



MSDS No. TLP-UNL All Grades

MATERIAL SAFETY DATA SHEET

SECTION 1 CHEMICAL PRODUCTS & COMPANY IDENTIFICATION

TEXON L.P.
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Suite 1400
Houston, Texas 77079

Information: (281) 531-8400
CHEMTREC: (800) 424-9300

PRODUCT NAME: Unleaded Gasoline - All Grades

Last Revision: November 3, 2009

Date Prepared: October 5, 1985

SYNONYMS: Conventional Unleaded Gasoline, Unleaded Regular, Unleaded Automotive Gasoline, Unleaded Premium, Petrol, Motor Spirits, UNL87 Oct. Over 7.8 RVP

PRODUCT DESCRIPTION: A volatile blend of paraffinic, olefinic, and aromatic hydrocarbons for automotive fuel.

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Product	CAS No.	Wt%	Occupational Exposure Limits*			Units
			OSHA PEL	ACGIH TLV	Other	
Unleaded Gasoline	8006-61-9 86290-81-5	89-100	300**	300	500 (ACGIH, OSHA)STEL**	ppm
Ethyl Alcohol	64-17-5	0-11	1000	NA	1000 (ACGIH) STEL	ppm
Components						
Benzene	71-43-2	0-5.0	1	0.5	2.5(ACGIH), SKIN STEL 5 (OSHA) STEL	ppm ppm
Toluene	108-88-3	0-25.0	200	20	300 (OSHA) CEILING	ppm
Xylenes (O, M, and P Isomers)	1330-20-7	0-25.0	100	100	150 (ACGIH, OSHA) STEL	ppm
Ethyl benzene	100-41-4	0-5.0	100	100	125 (ACGIH) STEL	ppm
n-Hexane	110-54-3	0-5.0	500	50	SKIN	ppm
Hexane (other isomers)	N/A	< 9.0	500	500	1000 (ACGIH, OSHA) STEL**	ppm
1,2,4-Trimethyl Benzene	95-63-6	0-5.0	25**	25		ppm
Cumene	98-82-8	0-2.0	50	50	SKIN	ppm
Butane	106-97-8	<9.0	800**	1000		ppm
Pentane	109-66-0	<6.5	600	600	750 STEL	ppm
t-Butyl Alcohol	75-65-0	0-10.0	100	100	150 STEL	ppm
Methyl t-butyl Ether (MTBE)	1634-04-4	0-15.0	N/A	50	N/A	ppm
Naphthalene	91-20-3	<1	10**	10	15 (ACGIH) STEL	ppm
Trimethylbenzene (All Isomers)	25551-13-7	1-5	N/A	N/A	N/A	ppm

Key: * = 8-Hr. TWA unless otherwise specified
 N/A = Not Available
 STEL = Short Term Exposure Limit; 15 minutes
 SKIN = May be skin absorbed.
 ** = Vacated 1989 OSHA PEL

SECTION 3 HAZARDS IDENTIFICATION

Note: This product has not been tested by Texon L.P. to determine its specific health hazards. Therefore, the information provided in this section includes health hazard information identified by the Agency for Toxic Substances and Disease Registry and the U.S. Department of Health: Centers for Disease Control – National Institute for Occupational Safety and Health for product components.

Carcinogenicity:	NTP	IARC Monographs	ACGIH	OSHA Regulated
Unleaded Gasoline	No	2B	A3	No
Benzene	Yes	Yes	A1	Yes (29 CFR Part 1910.1028)
Ethyl Benzene	No	2B	A3	No
Methyl t-butane Ether	No	C	A3	No

"2B" = This product mixture and gasoline engine exhaust are classified by IARC as "possibly carcinogenic to humans".

"C" = Not classifiable as to humans.

"A1" = Confirmed Human Carcinogen.

"A3" = Confirmed Animal Carcinogen with Unknown Relevance.

Potential Health Effects From Overexposure

Acute Effects:

EYES: Slight to moderate eye irritation with direct contact. Transient corneal injury, blurred vision.

SKIN: Moderately irritating; causing redness, drying of the skin.

INHALATION: Irritating to mucous membrane and respiratory tract. Can act as a simple asphyxiant. Overexposure to vapors may lead to headache, nausea, drowsiness, fatigue, pneumonitis, pulmonary edema, capillary hemorrhaging of the lung and internal organs, central nervous system depression, coma and respiratory arrest.

INGESTION: May cause stomach irritation, gastritis, severe esophagitis, mucositis (oral cavity), headache, nausea, drowsiness, loss of consciousness, convulsions, cyanosis, pneumonitis and central nervous system depression. Aspiration hazard if vomiting occurs.

Chronic Effects:

Skin and eye irritation including damage to the cornea, retina, and ciliary body. Dermatitis and first/second degree skin burns (redness and blisters). May affect the respiratory and central nervous system including chemical pneumonia, seizures, muscle spasms, hallucinations, and loss of memory. Recent studies indicate kidney damage (such as tubular necrosis and interstitial edema) and kidney cancer in rats, and liver cancer in mice.

Gasoline constituents may cross the placenta resulting in fetotoxic and teratogenic effects.

Additional Medical and Toxicological Information:

Contact with full strength or even dilute formulations of this product or exposure above and/or below the PEL or TLV may aggravate pre-existing dermatitis or respiratory disorders in certain individuals. There is sufficient evidence for the carcinogenicity of benzene in humans. Benzene may cause degeneration in blood forming organs leading to anemia, or acute myelogenous leukemia with large chronic exposures. Butane and isobutane have been shown to be cardiac sensitizers in laboratory animal testing. N-hexane has been shown to cause polyneuropathy in animal toxicological tests.

SECTION 4 FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water for at least 15 minutes, including under eyelids. Remove contacts if possible without additional trauma. Contact a physician immediately, preferably an emergency department. Speed and thoroughness in rinsing eyes are important to avoid permanent injury.

SKIN CONTACT: Remove contaminated clothing and shoes. Wash affected areas with soap and flush with large amounts of water for 15 to 20 minutes. Get immediate medical attention by calling 911.

INHALATION: Remove to fresh air. If breathing has stopped, apply artificial respiration. Seek immediate medical attention by calling 911.

INGESTION: Do not induce vomiting. If spontaneous vomiting occurs hold the victim's head lower than hips to prevent aspiration. Watch for pulmonary aspiration. Seek immediate medical attention by calling 911.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point: -40 to -45°F (TCC)
Flammable Limits in Air, % by Volume:
 Lower: 1.4
 Upper: 7.6
Autoignition Temperature: 482-850°F
Extinguishing Media: Dry chemical, foam, or carbon dioxide.
NFPA Ratings: Health: 1 Flammability: 3 Reactivity: 0
HMIS Ratings: Health: 1* Flammability: 3 Reactivity: 0

(* Chronic)

General Hazard:

Gasoline is a Class 1B Flammable Liquid. Flowing gasoline can be ignited by self-generated static electricity (>3000 volt potential): containers should be grounded and bonded. Runoff to sewer may create fire or explosion hazard well downstream from the source. Vapors are heavier than air which may result in extended migration to a remote ignition source and subsequent flashback fire.

Fire Fighting Instructions:

Use a smothering technique for extinguishing fire. Do not use a forced water stream directly on gasoline fires as this will tend to scatter the fire. Use water spray to cool fire-exposed containers. Firefighters should wear self-contained breathing apparatus and full protective clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Remove sources of heat or ignition including internal combustion engines and power tools. Clean-up spill with compatible absorbents, but do not flush to sewer or surface water. Ventilate area and avoid inhalation of vapors or mists.

SECTION 7 HANDLING AND STORAGE

Store in tightly closed containers in a dry cool place, away from incompatible materials or source of heat and ignition. Ground and bond all transfer and storage equipment to prevent static sparks and equip with self-closing valves, pressure vacuum bungs and flame arrestors. Empty containers may contain residue (liquid and/or vapor) and can 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.

Gasoline is to be used as motor fuel only. Never use as a cleaning solvent or degreaser. Use explosion-proof electrical equipment. Use spark-resistant hand tools.

No smoking should be allowed in area of use.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION: Contact lenses should not be worn with chemical safety glasses or goggles (ANSI Z87.1 approved) where contact with liquid or mist may occur.

SKIN PROTECTION: Wear appropriate gloves (nitrile, neoprene, or equivalent) and other PPE when contact with skin may occur. Launder contaminated clothing prior to reuse. Wash with soap and water before eating, drinking or smoking.

INHALATION: Use NIOSH approved respiratory protection. Respirator selection should be based on individual gasoline constituent exposure levels. Wear self-contained breathing apparatus for cleaning large spills or entry into tanks, vessels or other confined spaces where exposure levels are unknown.

VENTILATION: Provide adequate general and local ventilation: (1) to maintain airborne chemical concentrations below applicable exposure limits, (2) to prevent accumulation of flammable vapors and formation of explosive atmospheres, and (3) to prevent formation of oxygen deficient atmospheres, especially in confined spaces. [Note: this product may release gases or vapors that can displace oxygen in enclosed areas.]

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point @760 mmHg: 68-102°F	Melting Point: Variable
Vapor Pressure mmHg @100°F: 38-300	Vapor Density (Air=1): 3-4
% Solubility in H ₂ O: Negligible	pH: N/A
Specific Gravity 60/60F: 0.72-0.76	Evaporation Rate (Butyl Acetate=1): >10
% Volatile by Volume: 100	Viscosity (method, temp.): 1.4 cST@40°C
Odor: Aromatic odor	Appearance: Bronze fluid
Reid VP: 6.4 - 13.0 psi	
Molecular Weight: 110 (approximate) or 1 ppm = 4.5 mg/m ³ (approximate)	

SECTION 10 STABILITY AND REACTIVITY

Stability: Stable under normal conditions of use.

Hazardous Polymerization: Will not occur.

Conditions to Avoid/Incompatibilities: Strong oxidizing agents, heat, sparks, flame, build-up of static electricity, halogens, strong acids and alkalis.

Hazardous Decomposition Products: Smoke, fumes, Aldehydes, Sulfur Oxides, Carbon Oxides and other products of incomplete combustion.

SECTION 11 TOXICOLOGY INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion/Remarks
Inhalation	
Toxicity (Rat): LC50 >5000 mg/m ³	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs. Based on assessment of the components.
Ingestion	
Toxicity (Rat): LD50 >2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Skin	
Toxicity (Rabbit): LD50 >2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: No end point data.	Moderately irritating to skin with prolonged exposure. Based on test data for structurally similar materials.
Eye	
Irritation: Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

CHRONIC/OTHER EFFECTS

For the product itself:

Laboratory animal studies have shown that prolonged and repeated inhalation exposure to light hydrocarbon vapors in the same boiling range as this product can produce adverse kidney effects in male rats. However, these effects were not observed in similar studies with female rats, male and female mice, or in limited studies with other animal species. Additionally, in a number of human studies, there was no clinical evidence of such effects at normal occupational levels. In 1991, the U.S. EPA determined that the male rat kidney is not useful for assessing human risk.

Vapor concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic and may have other central nervous system effects.

Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

Gasoline unleaded: Caused cancer in animal tests. Chronic inhalation studies resulted in liver tumors in female mice and kidney tumors in male rats. Neither result considered significant for human health risk assessment by the United States EPA and others. Did not cause mutations In Vitro or In Vivo. Negative in inhalation developmental studies and reproductive tox studies. Inhalation of high concentrations in animals resulted in reversible central nervous system depression, but no persistent toxic effect on the nervous system. Non-sensitizing in test animals. Caused nerve damage in humans from abusive use (sniffing).

Contains:

BENZENE: Caused cancer (leukemia), damage to the blood-producing system, and serious blood disorders from prolonged, high exposure based on human epidemiology studies. Caused genetic effects and effects on the immune system in laboratory animal and some human studies. Caused toxicity to the fetus in laboratory animal studies.

ETHANOL: Prolonged or repeated exposure to high concentrations of ethanol vapor or overexposure by ingestion may produce adverse effects to brain, kidney, liver, and reproductive organs, birth defects in offspring, and developmental toxicity in offspring.

NAPHTHALENE: Exposure to high concentrations of naphthalene may cause destruction of red blood cells, anemia, and cataracts. Naphthalene caused cancer in laboratory animal studies, but the relevance of these findings to humans is uncertain.

N-HEXANE: Prolonged and/or repeated exposures to n-Hexane can cause progressive and potentially irreversible damage to the peripheral nervous system (e.g. fingers, feet, arms, legs, etc.). Simultaneous exposure to Methyl Ethyl Ketone (MEK) or Methyl Isobutyl Ketone (MIBK) and n-Hexane can potentiate the risk of adverse effects from n-Hexane on the peripheral

nervous system. n-Hexane has been shown to cause testicular damage at high doses in male rats. The relevance of this effect for humans is unknown.

TOLUENE: Concentrated, prolonged or deliberate inhalation may cause brain and nervous system damage. Prolonged and repeated exposure of pregnant animals (>1500 ppm) have been reported to cause adverse fetal developmental effects.

TRIMETHYLBENZENE: Long-term inhalation exposure of trimethylbenzene caused effects to the blood in laboratory animals.

ETHYLBENZENE: Caused cancer in laboratory animal studies. The relevance of these findings to humans is uncertain.

Additional information is available by request.

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material—Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

More volatile component—Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

Less volatile component—Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Majority of components—Expected to be inherently biodegradable.

Atmospheric Oxidation:

More volatile component—Expected to degrade rapidly in air.

BIOACCUMULATION POTENTIAL

Majority of components—Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

SECTION 13 DISPOSAL INFORMATION

Dispose through a licensed/permitted waste disposal company. Follow applicable federal, state and local waste disposal regulations.

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP). Potential RCRA characteristics: IGNITABILITY.

TCLP (BENZENE)

SECTION 14 TRANSPORTATION INFORMATION

LAND (DOT)

Proper Shipping Name: GASOLINE

Hazard Class & Division: 3

ID Number: 1203

Packing Group: II

ERG Number: 128

Label(s): 3

Transport Document Name: UN1203, GASOLINE, 3, PG II

LAND (TDG)

Proper Shipping Name: GASOLINE

Hazard Class & Division: 3

UN Number: 1203

Packing Group: II

Special Provisions: 17

SEA (IMDG)

Proper Shipping Name: MOTOR SPIRIT or GASOLINE or PETROL

Hazard Class & Division: 3

EMS Number: F-E, S-E

UN Number: 1203

Packing Group: II

Label(s): 3

Transport Document Name: UN1203, MOTOR SPIRIT or GASOLINE or PETROL, 3, PG II (-40°C c.c.)

AIR (IATA)

Proper Shipping Name: GASOLINE
Hazard Class & Division: 3
UN Number: 1203
Packing Group: II
Label(s): 3
Transport Document Name: UN1203, GASOLINE, 3, PG II

SECTION 15 REGULATORY INFORMATION

EPA SARA TITLE III

Section 302 EPCRA Extremely Hazardous Substances (EHS)

Product Component	CAS No.	Wt%	RQ, lb	TPQ, lb
None				

Section 304 CERCLA Hazardous Substances

Product Component	CAS No.	Wt%	RQ, lb
Benzene	71-43-2	0-5.0	10
Toluene	108-88-3	0-25.0	1000
Xylene	1330-20-7	0-25.0	100
Ethyl benzene	100-41-4	0-5.0	1000
n-Hexane	110-54-3	0-5.0	5000
Hexane (other isomers)	N/A	< 9.0	5000
Cumene	98-82-8	0-2.0	5000
Methyl t-butyl Ether	1634-04-4	0-15.0	1000
Naphthalene	91-20-3	<1	100

Section 311/312 Hazard Categorization

Acute:	Chronic:	Fire:	Pressure:	Reactive:
X	X	X		

Section 313 EPCRA Toxic Substances

Product Component	CAS No.	Wt.%
Benzene	71-43-2	0-5.0
Toluene	108-88-3	0-25.0
Xylenes (O, M, and P Isomers)	1330-20-7	0-25.0
Ethyl benzene	100-41-4	0-5.0
Cumene	98-82-8	0-2.0
t-Butyl Alcohol	75-65-0	0-10.0
Methyl t-Butyl Ether	1634-04-4	0-15.0
1,2,4-Trimethylbenzene	95-63-6	0-5.0
Naphthalene	91-20-3	<1
Hexane (Other Isomers)	N/A	<9

Key: RQ = Reportable Quantity
TPQ = Threshold Planning Quantity (EHS)

OSHA: Gasoline is classified as hazardous per 29 CFR Part 1910.1200 when used for its intended purpose. Refer to 29 CFR Part 1910.1000 for material and constituent exposure criteria. Refer to 29 CFR Part 1910.1028 for Benzene specific regulatory requirements.

CALIFORNIA PROPOSITION 65 WARNING

Chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm may be found in crude oil and petroleum products. Although it is possible to sufficiently refine a crude oil or its end products to remove the potential for cancer, we are advising that one or more of the listed chemicals may be present in some detectable quantities. Read and follow directions and use care when handling crude oil and petroleum products.

SECTION 16 OTHER INFORMATION

THIS INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF THIS COMPANY'S KNOWLEDGE AND BELIEVED ACCURATE AND RELIABLE AS OF THE DATE INDICATED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO THE ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY THEMSELVES AS TO THE SUITABILITY AND COMPLETENESS OF SUCH INFORMATION FOR THEIR OWN PARTICULAR USE.

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