components of this material may cause cancer. This product contains benzene which may cause leukaemia (AML – acute myelogenous leukaemia).
Signs and Symptoms	:	Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Eye irritation signs and symptoms may include a burning sensation and a temporary redness of the eye. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death. Damage to blood-forming organs may be evidenced by: a) fatigue and anaemia (RBC), b) decreased resistance to infection, and/or excessive bruising and bleeding (platelet effect). Peripheral nerve damage may be evidenced by impairment of motor function (incoordination, unsteady walk, or muscle weakness in the extremities, and/or loss of sensation in the arms and legs). Auditory system effects may include temporary hearing loss and/or ringing in the ears.
Aggravated Medical Condition	:	Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Blood-forming organs. Peripheral nervous system. Skin.
Environmental Hazards	:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Ether oxygenates are significantly more water soluble and less biodegradable than benzene, toluene, ethyl benzene and xylenes (BTEX). Consequently ether oxygenated fuels have the potential to develop into longer plumes than BTEX if released into groundwater. May cause long-term adverse effects in the environment.
Additional Information	:	This product is intended for use in closed systems only.

4. FIRST AID MEASURES

Inhalation	:	Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.
Skin Contact	:	Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.
Eye Contact	:	Flush eyes with water while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision, or swelling persist, transport to the nearest medical facility for additional treatment.
Ingestion	:	If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. 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 (37° C), shortness of breath, chest congestion or continued coughing or wheezing.
Advice to Physician	:	Treat symptomatically. In cases of ingestion, consider gastric lavage. Gastric lavage must only be undertaken after cuffed endotracheal intubation in view of the risk of aspiration. Administration of carbon for medicinal use (carbo medicinalis) may reduce absorption from the digestive tract.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Flash point	:	-40 °C / -40 °F
Explosion / Flammability limits in air	:	1.3 - 7.6 %(V)
Specific Hazards	:	Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Will float and can be reignited on surface water.
Extinguishing Media	:	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable Extinguishing Media	:	Do not use water in a jet.
Protective Equipment for Firefighters	:	Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.
Additional Advice	:	Keep adjacent containers cool by spraying with water. If possible remove containers from the danger zone. If the fire cannot be extinguished the only course of action is to evacuate immediately. Contain residual material at affected sites to prevent material from entering drains (sewers), ditches, and waterways.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with skin, eyes and clothing. Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly. If contamination of sites occurs remediation may require specialist advice. Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Material Safety Data Sheet. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Observe all relevant local and international regulations. Take precautionary measures against static discharges.

Protective measures : Vapour can travel for considerable distances both above and below the ground surface. Underground services (drains, pipelines, cable ducts) can provide preferential flow paths. Do not breathe fumes, vapour. Take measures to minimise the effects on groundwater. Contain residual material at affected sites to prevent material from entering drains (sewers), ditches, and waterways. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.

Clean Up Methods : For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

Additional Advice : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained. Maritime spillages should be dealt with using a Shipboard Oil Pollution Emergency Plan (SOPEP), as required by MARPOL Annex 1 Regulation 26. U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity (refer to Chapter 15) to the National Response Centre at (800) 424-8802. Under Section 311 of the Clean Water Act (CWA) this material is considered an oil. As such, spills into surface waters must be reported to the National Response Centre at (800) 424-8802. This material is covered by EPA's Comprehensive Environmental Response,

Compensation and Liability Act (CERCLA) Petroleum Exclusion. Therefore, releases to the environment may not be reportable under CERCLA.

7. HANDLING AND STORAGE

General Precautions : Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Air-dry contaminated clothing in a well-ventilated area before laundering. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Prevent spillages. Turn off all battery operated portable electronic devices (examples include: cellular phones, pagers and CD players) before operating gasoline pump. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse. For comprehensive advice on handling, product transfer, storage and tank cleaning refer to the product supplier. Do not use as a cleaning solvent or other non-motor fuel uses.

Handling : When using do not eat or drink. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Never siphon by mouth. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Avoid exposure. Obtain special instructions before use. Not expected to be a health hazard when used under normal conditions.

Storage : Drum and small container storage: Keep containers closed when not in use. Drums should be stacked to a maximum of 3 high. Use properly labelled and closeable containers. 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. Take suitable precautions when opening sealed containers, as pressure can build up during storage. Tank storage: 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.

Product Transfer : Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<= 1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. 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.

Recommended Materials : For containers, or container linings use mild steel, stainless steel. Aluminium may also be used for applications where it does not present an unnecessary fire hazard. Examples of suitable materials are: high density polyethylene (HDPE), polypropylene (PP), and Viton (FKM), which have been specifically tested for compatibility with this product. For container linings, use amine-adduct cured epoxy paint. For seals and gaskets use: graphite, PTFE, Viton A, Viton B.

Unsuitable Materials : Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Examples of materials to avoid are: natural rubber (NR), nitrile rubber (NBR), ethylene propylene rubber (EPDM), polymethyl methacrylate (PMMA), polystyrene, polyvinyl chloride (PVC), polyisobutylene. However, some may be suitable for glove materials.

Container Advice : Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers. Gasoline containers must not be used for storage of other products.

Additional Information : Ensure that all local regulations regarding handling and storage facilities are followed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Material	Source	Type	ppm	mg/m3	Notation
Cyclohexane	ACGIH	TWA	100 ppm		
Cyclohexane	OSHA Z1	PEL	300 ppm	1,050 mg/m3	
Cyclohexane	OSHA Z1A	TWA	300 ppm	1,050 mg/m3	
n-hexane	ACGIH	TWA	50 ppm		
n-hexane	ACGIH	SKIN_DES			Can be absorbed through the skin.
n-hexane	OSHA Z1	PEL	500 ppm	1,800 mg/m3	
n-hexane	OSHA Z1A	TWA	50 ppm	180 mg/m3	
Ethylbenzene	ACGIH	TWA	100 ppm		
Ethylbenzene	ACGIH	STEL	125 ppm		
Ethylbenzene	OSHA Z1	PEL	100 ppm	435 mg/m3	
Ethylbenzene	OSHA Z1A	TWA	100 ppm	435 mg/m3	
Ethylbenzene	OSHA Z1A	STEL	125 ppm	545 mg/m3	
Benzene	ACGIH	TWA	0.5 ppm		
Benzene	ACGIH	STEL	2.5 ppm		

Benzene	ACGIH	SKIN_DES			Can be absorbed through the skin.
Benzene	OSHA	REF			
Benzene	OSHA	TWA	1 ppm		
Benzene	OSHA	STEL	5 ppm		
Benzene	OSHA	OSHA_ACT	0.5 ppm		
Benzene	OSHA Z1A	TWA	1 ppm		
Benzene	OSHA Z1A	STEL	5 ppm		
Styrene	ACGIH	TWA	20 ppm		
Styrene	ACGIH	STEL	40 ppm		
Styrene	OSHA Z1A	TWA	50 ppm	215 mg/m3	
Styrene	OSHA Z1A	STEL	100 ppm	425 mg/m3	
1,2,4-trimethylbenzene	ACGIH	TWA	25 ppm		
1,2,4-trimethylbenzene	OSHA Z1A	TWA	25 ppm	125 mg/m3	
Toluene	ACGIH	TWA	20 ppm		
Toluene	ACGIH	SKIN_DES			Can be absorbed through the skin.
Toluene	OSHA Z1A	TWA	100 ppm	375 mg/m3	
Toluene	OSHA Z1A	STEL	150 ppm	560 mg/m3	
Toluene	SHELL IS	TWA	50 ppm		
Xylene	ACGIH	TWA	100 ppm		
Xylene	ACGIH	STEL	150 ppm		
Xylene	OSHA Z1	PEL	100 ppm	435 mg/m3	
Xylene	OSHA Z1A	TWA	100 ppm	435 mg/m3	
Xylene	OSHA Z1A	STEL	150 ppm	655 mg/m3	
Diisopropyl ether	ACGIH	TWA	250 ppm		
Diisopropyl ether	ACGIH	STEL	310 ppm		
Diisopropyl ether	OSHA Z1	PEL	500 ppm	2,100 mg/m3	
Diisopropyl ether	OSHA Z1A	TWA	500 ppm	2,100 mg/m3	
tert-Amyl methyl ether	ACGIH	TWA	20 ppm		
Ethyl tert-butyl ether	ACGIH	TWA	5 ppm		
Methyl tert-butyl ether	ACGIH	TWA	50 ppm		
Gasoline, low boiling point naphtha	ACGIH	TWA	300 ppm		

Gasoline, low boiling point naphtha	ACGIH	STEL	500 ppm		
Naphthalene	ACGIH	TWA	10 ppm		
Naphthalene	ACGIH	STEL	15 ppm		
Naphthalene	ACGIH	SKIN_DES			Can be absorbed through the skin.
Naphthalene	OSHA Z1	PEL	10 ppm	50 mg/m3	
Naphthalene	OSHA Z1A	TWA	10 ppm	50 mg/m3	
Naphthalene	OSHA Z1A	STEL	15 ppm	75 mg/m3	

Additional Information : Skin notation means that significant exposure can also occur by absorption of liquid through the skin and of vapour through the eyes or mucous membranes. Shell has adopted as Interim Standards the OSHA Z1A values that were established in 1989 and later rescinded.

Exposure Controls : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Use sealed systems as far as possible. Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Local exhaust ventilation is recommended. Eye washes and showers for emergency use.

Personal Protective Equipment : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Respiratory Protection : If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. 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. All respiratory protection equipment and use must be in accordance with local regulations. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Hand Protection : Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. Suitability and

		durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced.
Eye Protection	:	Chemical splash goggles (chemical monogoggles).
Protective Clothing	:	Chemical resistant gloves/gauntlets, boots, and apron (where risk of splashing).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Bronze. Clear, bright liquid.
Odour	:	Hydrocarbon.
Freezing Point	:	-58 °C / -72 °F
Flash point	:	-40 °C / -40 °F
Explosion / Flammability limits in air	:	1.3 - 7.6 %(V)
Specific gravity	:	0.72 - 0.76
Water solubility	:	Negligible.
Vapour density (air=1)	:	3.5

10. STABILITY AND REACTIVITY

Stability	:	Stable under normal conditions of use.
Conditions to Avoid	:	Avoid heat, sparks, open flames and other ignition sources.
Materials to Avoid	:	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 and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment	:	Information given is based on product testing, and/or similar products, and/or components.
Acute Oral Toxicity	:	Low toxicity: LD50 >2000 mg/kg , Rat Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Acute Dermal Toxicity	:	Low toxicity: LD50 >2000 mg/kg , Rabbit
Acute Inhalation Toxicity	:	Low toxicity: LC50 >20 mg/l / 1 h, Rat High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Skin Irritation	:	Irritating to skin.
Eye Irritation	:	Moderately irritating to eyes (but insufficient to classify).
Respiratory Irritation	:	Based on human experience, breathing of vapours or mists may cause a temporary burning sensation to nose, throat and lungs.
Sensitisation	:	Not a skin sensitiser.

Repeated Dose Toxicity	:	Kidney: caused kidney effects in male rats which are not considered relevant to humans Blood-forming organs: repeated exposure affects the bone marrow. (Benzene) Peripheral nervous system: repeated exposure causes peripheral neuropathy in animals. (n-hexane)
Mutagenicity	:	May cause heritable genetic damage. (Benzene) Mutagenicity studies on gasoline and gasoline blending streams have shown predominantly negative results.
Carcinogenicity	:	Known human carcinogen. (Benzene) May cause leukaemia (AML - acute myelogenous leukaemia). (Benzene) Inhalation exposure to mice causes liver tumours, which are not considered relevant to humans.

Material	:	**Carcinogenicity Classification**
Gasoline, low boiling point naphtha	:	ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans.
Gasoline, low boiling point naphtha	:	IARC 2B: Possible carcinogen.
Xylene	:	ACGIH Group A4: Not classifiable as a human carcinogen.
Xylene	:	IARC 3: Classification not possible from current data.
Toluene	:	ACGIH Group A4: Not classifiable as a human carcinogen.
Toluene	:	IARC 3: Classification not possible from current data.
Methyl tert-butyl ether	:	ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans.
Methyl tert-butyl ether	:	IARC 3: Classification not possible from current data.
Benzene	:	ACGIH Group A1: Confirmed human carcinogen.
Benzene	:	NTP: Known carcinogen.
Benzene	:	IARC 1: Human carcinogen.
Benzene	:	OSHASP: Cancer hazard.
Ethylbenzene	:	ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans.
Ethylbenzene	:	IARC 2B: Possible carcinogen.
Naphthalene	:	NTP: Anticipated carcinogen.
Naphthalene	:	IARC 2B: Possible carcinogen.
Styrene	:	ACGIH Group A4: Not classifiable as a human carcinogen.
Styrene	:	IARC 2B: Possible carcinogen.

Reproductive and Developmental Toxicity	:	Causes foetotoxicity at doses which are maternally toxic. (Toluene) Causes adverse effects on the foetus based on animal studies. (Toluene) Inhalation of high concentrations of gasoline vapour containing MTBE produced a very low incidence of rare birth defects (ventral midline closure failure) in mice. Many case studies involving abuse during pregnancy indicate that toluene can cause birth defects, growth retardation and learning difficulties. (Toluene)
Additional Information	:	Exposure to very high concentrations of similar materials has been associated with irregular heart rhythms and cardiac arrest.

Prolonged and repeated exposures to high concentrations have resulted in hearing loss in rats. Solvent abuse and noise interaction in the work environment may cause hearing loss. (Toluene)
Abuse of vapours has been associated with organ damage and death. (Toluene)
Myelodysplastic syndrome (MDS) was observed in individuals exposed to very high levels (50 ppm to 300 ppm range) of benzene over a long period of time in the workplace. The relevance of these results to lower levels of exposure is not known. (Benzene)

12. ECOLOGICAL INFORMATION

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.

Acute Toxicity : Toxic: LL/EL/IL50 1-10 mg/l (to aquatic organisms) (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract).

Mobility : Floats on water. Evaporates within a day from water or soil surfaces. Large volumes may penetrate soil and could contaminate groundwater. Ether oxygenates are significantly more water soluble and less biodegradable than benzene, toluene, ethyl benzene and xylenes (BTEX). Consequently ether oxygenated fuels have the potential to develop into longer plumes than BTEX if released into groundwater. MTBE degradation may result in the formation of tert-Butyl Alcohol (TBA). Contains volatile constituents.

Persistence/degradability : Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment. Persists under anaerobic conditions. The volatile constituents will oxidize rapidly by photochemical reactions in air.

Bioaccumulation : Contains constituents with the potential to bioaccumulate.

Other Adverse Effects : Films formed on water may affect oxygen transfer and damage organisms.

13. DISPOSAL CONSIDERATIONS

Material Disposal : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand. Do not dispose into the environment,

		in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination.
Container Disposal	:	Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not, puncture, cut, or weld uncleaned drums. Send to drum recoverer or metal reclaimer. Do not pollute the soil, water or environment with the waste container.
Local Legislation	:	Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

14. TRANSPORT INFORMATION

US Department of Transportation Classification (49CFR)

Identification number	UN 1203
Proper shipping name	Gasoline
Class / Division	3
Packing group	II
Emergency Response Guide No. .	128
Additional Information	Oil: This product is an oil under 49CFR (DOT) Part 130. If shipped by rail or highway in a tank with a capacity of 3500 gallons or more, it is subject to these requirements. Mixtures or solutions containing 10% or more of this product may also be subject to this rule.

IMDG

Identification number	UN 1203
Proper shipping name	GASOLINE
Class / Division	3
Packing group	II
Marine pollutant:	No

IATA (Country variations may apply)

Identification number	UN 1203
Proper shipping name	Gasoline
Class / Division	3
Packing group	II

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Federal Regulatory Status

Comprehensive Environmental Release, Compensation & Liability Act (CERCLA)

Conventional Gasoline with Ether ()	
Gasoline, low boiling point naphtha ()	Reportable quantity: 100 lbs
Xylene (1330-20-7)	Reportable quantity: 100 lbs
Toluene (108-88-3)	Reportable quantity: 1000 lbs
Methyl tert-butyl ether (1634-04-4)	Reportable quantity: 1000 lbs
Benzene (71-43-2)	Reportable quantity: 10 lbs
Ethylbenzene (100-41-4)	Reportable quantity: 1000 lbs
n-hexane (110-54-3)	Reportable quantity: 5000 lbs
Diisopropyl ether (108-20-3)	Reportable quantity: 100 lbs
Naphthalene (91-20-3)	Reportable quantity: 100 lbs
Cyclohexane (110-82-7)	Reportable quantity: 1000 lbs
Styrene (100-42-5)	Reportable quantity: 1000 lbs

Shell classifies this material as an "oil" under the CERCLA Petroleum Exclusion, therefore releases to the environment are not reportable under CERCLA.

Clean Water Act (CWA) Section 311

Xylene (1330-20-7)	Reportable quantity: 100 lbs
Toluene (108-88-3)	Reportable quantity: 1000 lbs
Benzene (71-43-2)	Reportable quantity: 10 lbs
Ethylbenzene (100-41-4)	Reportable quantity: 1000 lbs
Naphthalene (91-20-3)	Reportable quantity: 100 lbs
Cyclohexane (110-82-7)	Reportable quantity: 1000 lbs
Styrene (100-42-5)	Reportable quantity: 1000 lbs

Under Section 311 of the Clean Water Act (CWA) this material is considered an oil. As such,

spills into surface waters must be reported to the National Response Centre at (800) 424-8802.

SARA Hazard Categories (311/312)
Immediate (Acute) Health Hazard. Delayed (Chronic) Health Hazard. Fire Hazard.

SARA Toxic Release Inventory (TRI) (313)

Xylene (1330-20-7)	25.00%
Toluene (108-88-3)	25.00%
Methyl tert-butyl ether (1634-04-4)	15.00%
1,2,4-trimethylbenzene (95-63-6)	5.00%
Benzene (71-43-2)	4.90%
Ethylbenzene (100-41-4)	4.50%
n-hexane (110-54-3)	3.00%
Naphthalene (91-20-3)	1.00%
Cyclohexane (110-82-7)	1.00%
Styrene (100-42-5)	1.00%

State Regulatory Status

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

This product contains a chemical known to the State of California to cause cancer.
Known to the State of California to cause birth defects or other reproductive harm.

New Jersey Right-To-Know Chemical List

Xylene (1330-20-7) 25.00%	Listed.
Toluene (108-88-3) 25.00%	Listed.
Methyl tert-butyl ether (1634-04-4) 15.00%	Listed.
1,2,4-trimethylbenzene (95-63-6) 5.00%	Listed.
Benzene (71-43-2) 4.90%	Listed.
Ethylbenzene (100-41-4) 4.50%	Listed.
n-hexane (110-54-3) 3.00%	Listed.
Diisopropyl ether (108-20-3) 2.00%	Listed.
Naphthalene (91-20-3) 1.00%	Listed.
Cyclohexane (110-82-7) 1.00%	Listed.
Styrene (100-42-5) 1.00%	Listed.

Pennsylvannia Right-To-Know Chemical List

Gasoline, low boiling point naphtha () 100.00%	Listed.
Xylene (1330-20-7) 25.00%	Environmental hazard. Listed.
Toluene (108-88-3) 25.00%	Environmental hazard. Listed.
Methyl tert-butyl ether (1634-04-4) 15.00%	Environmental hazard. Listed.
1,2,4-trimethylbenzene (95-63-6) 5.00%	Environmental hazard. Listed.
Benzene (71-43-2) 4.90%	Special hazard. Environmental hazard. Listed.
Ethylbenzene (100-41-4) 4.50%	Environmental hazard. Listed.
n-hexane (110-54-3) 3.00%	Listed.
Diisopropyl ether (108-20-3) 2.00%	Listed.
Naphthalene (91-20-3) 1.00%	Environmental hazard. Listed.
Cyclohexane (110-82-7) 1.00%	Environmental hazard. Listed.
Styrene (100-42-5) 1.00%	Environmental hazard. Listed.

16. OTHER INFORMATION

Additional Information	:	This document contains important information to ensure the safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters.
NFPA Rating (Health, Fire, Reactivity)	:	1, 3, 0
MSDS Version Number	:	2.
MSDS Effective Date	:	07/25/2007
MSDS Revisions	:	A vertical bar (|) in the left margin indicates an amendment from the previous version.
MSDS Regulation	:	The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
MSDS Distribution	:	The information in this document should be made available to all who may handle the product.
Disclaimer	:	The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.