devon

Material Safety Data Sheet

Section 1: Identification

Manufacturer:		**Emergency Phone Number:** 1.800.424-9300 CHEMTREC	
Devon Energy 20 North Broadway Oklahoma City, OK 73126		Telephone Number for Information 405.235.3611	
Product Identification: Natural Gasoline	**Trade Name or Synonyms:** Petroleum, Unleaded Gasoline	**Date of Issue:** 9/25/01	**Rev. Date** 7/07/04

Section 2: Hazardous Ingredients

Hazardous Component	**Percent**	**OSHA PEL /ACGIH TLV**	
Gasoline (CAS No. 8006-61-9)	49.00 – 95.00	300 ppm 500 ppm	TWA STEL
Xylenes (CAS No. 1330-20-7)	1.00 – 15.00	100 ppm 150 ppm	TWA STEL
Toluene (CAS No. 108-88-3)	1.00 – 10.00	100 ppm 150 ppm	TWA STEL
Methyl Tert-Butyl Ether (CAS No. 1634-04-4)	0.00 – 11.00	Not established	
Benzene (CAS No. 71-43-2)	1.00 – 5.00	1 ppm 5 ppm	TWA STEL
Ethylbenzene (CAS No. 100-41-4)	1.00 – 5.00	100 ppm 125 ppm	TWA STEL
1,2,4-Trimethylbenzene (CAS No. 95-63-6)	1.00 – 5.00	Not established	

Section 3: Physical Data

Boiling Point (F^{O}) @ 760 mm Hg.	85 – 375 F. 29 – 291 C.		**Specific Gravity (water =1)**	0.75
Vapor Pressure	20 C. / 68 F. and 760 mm Hg / 1 atm		**Melting Point**	Variable
Vapor Density (air=1)	3.0 – 4.0		**Evaporation Rate**	< 1
Solubility in Water	Negligible			
Appearance / Odor	Appearance – Clear liquid Odor – Gasoline			

Section 4: Fire and Explosion Data

Flash Point	-45 F. (TCC) -43 C.		**Flammable Limits**	LEL: 1.4 UEL: 7.6
Extinguishing Media: Dry chemical, carbon dioxide, halon, foam or water spray is recommended. Water may be ineffective.				

Special Fire Fighting Procedures:
Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8). Stop spill/release if it can be done without risk. Water spray may be useful in minimizing or dispersing vapors and cooling equipment exposed to heat and flame. Avoid spreading burning liquid with water used for cooling purposes

Unusual Fire and Explosion Hazards:
This material is extremely flammable and may be ignited by heat, sparks, flame or other sources of ignition (e.g. static electricity, pilot lights, and mechanical/electrical equipment). Vapors may travel considerable distances to a source of ignition where they may ignite, flashback or explode. Vapor/air explosion hazard indoors/outdoors or in sewers. Vapors are heavier than air and may accumulate in low areas. If container is not properly cooled, it may explode in the heat of a fire.

Section 5: Health Hazard Data

Effects of Overexposure:
Headache, nasal and respiratory irritation, nausea, drowsiness, fatigue, eye and skin irritation, pulmonary edema, convulsion and loss of consciousness.

Heath Hazards:
Acute - Inhalation of vapors may cause CNS depression, convulsion, and loss of consciousness. Ingestion has symptoms similar to inhalation and aspiration hazard. Eye/skin contact causes irritation.
Chronic - Dermatitis, nervous system, kidney, liver and blood disorders including anemia and leukemia. Kidney cancer in lab animals.

Carcinogenicity - NTP: Yes
Carcinogenicity - IARC: Yes
Carcinogenicity - OSHA: Yes

Skin Contact	This material may cause severe skin irritation. Prolonged or repeated contact may cause redness and burning, drying and cracking and dermatitis.
Eyes	This material may cause eye irritation. Prolonged or repeated contact may cause burning, tearing and redness.
Inhalation	Exposure to mists or prolonged or repeated exposure to vapors may cause irritation of nose and throat and signs of nervous system depression (e.g., drowsiness, dizziness, loss of coordination, and fatigue.
Ingestion	Ingestion of this material may cause irritation of the digestive tract. This material is an aspiration hazard; can enter lungs during swallowing or vomiting and cause lung inflammation and damage.
Medical Conditions Generally Aggravated by Exposure	Benzene - Individuals with liver, kidney and blood diseases. Hexane - Individuals with neurological diseases. Petroleum Solvent - Those with existing dermatitis

Emergency and First Aid Procedures:
Eye contact: For direct contact, flush the affected eye(s) with clean water. Seek medical attention
Skin contact: Wipe material from skin and remove contaminated clothing. Cleanse affected area(s) thoroughly by washing with mild soap and water and, if necessary, a waterless skin cleanser. If irritation or redness develops and persists, seek medical attention.
Inhalation: If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, artificial respiration should be administered. If breathing difficulties develop, oxygen should be administered by qualified personnel.
Ingestion: Aspiration Hazard – Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Do not leave victim unattended. If vomiting occurs, or if comatose or lethargic, place on the left side with the head down. Seek medical attention. To Physician: Emesis or lavage is not recommended for ingestions of minute quantities or tastes of most hydrocarbons. Medical opinion is divided for larger ingestions. Emesis or lavage has been recommended for those petroleum products, which have a high oral toxicity. Gastric lavage with a cuffed endotracheal tube is recommended by some physicians to prevent aspiration.

Section 6: Reactivity Data

Stability	Stable under normal conditions of storage and handling. Extremely flammable liquid and vapor. Vapor may cause flash fire.
Incompatibility	Contact with strong oxidizing agents such as chlorine, permanganates and dichromates may cause fire or explosion.
Conditions to Avoid	Avoid all possible sources of ignition (see Sections 4 and 7).
Hazardous Decomposition Products	Combustion may yield significant amounts of carbon monoxide and small amounts of oxides of sulfur and nitrogen, benzene and other organic compounds.
Hazardous Polymerization	Will not occur.
Polymerization Conditions to Avoid	None known.

Section 7: Spill or Leak Procedures

Steps to be taken in case material is released or spilled:
Extremely flammable. Keep all sources of ignition and hot metal surfaces away from spill/release. Stay upwind and away from spill/release. Isolate hazard area and limit entry to emergency crew. Stop spill/release if it can be done without risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8). Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems and natural waterways. Dike far ahead of spill for later recovery or disposal. 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. If spill of any amount is made into or upon U.S. navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center (phone number 800-424-8802).

Waste Disposal Method (Insure conformity with local disposal regulation):
Dispose of product in accordance with local, county, state, and federal regulations.

Section 8: Personal Protection Information

Respiratory Protection	Depending on the airborne concentration, use a respirator or gas mask with appropriate cartridges and canisters (NIOSH approved, if available) or supplied air equipment.
Ventilation	If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), additional ventilation or exhaust systems may be required. Where explosive mixtures may be present, systems safe for such locations should be used.
Eye Protection	Approved eye protection to safeguard against potential eye contact, irritation or injury is recommended.
Other Protective Clothing or Equipment	The use of gloves impermeable to the specific material handled is advised to prevent skin contact and possible irritation It is suggested that a source of clean water be available in work area for flushing eyes and skin. Barrier creams that are specific for oil-based materials are recommended when gloves are impractical.
Work/Hygienic Practices	Avoid contact with eyes, skin or clothing. Wash hands after using product. Avoid breathing vapors or mists.

Section 9: Special Precautions

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.” Bond and ground all equipment when transferring from one vessel to another. Store only in approved containers. Keep away from any incompatible materials (see Section 5). Protect container(s) against physical damage. The use of explosion-proof equipment is recommended and may be required (see appropriate fire codes.) Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes. The use of 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. Use good personal hygiene practice

“Empty” containers retain 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. “Empty” drums should be completely drained, properly bunged and promptly shipped to the supplier or a drum reconditioner. All other 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 product, refer to Occupational Safety and Health Administration Regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.