



MATERIAL SAFETY DATA SHEET

Gasoline Reformulated with Ethanol

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Gasoline Reformulated with Ethanol
Synonyms: Arizona Clean Burning Gasoline (CBG) (All Grades)
CARB Gasoline with Ethanol (All Grades)
Conventional Unleaded Gasoline with Ethanol (All Grades)
Reformulated Gasoline with Ethanol (All Grades)

Intended Use: Fuel
Chemical Family: Petroleum Hydrocarbon

Responsible Party: ConocoPhillips
600 N. Dairy Ashford
Houston, Texas 77079-1175
800-762-0942
MSDS@conocophillips.com

MSDS Information:

Customer Service: 800-527-5476
Technical Information: 800-527-5476

Emergency Overview

24 Hour Emergency Telephone Numbers:

Spill, Leak, Fire or Accident Call CHEMTREC:
North America: (800) 424-9300
Others: (703) 527-3887 (collect)

California Poison Control System: (800) 356-3219

Health Hazards/Precautionary Measures: Cancer hazard. Contains benzene. Causes eye and skin irritation. Aspiration hazard if swallowed. Can enter lungs and cause damage. Use with ventilation adequate to keep exposure below recommended limits, if any. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Wear appropriate personal protective equipment. Do not taste or swallow.

Physical Hazards/Precautionary Measures: Extremely flammable liquid and vapor. Vapor can cause flash fire. Keep away from heat, sparks, flames, static electricity or other sources of ignition.

Appearance: Clear to amber
Physical Form: Liquid
Odor: Gasoline

NFPA 704 Hazard Class:

Health: 1 (Slight)
Flammability: 3 (High)
Instability: 0 (Least)

2. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS					
Component / CAS No:	Concentration (wt %)	ACGIH:	OSHA:	NIOSH:	Other:
Gasoline NONE	> 90	300 ppm TWA 890 mg/m ³ TWA 500 ppm STEL 1480 mg/m ³ STEL	NE	NE	---
Xylenes 1330-20-7	0 - 21	100 ppm TWA 434 mg/m ³ TWA 150 ppm STEL 651 mg/m ³ STEL	100 ppm TWA 435 mg/m ³ TWA	900 ppm IDLH	---
Toluene 108-88-3	0 - 15	50 ppm TWA SKIN	200 ppm TWA 300 ppm CEIL 500 ppm 10 min. peak	500 ppm IDLH	---
Ethanol 64-17-5	≤ 10	1000 ppm TWA 1880 mg/m ³ TWA	1000 ppm TWA 1900 mg/m ³ TWA	NE	---
Ethyl Benzene 100-41-4	0 - 5	100 ppm TWA 434 mg/m ³ TWA 125 ppm STEL 543 mg/m ³ STEL	100 ppm TWA 435 mg/m ³ TWA	800 ppm IDLH	---
1,2,4-Trimethyl Benzene 95-63-6	0 - 5	25 ppm TWA 123 mg/m ³ TWA	NE	NE	Mixed Isomers
Benzene 71-43-2	0 - 5	0.5 ppm TWA-SKIN 2.5 ppm STEL-SKIN	1 ppm TWA ppm STEL	500 ppm IDLH	---
n-Hexane 110-54-3	0 - 4	50 ppm TWA SKIN	500 ppm TWA	1100 ppm IDLH	---
Cyclohexane 110-82-7	0 - 4	100 ppm TWA	300 ppm TWA 1050 mg/m ³ TWA	1300 ppm IDLH	---

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

1%=10,000 PPM.
NE=Not Established

Contains benzene. If exposure concentrations exceed the 0.5 ppm action level, OSHA requirements for personal protective equipment, exposure monitoring, and training may apply (29CFR1910.1028). Also see Section 4.

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye: Eye irritant. Contact may cause stinging, watering, redness, and swelling.

Skin: Skin irritant. Contact may cause redness, itching, burning, and skin damage. Prolonged or repeated contact can worsen irritation by causing drying and cracking of the skin, leading to dermatitis (inflammation). Not acutely toxic by skin absorption, but prolonged or repeated skin contact may be harmful (see Section 11).

Inhalation (Breathing): Low to moderate degree of toxicity by inhalation.

Ingestion (Swallowing): Low to moderate degree of toxicity by ingestion. ASPIRATION HAZARD - This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage.

Signs and Symptoms: Effects of overexposure may include irritation of the digestive tract, irritation of the respiratory tract, nausea, vomiting, flushing, blurred vision, drunkenness, stupor, tremors, respiratory failure, transient excitation followed by signs of nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue), unconsciousness, convulsions, death.

Cancer: This material is a possible cancer hazard (see Sections 11 and 15).

Target Organs: Overexposure to a component may cause injury to the central nervous system, stomach, liver, male reproductive system, heart.

Developmental: A component is a potential hazard to the fetus (see Section 11).

Other Comments: Most adverse health effects associated with ethanol, a component of this material, are related to the chronic ingestion of alcoholic beverages. Alcoholism has been associated with liver, stomach, heart, and nervous system damage, cancer, adverse reproductive effects, and effects on the developing fetus. Many of these effects may be related to metabolic changes that result from constantly high blood levels of alcohol. This exposure pattern is significantly different from that of persons handling industrial ethanol in the workplace or from refueling cars with gasoline containing ethanol.

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as Solvent or Painters' Syndrome). Intentional misuse by deliberately concentrating and inhaling this material may be harmful or fatal.

Pre-Existing Medical Conditions: Conditions aggravated by exposure may include skin disorders, respiratory (asthma-like) disorders, liver disorders.

Exposure to high concentrations of this material may increase the sensitivity of the heart to certain drugs. Persons with pre-existing heart disorders may be more susceptible to this effect (see Section 4 - Note to Physicians).

4. FIRST AID MEASURES

Eye: Move victim away from exposure and into fresh air. If irritation or redness develops, flush eyes with clean water and seek medical attention. For direct contact, hold eyelids apart and flush the affected eye(s) with clean water for at least 15 minutes. Seek medical attention.

Skin: Remove contaminated shoes and clothing, and flush affected area(s) with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develops, seek medical attention.

Inhalation (Breathing): If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Ingestion (Swallowing): Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing. Seek medical attention.

Notes to Physician: Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to high concentrations of hydrocarbon solvents (e.g., in enclosed spaces or with deliberate abuse). The use of other drugs with less arrhythmogenic potential should be considered. If sympathomimetic drugs are administered, observe for the development of cardiac arrhythmias.

Federal regulations (29 CFR 1910.1028) specify medical surveillance programs for certain exposures to benzene above the action level or PEL (specified in Section (i)(1)(i) of the Standard). In addition, employees exposed in an emergency situation shall, as described in Section (i)(4)(i), provide a urine sample at the end of the shift for measurement of urine phenol.

5. FIRE-FIGHTING MEASURES

Flammable Properties:

Flash Point:	-49°F / -45°C
Test Method:	Test Method Unknown
OSHA Flammability Class:	Flammable Liquid
LEL%:	1.4
UEL%:	7.6
Autoignition Temperature:	833°F / 444°C

Unusual Fire & Explosion Hazards: This material is extremely flammable and can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe). Vapors may travel considerable distances to a source of ignition where they can ignite, flash back, or explode. May create vapor/air explosion hazard indoors, in confined spaces, outdoors, or in sewers. If container is not properly cooled, it can rupture in the heat of a fire. Vapors are heavier than air and can accumulate in low areas.

Extinguishing Media: Dry chemical, carbon dioxide, or foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters.

Fire Fighting Instructions: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk.

Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

6. ACCIDENTAL RELEASE MEASURES

Extremely flammable. Keep all sources of ignition and hot metal surfaces away from spill/release. The use of explosion-proof electrical equipment is recommended.

Stay upwind and away from spill/release. Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8).

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Use foam on spills to minimize vapors (see Section 5). Spilled material may be absorbed into an appropriate absorbent material.

Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended.

7. HANDLING AND STORAGE

Handling: Open container slowly to relieve any pressure. Bond and ground all equipment when transferring from one vessel to another. Can accumulate static charge by flow or agitation. Can be ignited by static discharge. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-704 and/or API RP 2003 for specific bonding/grounding requirements.

Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Sections 2 and 8).

Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames. Use good personal hygiene practices.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

Storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Post area "No Smoking or Open Flame." Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

Portable Containers: Static electricity may ignite gasoline vapors when filling portable containers. To avoid static buildup do not use a nozzle lock open device. Use only approved containers for the storage of gasoline. Place the container on the ground before filling. Keep the nozzle in contact with the container during filling. Do not fill any portable container in or on a vehicle or marine craft. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), additional engineering controls may be required. Where explosive mixtures may be present, electrical systems safe for such locations must be used (see appropriate electrical codes).

Personal Protective Equipment (PPE):

Respiratory: The use of respiratory protection is advised when concentrations are expected to exceed the established exposure limits (see Section 2). Depending on the airborne concentration, use a respirator with appropriate cartridges (NIOSH certified) or supplied-air equipment.

If benzene values equal or exceed applicable exposure limits the use of respiratory protection should comply with the requirements in OSHA 29 CFR 1910.1028-Benzene.

Skin: The use of gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation, and skin damage (see glove manufacturer literature for information on permeability). Depending on conditions of use, apron and/or arm covers may be necessary.

Eye/Face: Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.

Other Protective Equipment: A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufacturers to confirm the performance of their products.

9. PHYSICAL AND CHEMICAL PROPERTIES

9. PHYSICAL AND CHEMICAL PROPERTIES

Note: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).

Appearance:	Clear to amber
Physical Form:	Liquid
Odor:	Gasoline
Odor Threshold:	No data
pH:	Not applicable
Vapor Pressure (mm Hg):	330-775 @ 100°F
Vapor Density (air=1):	>1
Boiling Point:	80-437°F / 26-225°C
Solubility in Water:	Approximately 10%
Partition Coefficient (n-octanol/water) (Kow):	No data
Specific Gravity:	0.68-0.78 @60°F@ 60°F (15.6°C)
Bulk Density:	5.66-6.50 lbs/gal
Percent Volatile:	100%
Evaporation Rate (nBuAc=1):	>1
Flash Point:	-49°F / -45°C
Test Method:	Test Method Unknown
LEL%:	1.4
UEL%:	7.6
Autoignition Temperature:	833°F / 444°C

10. STABILITY AND REACTIVITY

Stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. Extremely flammable liquid and vapor. Vapor can cause flash fire.

Conditions to Avoid: Avoid all possible sources of ignition (see Sections 5 and 7).

Materials to Avoid (Incompatible Materials): Avoid contact with strong oxidizing agents, strong oxidizing agents such as acids, chlorine, dichromates, or permanganates can cause fire or explosion.

Hazardous Decomposition Products: The use of hydrocarbon fuel in an area without adequate ventilation may result in hazardous levels of combustion products (e.g., oxides of carbon, sulfur and nitrogen, benzene and other hydrocarbons) and/or dangerously low oxygen levels. See Section 11 for additional information on hazards of engine exhaust.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Chronic Data:

Toluene (108-88-3)

Target Organs: Epidemiology studies suggest that chronic occupational overexposure to toluene may damage color vision. Subchronic and chronic inhalation studies with toluene produced kidney and liver damage, hearing loss and central nervous system (brain) damage in laboratory animals. Intentional misuse by deliberate inhalation of high concentrations of toluene has been shown to cause liver, kidney, and central nervous system damage, including hearing loss and visual disturbances.

Developmental: Exposure to toluene during pregnancy has demonstrated limited evidence of developmental toxicity in laboratory animals. The effects seen include decreased fetal body weight and increased skeletal variations in both inhalation and oral studies.

Ethanol (64-17-5)

Carcinogenicity: Ingestion of alcoholic beverages has been classified by IARC as "carcinogenic to humans" (Group 1). Occupational exposures to ethanol and exposures other than by ingestion (i.e., dermal and inhalation) have not been associated with cancer in humans.

Target Organs: Chronic alcoholism has been associated with damage to the liver in humans (e.g., cirrhosis of the liver). Excessive consumption of alcoholic beverages has also been associated with adverse effects on the central nervous system, digestive system, cardiovascular system, and the reproductive system including reduced sperm count and motility and loss of libido in men, abnormal menstrual function, and decreased plasma estradiol and progesterone levels in women.

Developmental: Excessive consumption of alcoholic beverages during pregnancy has been associated with effects on the developing fetus referred to collectively as the fetal alcohol syndrome. The effects most frequently manifested include psychomotor dysfunction, growth retardation and a characteristic cluster of facial anomalies.

Mutagenic Effects: Excessive consumption of alcoholic beverages has been associated with chromosomal aberrations in white blood cells. Depending on the animal species being tested, ethanol may produce chromosomal damage, DNA damage and mutation in both somatic and germ cells.

Ethyl Benzene (100-41-4)

Carcinogenicity: Rats and mice exposed to 0, 75, 250, or 750 ppm ethyl benzene in a two year inhalation study demonstrated limited evidence of kidney, liver, and lung cancer. Ethyl benzene has been listed as a possible human carcinogen by IARC. Ethyl benzene has not been listed as a carcinogen by NTP, or OSHA.

Target Organs: In rats and mice exposed to 0, 75, 250, or 750 ppm ethyl benzene in a two year inhalation study there was mild damage to the kidney (tubular hyperplasia), liver (eosinophilic foci, hypertrophy, necrosis), thyroid (hyperplasia) and pituitary (hyperplasia).

Benzene (71-43-2)

Carcinogenicity: Benzene is known to cause cancer of the blood-forming organs in humans, including acute myelogenous leukemia. It has been identified as a human carcinogen by NTP, IARC and OSHA.

Target Organs: Prolonged or repeated exposures to benzene vapors can cause damage to the blood and blood forming organs, including disorders like leukopenia, thrombocytopenia, and aplastic anemia.

Developmental: Exposure to benzene during pregnancy demonstrated limited evidence of developmental toxicity in laboratory animals. The effects seen include decreased body weight and increased skeletal variations in rodents. Alterations in hematopoiesis have been observed in the fetuses and offspring of pregnant mice.

Mutagenic Effects: Benzene exposure has resulted in chromosomal aberrations in human lymphocytes and animal bone marrow cells, and DNA damage in mammalian cells in vitro.

n-Hexane (110-54-3)

Target Organs: Excessive exposure to n-hexane can result in peripheral neuropathies. The initial symptoms are symmetrical sensory numbness and paresthesias of distal portions of the extremities. Motor weakness is typically observed in muscles of the toes and fingers but may also involve muscles of the arms, thighs and forearms. The onset of these symptoms may be delayed for several months to a year after the beginning of exposure. The neurotoxic properties of n-hexane are potentiated by exposure to methyl ethyl ketone and methyl isobutyl ketone. Prolonged exposure to high concentrations of n-hexane (>1,000 ppm) has resulted in decreased sperm count and degenerative changes in the testes of rats but not those of mice.

Xylenes (1330-20-7)

Target Organs: Rats exposed to 800, 1000 or 1200 ppm 14 hours daily for 6 weeks demonstrated high frequency hearing loss. Another study in rats exposed to 1800 ppm 8 hours daily for 5 days demonstrated middle frequency hearing loss.

Developmental: Both mixed xylenes and the individual isomers produced limited evidence of developmental toxicity in laboratory animals. Inhalation and oral administration of xylene resulted in decreased fetal weight, increased incidences of delayed ossification, skeletal variations and resorptions.

Gasoline (NONE)

Carcinogenicity: Two year inhalation studies of wholly vaporized unleaded gasoline produced increased incidences of kidney tumors in male rats and liver tumors in female mice. Follow-up studies suggest that occurrence of the kidney tumors may be linked to alpha-2-u-globulin nephropathy, and most likely unique to the male rat. Epidemiology data collected from a study of more than 18,000 petroleum marketing and distribution workers showed no increased risk of leukemia, multiple myeloma, or kidney cancer from gasoline exposure. Unleaded gasoline has been identified as a possible carcinogen by IARC. Because solvent extracts of gasoline exhaust particulates caused skin cancer in laboratory animals, IARC has categorized gasoline engine exhaust as a possible human cancer hazard.

Target Organs: A two year inhalation study of wholly vaporized unleaded gasoline produced nephropathy in male rats, characterized by the accumulation of alpha-2-u-globulin in epithelial cells of the proximal tubules, and necrosis and hyperplasia of surrounding cells. Follow-up studies suggest that these changes are unique to the male rat. Although prolonged exposure to n-hexane, a component of gasoline, has resulted in adverse male reproductive effects in experimental animal studies, no adverse male reproductive effects were found in studies conducted with gasoline.

Developmental: No evidence of developmental toxicity was found in pregnant laboratory animals (rats and mice) exposed to up to 9,000 ppm vapor of unleaded gasoline via inhalation.

Acute Data:

Toluene (108-88-3)

Dermal LD50= 14 g/kg (Rabbit)
LC50= 8,000 ppm; 49 g/m³ (4-hr., Rat)
Oral LD50= 2.5 - 7.9 g/kg (Rat)

Ethanol (64-17-5)

Dermal LD50= 9.4 ml/kg (Rabbit)
LC50= 20,000 ppm/10 hr. (Rat)
Oral LD50= 6.2-13.7 g/kg (Rat); LD50 = 6300 mg/kg (Rabbit)

Ethyl Benzene (100-41-4)

Dermal LD50= 17,800 mg/kg (Rabbit)
LC50= 4000 ppm/4 hr.; 13367 ppm (Rat)
Oral LD50= 3500 mg/kg (Rat)

1,2,4-Trimethyl Benzene (95-63-6)

Dermal LD50= No data available
LC50= 18 gm/m³/4hr (Rat)
Oral LD50= 3-6 g/kg (Rat)

Benzene (71-43-2)

Dermal LD50= > 9400 mg/kg (Rabbit)
LC50= 10000 ppm/7hr. (Rat)
Oral LD50= 930 mg/kg (Rat)

n-Hexane (110-54-3)

Dermal LD50= >2,000 mg/kg (Rabbit)
LC50= >3,367 ppm (4-hr., Rat)
Oral LD50= = 25,000 g/kg (Rat); 28.7 g/kg(Rat)

Cyclohexane (110-82-7)

Dermal LD50= >180.2 g/kg (Rabbit)
LC50= 18,500 ppm (Rabbit)
Oral LD50= >12.7 g/kg (Rat)

Xylenes (1330-20-7)

Dermal LD50= >3.16 ml/kg (Rabbit)
LC50= 5000 ppm/4 hr. (Rat)
Oral LD50= 4300 mg/kg (Rat)

Gasoline (NONE)

Dermal LD50= >5 ml/kg (Rabbit)
LC50= 300g/m³/5M (rat, mouse, g.pig)
Oral LD50= 18.75 ml/kg. (Rat)

12. ECOLOGICAL INFORMATION

The individual hydrocarbon components of this material are differentially soluble in water with aromatic hydrocarbons tending to be more water soluble than aliphatic hydrocarbons. If spilled, the more volatile components will evaporate rapidly. Factors such as local environmental conditions (temperature, wind, soil type, mixing or wave action in water, etc), photo-oxidation, biodegradation and adsorption onto suspended sediments, contribute to the weathering of spilled material. Because of their differential solubility, the occurrence of hydrocarbons in groundwater will be at different proportions than the parent material.

The potential for bioaccumulation and/or long term persistence of these materials in the environment is low to non-existent. In laboratory soil column experiments, the half-time of unleaded gasoline was reported as 1.2 to 2.7 days in sand, loam or clay soils. Microorganisms present in sediments and in the water are capable of degrading gasoline and naphtha containing hydrocarbons. Simpler hydrocarbons are more readily degraded than complex molecules. Adaption of bacteria in gasoline-contaminated groundwater to the soluble constituents has been reported.

In general, naphtha streams exhibit some short-term toxicity to freshwater and marine organisms, especially under closed vessel or flow-through exposure conditions in the laboratory. The components most likely causing toxicity are also highly volatile and can be readily biodegraded by microorganisms.

13. DISPOSAL CONSIDERATIONS

This material, if discarded as produced, is not a RCRA "listed" hazardous waste. However, it should be fully characterized for ignitability (D001) and benzene (D018) prior to disposal (40 CFR 261). Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

14. TRANSPORT INFORMATION

DOT

Shipping Description: Gasoline, 3 UN1203, II

Non-Bulk Package Marking: Gasoline, UN1203

Non-Bulk Package Labeling: Flammable

Bulk Package/Placard Marking: Flammable/1203

Packaging - References (Exceptions, Non-Bulk, Bulk): 49 CFR 173.150, 173.202, 173.242

Hazardous Substance: None

Emergency Response Guide: 128

IMDG

Shipping Description: UN1203, Gasoline, 3, II (<-45°C)

Non-Bulk Package Marking: Gasoline, UN 1203

Labels: Flammable

Placards/Marking (Bulk): Flammable/1203

Packaging - Non-Bulk: P001

EMS: F-E, S-E

ICAO/IATA

UN/ID #: UN1203

Proper Shipping Name: Gasoline

Hazard Class/Division: 3

Packing Group: II

Subsidiary risk: None

Non-Bulk Package Marking: Gasoline, UN1203

Labels: Flammable

ERG Code: 3H

14. TRANSPORT INFORMATION

	LTD. QTY.	Passenger Aircraft	Cargo Aircraft Only
Packaging Instruction #:	Y305	305	307
Max. Net Qty. Per Package:	1 L	5 L	60 L

15. REGULATORY INFORMATION

U.S. Regulations:

EPA SARA 311/312 (Title III Hazard Categories)

Acute Health: Yes
Chronic Health: Yes
Fire Hazard: Yes
Pressure Hazard: No
Reactive Hazard: No

SARA - Section 313 and 40 CFR 372:

This material contains the following chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372:

Xylenes.....1330-20-7.....0 - 21%
Toluene.....108-88-3.....0 - 15 %
Ethyl Benzene.....100-41-4.....0 - 5%
1,2,4-Trimethyl Benzene.....95-63-6.....0 - 5%
Benzene.....71-43-2.....0 - 5%
n-Hexane.....110-54-3.....0 - 4%
Cyclohexane.....110-82-7.....0 - 4%

EPA (CERCLA) Reportable Quantity (in pounds):

EPA's Petroleum Exclusion applies to this material - (CERCLA 101(14)).

CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds):

This material contains the following chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372:

-- None Known --

California Proposition 65:

Warning: This material contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

Benzene -- Cancer, Developmental and Reproductive Toxicant
Toluene -- Developmental Toxicant
Unleaded Gasoline (wholly vaporized) -- Cancer

Carcinogen Identification:

Unleaded gasoline has been identified as a carcinogen by IARC. For carcinogenicity information on individual components, see Section 11.

TSCA:

All components are listed on the TSCA inventory.

Canadian Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Domestic Substances List: Listed

WHMIS Hazard Class:

B2 - Flammable Liquids
D2A - Materials Causing Other Toxic Effects - Very Toxic Material
D2B - Materials Causing Other Toxic Effects - Toxic Material

16. OTHER INFORMATION

Issue Date:	28-Feb-2006
Previous Issue Date:	25-Oct-2005
Previous Product Code:	Multiple
Revised Sections or Basis for Revision:	Composition (Section 2)
MSDS Code:	723433

Disclaimer of Expressed and implied Warranties:

The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.