

MATERIAL SAFETY DATA SHEET

MSDS Number: 51163E - 21

24 Hour Emergency Assistance: CHEMTEL (877) 276-7283

General Assistance Number: (877) 276-7285

SECTION 1 PRODUCT IDENTIFICATION

MATERIAL IDENTITY: Regular Unleaded Gasoline (Conventional, CARB and RFG)

PRODUCT CODES: 00315, 00330, 00337, 00351, 00371, 00478, 00781, 00782, 00783, 01002, 01004, 01136, 01141, 01145, 01149, 01182, 01418, 01449, 01453, 02570, 02574, 02583, 02595, 02610, 02616, 02632, 02635, 02738, 02751, 02752, 02754, 04976, 04977, 07437, 07438, 07644, 07671, 07672, 07687, 08601, 08602, 08603, 08604, 26603, 26609, 26614, 26615, 26616, 26619, 26620, 26671, 26770, 26777, 26808, 26814, 26844, 26846, 26847, 26848, 34212, 34215

COMPANY ADDRESS: Equilon Enterprises LLC, P. O. Box 4453, Houston, TX. 77210-4453

SECTION 2 PRODUCT/INGREDIENTS

CAS#	CONCENTRATION	INGREDIENTS
Mixture	100 %volume	Gasoline (Conventional, CARB and RFG)
Mixture	0 - 49.99 %volume	Miscellaneous Hydrocarbons
1330-20-7	0 - 24.99 %volume	Xylene, mixed isomers
108-88-3	0 - 24.99 %volume	Toluene
95-63-6	0 - 4.99 %volume	1,2,4-Trimethyl Benzene (Pseudocumene)
100-42-5	0 - 3.99 %volume	Styrene
71-43-2	0 - 3.99 %volume	Benzene
100-41-4	0 - 2.99 %volume	Ethyl Benzene
110-54-3	0 - 2.99 %volume	Hexane
110-82-7	0 - 0.99 %volume	Cyclohexane
91-20-3	0 - 0.99 %volume	Naphthalene
1634-04-4	0 - 14.99 %volume	Methyl Tert-Butyl Ether (MTBE)
637-92-3	0 - 18.49 %volume	Ethyl Tert-Butyl Ether (ETBE)
994-05-8	0 - 18.59 %volume	Tert-Amyl Methyl Ether (TAME)
108-20-3	0 - 1.99 %volume	Diisopropyl Ether (DIPE)

NOTE: Content of Gasoline components will vary; Individual components may be present from trace amounts up to the maximum shown.

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance & Odor: Bronze color, clear & bright liquid. Hydrocarbon odor.
Health Hazards: May be harmful or fatal if swallowed. Do not induce vomiting.
May cause aspiration pneumonitis. May cause CNS depression.
Physical Hazards: Material is extremely flammable and heavier than air.
Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.
NFPA Rating (Health, Fire, Reactivity): 1, 3, 0
Hazard Rating: Least - 0 Slight - 1 Moderate - 2 High - 3
Extreme - 4

Inhalation:

May cause irritation to the nose, throat and respiratory tract. Breathing of high vapor concentrations may cause CNS depression, evidenced by dizziness, light-headedness, headache, nausea, drowsiness, and loss of coordination. Continued inhalation may result in unconsciousness.

Eye Irritation:

May be irritating to the eyes causing a burning sensation, redness, swelling and/or blurred vision.

Skin Contact:

May be irritating to the skin causing a burning sensation, redness and/or swelling. Prolonged or repeated skin contact can cause defatting and drying of the skin which may result in a burning sensation and a dried, cracked appearance.

Ingestion:

This material may be harmful or fatal if swallowed. Ingestion may result in vomiting; aspiration (breathing) of vomitus into lungs must be avoided as even small quantities may result in aspiration pneumonitis. Generally considered to have a low order of acute oral toxicity.

Other Health Effects:

Carcinogenic in animal tests. Gasoline has been tested by API in a long-term inhalation test in mice and rats. There was an increased incidence of liver cancer in female mice. Male rats had a dose related increase in kidney tumors. This effect was due to formation of alpha-2u-globulin in the rats. This material is not formed in humans and is therefore not considered relevant. It is probable that the material causes cancer in laboratory animals. Material may adversely effect male reproductive performance based on testing in laboratory animals.

This material and/or components may cause the following effects:

Developmental Toxicity, Genotoxicity, Immunotoxicity, Reproductive Toxicity

Primary Target Organs:

The following organs and/or organ systems may be damaged by overexposure to this material and/or its components.

Cardiovascular System, Blood/Blood Forming Organs, Kidney, Liver, Nervous

System

Signs and Symptoms:

Irritation as noted above. Aspiration pneumonitis may be evidenced by coughing, labored breathing and cyanosis (bluish skin); in severe cases death may occur. Damage to blood-forming organs may be evidenced by: a) easy fatigability and pallor (RBC), b) decreased resistance to infection (WBC effect), c) excessive bruising and bleeding (platelet effect). Kidney damage may be indicated by changes in urine output or appearance, pain upon urination or in the lower back or general edema (swelling from fluid retention). Liver damage may be indicated by loss of appetite, jaundice (yellowish skin and eye color), fatigue and sometimes pain and swelling in the upper right abdomen.

For additional health information, refer to section 11.

SECTION 4 FIRST AID MEASURES

Inhalation:

Move victim to fresh air and provide oxygen if breathing is difficult. Get medical attention. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

Skin:

Remove contaminated clothing. Flush with large amounts of water for at least 15 minutes and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

Eye:

Flush eyes with large amounts of water for at least 15 minutes. If redness, burning, blurred vision or swelling persist, transport to nearest medical facility for additional treatment.

Ingestion:

DO NOT take internally. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Get medical attention. In general no treatment is necessary unless large quantities are swallowed, however, get medical advice. Have victim rinse mouth out with water, then drink sips of water to remove taste from mouth. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Note to Physician:

If more than 2.0ml/kg body weight has been ingested and vomiting has not occurred, emesis should be induced with supervision. Keep victim's head below hips to prevent aspiration. If symptoms such as loss of gag reflex, convulsions, or unconsciousness occur before emesis, gastric lavage using a cuffed endotracheal tube should be considered.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point [Method]: -40 °F/-40 °C [Tagliabue Closed Cup]
Flammability in Air: 1.3 - 7.6 %volume

Extinguishing Media:

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water. Material will float and can be re-ignited on surface of water.

Fire Fighting Instructions:

DANGER! EXTREMELY FLAMMABLE. Clear fire area of all non-emergency personnel. Only enter confined fire space with full bunker gear, including a positive pressure, NIOSH-approved, self-contained breathing apparatus. Cool surrounding equipment, fire-exposed containers and structures with water. Container areas exposed to direct flame contact should be cooled with large quantities of water (500 gallons water per minute flame impingement exposure) to prevent weakening of container structure.

Unusual Fire Hazards:

Vapors are heavier than air accumulating in low areas and traveling along the ground away from the handling site. Do not weld, heat or drill on or near container. However , if emergency situations require drilling, only trained emergency personnel should drill.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures:

DANGER! EXTREMELY FLAMMABLE! Eliminate potential sources of ignition. Handling equipment must be bonded and grounded to prevent sparking.

Spill Management:

Dike and contain spill.

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

Reporting:

CERCLA: Product is covered by EPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) petroleum exclusion. Releases to air,

land, or water are not reportable under CERCLA (Superfund).

CWA: This product is an oil as defined under Section 311 of EPA's Clean Water Act (CWA). Spills into or leading to surface waters that cause a sheen must be reported to the National Response Center, 1-800-424-8802.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures:

Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet. Launder contaminated clothing before reuse. Properly dispose of contaminated leather articles such as shoes or belts that cannot be decontaminated. Avoid heat, open flames, including pilot lights, and strong oxidizing agents. Use explosion-proof ventilation to prevent vapor accumulation. Ground all handling equipment to prevent sparking. Do not siphon gasoline by mouth; harmful or fatal if swallowed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

For use as a motor fuel only. Do not use as a cleaning solvent or for other non-motor fuel uses.

Handling:

Surfaces that are sufficiently hot may ignite liquid material. Material is extremely flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.

Keep containers closed when not in use. **WARNING!** The flow of gasoline through the pump nozzle can produce static electricity, which may cause a fire if gasoline is pumped into an ungrounded container. To avoid static buildup, place approved container on the ground. Do not fill container in vehicle or truck bed. Keep nozzle in contact with container while filling. Do not use automatic pump handle (latch-open) device. Turn off all battery operated portable electronic devices (examples include: cellular phones, pagers and CD players) before operating gasoline pump. Use only with adequate ventilation.

Storage:

Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

Keep liquid and vapor away from heat, sparks and flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors have dissipated. Use explosion-proof ventilation to prevent vapor accumulation while in use.

Container Warnings:

Keep containers closed when not in use. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or

perform similar operations on or near containers.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Benzene ppmv Notation: Skin	ACGIH TLV	TWA: 0.5 ppmv	STEL: 2.5
Benzene ppmv	OSHA PEL	TWA: 1 ppmv	STEL: 5
Cyclohexane	ACGIH TLV	TWA: 300 ppmv	
Cyclohexane	OSHA PEL	TWA: 300 ppmv	
Ethyl Benzene ppmv	ACGIH TLV	TWA: 100 ppmv	STEL: 125
Ethyl Benzene	OSHA PEL	TWA: 100 ppmv	
Ethyl Benzene ppmv	OSHA PEL - 1989 (revoked)	TWA: 100 ppmv	STEL: 125
Gasoline ppmv	ACGIH TLV	TWA: 300 ppmv	STEL: 500
Gasoline ppmv	OSHA PEL - 1989 (revoked)	TWA: 300 ppmv	STEL: 500
Isopropyl ether ppmv	ACGIH TLV	TWA: 250 ppmv	STEL: 310
Isopropyl ether	OSHA PEL	TWA: 500 ppmv	
Methyl T-Butyl Ether	ACGIH TLV	TWA: 40 ppmv	
N-Hexane	OSHA PEL	TWA: 50 ppmv	
N-Hexane	OSHA PEL - 1989 (revoked)	TWA: 50 ppmv	
Naphthalene ppmm	ACGIH TLV	TWA: 10 ppmm	STEL: 15
Naphthalene	OSHA PEL	TWA: 10 ppmv	
Naphthalene ppmv	OSHA PEL - 1989 (revoked)	TWA: 10 ppmv	STEL: 15
Styrene ppmv	ACGIH TLV	TWA: 20 ppmv	STEL: 40
Styrene 200 ppmv	OSHA PEL	TWA: 100 ppmv	Ceiling:
Styrene ppmv	OSHA PEL - 1989 (revoked)	TWA: 50 ppmv	STEL: 100
Styrene, monomer ppmv Notation: Embryo-Fetus Policy	SHELL PEL - 1989 (revoked)	TWA: 50 ppmv	STEL: 100
Toluene Skin	ACGIH TLV	TWA: 50 ppmv	Notation:
Toluene 300 ppmv	OSHA PEL	TWA: 200 ppmv	Ceiling:
Toluene ppmv	OSHA PEL - 1989 (revoked)	TWA: 100 ppmv	STEL: 150
Toluene	SHELL SIS	TWA: 50 ppmv	
Trimethyl Benzene	ACGIH TLV	TWA: 25 ppmv	
Trimethyl Benzene	OSHA PEL - 1989 (revoked)	TWA: 25 ppmv	
Trimethyl Benzene	SHELL PEL - 1989 (revoked)	TWA: 25 ppmv	

xylene (o-, m-, p- isomers) OSHA PEL TWA: 100 ppmv
xylene (o-, m-, p- isomers) OSHA PEL - 1989(revoked) TWA: 100 ppmv STEL: 150
ppmv
Xylene (o-, m-, p-isomers) ACGIH TLV TWA: 100 ppmv STEL: 150
ppmv

EXPOSURE CONTROLS

Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.

PERSONAL PROTECTION

Personal protective equipment (PPE) selections vary based on potential exposure conditions such as handling practices, concentration and ventilation. Information on the selection of eye, skin and respiratory protection for use with this material is provided below.

Eye Protection:

Chemical Goggles - If liquid contact is likely.

Skin Protection:

Use protective clothing which is chemically resistant to this material. Selection of protective clothing depends on potential exposure conditions and may include gloves, boots, suits and other items. The selection(s) should take into account such factors as job task, type of exposure and durability requirements.

Published literature, test data and/or glove and clothing manufacturers indicate the best protection is provided by:

Neoprene, or Nitrile Rubber, or Polyvinyl Alcohol (PVA)

Respiratory Protection:

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Types of respirator(s) to be considered in the selection process include:
Supplied-Air Respirator. Air-Purifying Respirator for Organic Vapors.
Self-contained breathing apparatus.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odor: Bronze color, clear & bright liquid. Hydrocarbon odor.

Substance Chemical Family: Hydrocarbon

Flammability in Air: 1.3 - - 7.6 %volume

Flash Point: -40 °F [Tagliabue Closed Cup]

Freezing Point: -72 °F
Solubility (in Water): Negligible
Specific Gravity: 0.72 - - 0.76
Stability: Stable
Vapor Density: 3.5
Vapor Pressure: 7 - - 14.5 psia [Reid]
Viscosity: < 1.4 cSt Typical @ 100 °F
Volatility: 100 %volume

SECTION 10 REACTIVITY AND STABILITY

Stability:
Material is stable under normal conditions.

Conditions to Avoid:
Avoid heat, sparks, open flames and other ignition sources.

Materials to Avoid:
Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products:
Thermal decomposition products are highly dependent on combustion conditions. A complex mixture of airborne solids, liquids and gases will evolve when this material undergoes pyrolysis or combustion. Aldehydes, Carbon Monoxide, Carbon Dioxide, Peroxide, Styrene oxide and other unidentified organic compounds may be formed upon combustion.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity

Dermal LD50 >2 g/kg(Rabbit) OSHA: Non-Toxic Based on similar material(s)
Eye Irritation Moderate to Severe Irritation [Human] OSHA: Irritating
Based on similar material(s)
Oral LD50 >5 g/kg(Rat) OSHA: Non-Toxic Based on similar material(s)
Skin Irritation Draize 0.98 [Rabbit, 24 HOUR(S)] OSHA: Irritating Based
on similar material(s)

Carcinogenicity:

Gasoline has been tested by API in a long-term inhalation test in mice and rats. There was an increased incidence of liver cancer in female mice. Male rats had a dose related increase in kidney tumors. This effect was due to formation of alpha-2u-globulin in the rats. This material is not formed in humans and is therefore not considered relevant.

Carcinogenicity Classification

Gasoline (Conventional, CARB and RFG)

IARC: Possible Carcinogen (2B) ACGIH: A3 OSHA: Yes

Benzene

NTP: Yes IARC: Carcinogen (1) ACGIH: A1 OSHA: Yes

Ethyl Benzene

IARC: Possible Carcinogen (2B)

Methyl Tert-Butyl Ether (MTBE)

ACGIH: A3

Naphthalene

ACGIH: A4

Styrene

IARC: Possible Carcinogen (2B) ACGIH: A4

Toluene

IARC: Not Classifiable (3) ACGIH: A4

Toxic Effects - Equiva Gasoline MSDS

Carcinogenicity

Chronic inhalation of wholly vaporized gasoline produced kidney tumors in male rats and liver tumors in female mice. The kidney tumors have been shown to develop through a unique mechanism involving Alpha-2u globulin. This protein is not present in humans making the kidney tumors irrelevant to potential human health risks. Origin of the female mouse liver tumors is less understood, leaving their significance for human risks uncertain. Prolonged and repeated exposure to high concentrations (10s to 100s ppm) of benzene may cause serious injury to blood-forming organs, is associated with anemia (depletion of blood cells) and is linked to the later development of acute myelogenous leukemia (AML) in humans. A recent chronic bioassay of ethylbenzene by the NTP produced clear evidence of carcinogenicity in male rats based on kidney tumor increase. Other animal tumors possibly associated with ethylbenzene include testicular adenomas in male rats, kidney tumors in female rats, lung tumors in male mice and liver tumors in female mice. Toluene is not known to be mutagenic or carcinogenic although available human and experimental animal data are limited and insufficient to assess carcinogenic potential. Chronic inhalation of MTBE produced liver tumors in female mice and kidney tumors in male rats. These tumors are of questionable relevance to humans and further studies are being done to address their significance.

Cardiovascular System

While there is no evidence that workplace exposure to acceptable levels of toluene vapors (e.g., the TLV) have produced cardiac effects in humans, high concentrations may cause cardiac sensitization and sudden lethality has been reported from habitual sniffing of solvents or glue. Animal studies have confirmed the sensitizing effects. Sensitization may lead to fatal changes in

heart rhythms. Hypoxia or injection of adrenalin-like agents may enhance this effect. Thickening of heart blood vessels has been reported in animals exposed to xylene.

Developmental Toxicity

Daily exposure of pregnant rats to unleaded gasoline vapor at concentrations up to 9000 ppm resulted in no detectable maternal or developmental toxicity. Numerous studies of benzene in experimental animals have failed to detect teratogenic effects (birth defects) even at doses of benzene toxic to the mothers. There is some evidence of fetal toxicity, but not malformations, in mice and rabbits exposed to 500 ppm and higher concentrations of benzene vapor during gestation. Ethylbenzene caused birth defects in rats but not rabbits at doses that produced toxic effects in the mothers. n-Hexane produced fetal toxicity, reduced fetal weight, in mice at maternally toxic doses. Developmental toxicity studies of xylenes showed embryo-lethal/toxic and teratogenic effects with maternal toxicity. Many case studies involving abuse during pregnancy implicate toluene as a developmental toxicant. Studies in laboratory animals have shown developmental effects comparable to those reported in humans, but the effects were generally associated with maternal toxicity. Exposing pregnant mice to maternally toxic MTBE levels greater than 1000 ppm produced adverse gestational and developmental effects including malformations. No developmental toxicity was seen in rabbits exposed to MTBE concentrations up to 8000 ppm. Birth defects in mice and fetotoxicity in both rats and mice were observed following maternally toxic TAME exposures. Exposure of pregnant rats to high concentrations of DIPE (3095 and 6745 ppm) by inhalation during pregnancy increased the frequency of rudimentary 14th ribs in the offspring. The effect was not seen following exposure to 430 ppm DIPE. The significance of this finding is not known.

Genotoxicity

Unleaded gasoline was tested for genetic activity in tests using microbial cells, cultured mammalian cells and rats (bone marrow) and was judged to be negative in every case. Benzene has been shown to be non-mutagenic or weakly mutagenic in a variety of in vitro (test tube) systems. It has, however, been found to cause other types of chromosome damage (micronuclei, chromosome breakage, non-dysjunctional events) in both laboratory animals and workers exposed to high doses of benzene. These effects appear to be related to one or more metabolites of benzene, possibly acting in combination. Benzene metabolites can also bind to proteins forming detectable complexes (adducts). There is limited evidence of binding to the genetic material (DNA) itself. The relationship of these effects to the causation of leukemia or tumors in experimental animals is unknown. Changes in chromosomes of lymphocytes have been identified in some studies of humans exposed to styrene. The significance of these changes is not known, and other such studies have produced negative results. Chromosomal breaks have been reported in the bone marrow cells of rats exposed to styrene by inhalation along with increased frequency of sister chromatid exchanges in alveolar macrophages, bone marrow cells and regenerating liver cells. Ethylbenzene was not mutagenic in a number of in vitro procedures. Naphthalene was negative in Ames mutagenicity and rat cell transformation assays. Cyclohexane and pseudocumene were also negative in Ames testing. Toluene was negative in the Ames assay and negative for chromosomal aberrations and sister-chromatid exchanges in human lymphocytes and in an in

vitro test using hamster cells. Mouse lymphoma test results for toluene were inconclusive. MTBE was negative in several mutagenicity tests, but was positive in a mouse lymphoma test.

Blood/Blood Forming Organs

Prolonged and repeated exposure to high concentrations (10s to 100s ppm) of benzene may cause serious injury to blood-forming organs and is associated with anemia (depletion of blood cells). Repeated exposure of rabbits to high cyclohexane vapor concentrations causes a slight increase in blood clotting time. Blood effects were seen in rats following prolonged and repeated oral exposure to a mixture of xylenes containing ethylbenzene.

Immunotoxicity

Various studies of workers exposed to high levels of benzene have found impairment of both humoral (antibody) and cellular immunity, most notably a decrease in levels of circulating leukocytes. Many of these exposures also involve other solvents and chemicals. Animal studies with high benzene doses have reported similar effects.

Kidney

Long-term inhalation of wholly vaporized gasoline caused increased kidney weight and progressive nephropathy (tissue damage) in male rats. In rats exposed orally to a xylene mixture also containing ethylbenzene, males developed hyaline droplet changes and females showed evidence of early chronic nephropathy. Intentional abuse of toluene vapors by 'glue-sniffers' has been associated with damage to the kidneys. Long term inhalation of up to 8000 ppm MTBE vapor produced a chronic, progressive nephropathy (kidney damage) in male rats. This effect may be related to the accumulation of alpha-2u globulin and therefore specific to the male rat. (See Carcinogenicity) Increased kidney weights without evidence of tissue injury were reported in rats exposed to high, inhaled doses of TAME. Prolonged inhalation of DIPE (90 days or longer) increased kidney weights in both male and female rats. In male rats exposed to the highest concentration (7100 ppm) there was also evidence of microscopic changes (hyaline droplets) in the kidney tubules resembling those produced by exposure to gasoline.

Liver

Inhalation of gasoline vapor increased liver weights, urinary excretion of ascorbic acid, and hepatic enzyme activity in male rats. Liver weight increases were seen in rats dosed orally for 90 days with a xylene mixture also containing ethylbenzene. Reversible liver damage has been reported in persons exposed to toluene by solvent abuse. Liver weight increases without evidence of tissue injury were seen in rats exposed to greater than 500 ppm TAME by inhalation for four weeks. Prolonged inhalation of DIPE (90 days or longer) increased liver weights in both rats and rabbits. In rabbits and in male rats exposed to 7100 ppm there was also evidence of microscopic changes in the liver tissue.

Nervous System

Inhalation of MTBE vapors at high concentrations (above 800 ppm) induced reversible central nervous system depression in rats. Inhalation of TAME at concentrations greater than 250 ppm produced reversible sedation in rats and

mice.

Neurotoxicity

Inhalation exposure to high n-hexane concentrations has resulted in peripheral neuropathy in rodents and also in human workers. Rats receiving prolonged and repeated exposure to high doses of xylene have shown hearing loss. Prolonged and repeated exposures to high toluene concentrations (mixed solvent) have resulted in hearing loss in laboratory animals. There have also been reports of hearing damage in humans overexposed to toluene and other solvents, however, these effects and their possible relationship to noise exposure remain uncertain. Intentional inhalation ('glue-sniffing') and resulting overexposure to toluene vapors has been linked to brain injury. Rats exposed repeatedly to high concentrations of styrene vapor also developed hearing deficits.

Reproductive Toxicity

Inhalation of high n-hexane concentrations resulted in testicular and epididymal lesions in laboratory animals. Animal studies on benzene have shown testicular effects and alteration in reproductive cycles.

Sensitization

Gasoline and component petroleum streams blended to produce it were tested in animal studies and found not to cause skin sensitization.

Systemic Toxicity

Studies on n-hexane in laboratory animals have shown mild, transitory effects on the spleen and blood (white blood cells) and evidence of nasal tract and lung damage. Chronic exposure to vapors of a mixture containing 50% pseudocumene (and possibly contaminated with benzene) caused decreased weight gain and blood changes (lymphopenia and neutrophilia), liver, lung, spleen, kidney, and bone marrow effects in rats. Microscopic changes in the lung, including congestion, hemorrhage, edema, exudation, and leukocyte infiltration were observed in rats and guinea pigs following acute inhalation of styrene. In fatally exposed animals, pulmonary congestion, edema, and necrosis of the kidney and liver were reported. Repeated exposure to high vapor concentrations of cyclohexane caused minor microscopic liver and kidney changes in rabbits. Laboratory animals exposed to prolonged and repeated doses of xylenes by various routes have shown effects in liver, kidneys, lungs, spleen, heart, blood and adrenals.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Impact Summary:

There is no ecological data available for this product.

SECTION 13 DISPOSAL CONSIDERATIONS

RCRA Information:

If this material, as it is originally purchased, were subsequently DISCARDED as a waste, the waste would be a RCRA hazardous waste.

D001 (Ignitable Hazardous Waste) D018 (Toxicity, Benzene > 0.5 mg/l)

Under RCRA, it is the responsibility of the user of the material to determine, at the time of the disposal, whether the material meets RCRA criteria for hazardous waste. This is because material uses, transformations, mixtures, processes, etc. may affect the classification. Refer to the latest EPA, state and local regulations regarding proper disposal.

SECTION 14 TRANSPORT INFORMATION

US Department of Transportation Classification

Proper Shipping Name: Gasoline
Identification Number: UN1203
Hazard Class/Division: 3 (Flammable Liquid)
Packing Group: II
Marine Pollutant % of Total: 100 %weight
Marine Pollutant: Marine Pollutant based on the presence of >10% hydrocarbons listed in 49 CFR 172.101, appendix B; main constituents Trimethylbenzene and Naphthalene.
Oil: Per 49 CFR 130.5, containers of 3500 gallon capacity or greater transported by road or rail are excepted from 49 CFR 172.303(L)(2) if shipping papers contain the word 'OIL'; exceptions are not applicable to shipments by water.
Emergency Response Guide # 128

SECTION 15 REGULATORY INFORMATION

FEDERAL REGULATORY STATUS

OSHA Classification:
Product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 19.10.1200.

Ozone Depleting Substances (40 CFR 82 Clean Air Act):
This material does not contain nor was it directly manufactured with any Class I or Class II ozone depleting substances.

Superfund Amendment & Reauthorization Act (SARA) Title III:

There are no components in this product on the SARA 302 list.

SARA Hazard Categories (311/312):

Immediate Health: YES Delayed Health: YES Fire: YES Pressure: NO
Reactivity: NO

SARA Toxic Release Inventory (TRI) (313):

Xylene (mixed isomers), Styrene, 1,2,4-Trimethylbenzene, Toluene, Naphthalene, Methyl Tert-Butyl Ether, N-Hexane, Ethylbenzene, Cyclohexane, Benzene

Toxic Substances Control Act (TSCA) Status:

All component(s) of this material is(are) listed on the EPA/TSCA Inventory of Chemical Substances.

Other Chemical Inventories:

Australian AICS, Chinese Inventory, European EINECS, Japan ENCS, Korean Inventory, Philippines PICCS

State Regulation

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

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

The chemical identified with this code, Reproductive Toxin is known to the state of California to cause birth defects or other reproductive harm. The chemical identified with this code, Carcinogen & Reproduction Toxin, is known to the state of California to cause both cancer and birth defects or other reproductive harm.

Benzene (71-43-2)	0 - 4	%volume	CA_65 C/R
Toluene (108-88-3)	0 - 25	%volume	CA_65 R

New Jersey Right-To-Know Chemical List:

Benzene (71-43-2)	0 - 3.99	%volume	Carcinogen
Benzene (71-43-2)	0 - 3.99	%volume	Mutagen
Benzene, Methyl- (108-88-3)	0 - 24.99	%volume	
Cyclohexane (110-82-7)	0 - 0.99	%volume	
Ethylbenzene (0851)	0 - 2.99	%volume	
Methyl Tert-Butyl Ether (1634-04-4)	0 - 14.99	%volume	
Naphthalene (1322)	0 - 0.99	%volume	
Propane, 2,2'-oxybis- (108-20-3)	0 - 1.99	%volume	
Styrene (100-42-5)	0 - 3.99	%volume	Mutagen
Xylenes (1330-20-7)	0 - 24.99	%volume	

Pennsylvania Right-To-Know Chemical List:

Benzene (71-43-2)	0 - 3.99	%volume	Spec Haz Sub/Env
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Hazardous

Benzene, dimethyl- (1330-20-7)	0 - 24.99	%volume	Environmental Hazard
Benzene, ethenyl (100-42-5)	0 - 3.99	%volume	Environmental Hazard
Benzene, Ethyl- (100-41-4)	0 - 2.99	%volume	Environmental Hazard
Benzene, Methyl- (108-88-3)	0 - 24.99	%volume	Environmental Hazard
Cyclohexane (110-82-7)	0 - 0.99	%volume	Environmental Hazard
Methyl Tert-Butyl Ether (1634-04-4)	0 - 14.99	%volume	Environmental Hazard
Naphthalene (91-20-3)	0 - 0.99	%volume	Environmental Hazard
Propane, 2,2'-oxybis- (108-20-3)	0 - 1.99	%volume	

SECTION 16 OTHER INFORMATION

Revision#: 21

Revision Date: 10/13/2000

Revisions since last change (discussion): This Material Safety Data Sheet has been changed to include new information on the potential carcinogenicity of component Ethylbenzene and to add Diisopropyl Ether (DIPE) as a component. We encourage you to take the opportunity to reread the sheet and review the information contained. Changes have occurred in the following Sections: 2, 11, 15.

SECTION 17 LABEL INFORMATION

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

PRODUCT CODES: 00315, 00330, 00337, 00351, 00371, 00478, 00781, 00782, 00783, 01002, 01004, 01136, 01141, 01145, 01149, 01182, 01418, 01449, 01453, 02570, 02574, 02583, 02595, 02610, 02616, 02632, 02635, 02738, 02751, 02752, 02754, 04976, 04977, 07437, 07438, 07644, 07671, 07672, 07687, 08601, 08602, 08603, 08604, 26603, 26609, 26614, 26615, 26616, 26619, 26620, 26671, 26770, 26777, 26808, 26814, 26844, 26846, 26847, 26848, 34212, 34215

Regular Unleaded Gasoline (Conventional, CARB and RFG)

DANGER!

EXTREMELY FLAMMABLE. VAPORS MAY EXPLODE. OVEREXPOSURE TO VAPORS CAN CAUSE CNS DEPRESSION. MAY CAUSE SKIN AND EYE IRRITATION. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. CONTAINS BENZENE WHICH IS A CANCER HAZARD - LINKED TO DEVELOPMENT OF ACUTE MYELOGENOUS LEUKEMIA.

LONG-TERM EXPOSURE TO GASOLINE VAPORS HAS CAUSED CANCER IN LABORATORY ANIMALS.
PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE OIL ACNE OR DERMATITIS.

MAY CAUSE DAMAGE TO: Cardiovascular System, Blood/Blood Forming Organs,
Kidney, Liver, Nervous System

This material and/or components may cause the following effects:
Developmental Toxicity, Genotoxicity, Immunotoxicity, Reproductive Toxicity

Precautionary Measures:

Avoid heat, sparks, open flames and other ignition sources. Do not take internally. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Keep container closed when not in use. Wash thoroughly after handling.

FIRST AID

Inhalation: Move victim to fresh air and provide oxygen if breathing is difficult. Get medical attention. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

Skin Contact: Remove contaminated clothing. Flush with large amounts of water for at least 15 minutes and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

Eye Contact: Flush eyes with large amounts of water for at least 15 minutes. If redness, burning, blurred vision or swelling persist, transport to nearest medical facility for additional treatment.

Ingestion: DO NOT take internally. DO NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Get medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Have victim rinse mouth out with water, then drink sips of water to remove taste from mouth. In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

FIRE

In case of fire, Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames. Do not use a direct stream of water. Material will float and can be re-ignited on surface of water.

SPILL OR LEAK

Dike and contain spill.

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

CONTAINS: Miscellaneous Hydrocarbons, Mixture; Xylene, mixed isomers,

1330-20-7; Toluene, 108-88-3; 1,2,4-Trimethyl Benzene (Pseudocumene), 95-63-6; Styrene, 100-42-5; Benzene, 71-43-2; Ethyl Benzene, 100-41-4; Hexane, 110-54-3; Cyclohexane, 110-82-7; Naphthalene, 91-20-3; Methyl Tert-Butyl Ether (MTBE), 1634-04-4; Ethyl Tert-Butyl Ether (ETBE), 637-92-3; Tert-Amyl Methyl Ether (TAME), 994-05-8; Diisopropyl Ether (DIPE), 108-20-3

NFPA Rating (Health, Fire, Reactivity): 1, 3, 0

TRANSPORTATION

US Department of Transportation Classification

Proper Shipping Name: Gasoline
Identification Number: UN1203
Hazard Class/Division: 3 (Flammable Liquid)
Packing Group: II
Marine Pollutant % of Total: 100 %weight
Marine Pollutant: Marine Pollutant based on the presence of >10% hydrocarbons listed in 49 CFR 172.101, appendix B; main constituents Trimethylbenzene and Naphthalene.
Oil: Per 49 CFR 130.5, containers of 3500 gallon capacity or greater transported by road or rail are excepted from 49 CFR 172.303(L)(2) if shipping papers contain the word 'OIL'; exceptions are not applicable to shipments by water.
Emergency Response Guide # 128

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flames or heat. Keep container closed and drum bungs in place.

Name and Address

Equilon Enterprises LLC
P. O. Box 4453
Houston, TX 77210-4453

TRANSPORTATION EMERGENCY CHEMTEL (877) 276-7283

HEALTH EMERGENCY CHEMTEL (877) 276-7283

ADMINISTRATIVE INFORMATION

COMPANY ADDRESS: Equilon Enterprises LLC, P. O. Box 4453, Houston, TX. 77210-4453

Company Product Stewardship & Regulatory Compliance Contact: Ken Darmer
Phone Number: (281) 874-7982

MSDS FAX-BACK Phone Number: (877) 276-7285

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