

Material Safety Data Sheet

Unleaded Gasoline

VALERO ENERGY CORPORATION
ONE VALERO PLACE
SAN ANTONIO, TX 78221

Emergency Phone Numbers
24 Hour Emergency: 713-923-6641
Chemtrec Emergency: 800-424-9300

General Assistance
General Assistance: 337-566-0116

Section I. Product Identification and Uses

Common/Trade name **Unleaded Gasoline**

CAS# 86290-81-5

Synonyms Regular/Premium/Midgrade/Unleaded Gasoline, Petrol, Motor Fuel Reformulated Gasoline, RFG Conventional, Oxygenated, Non-Oxygenated, CARB Gasoline

MSDS Number 002

Chemical family

DOT Proper Shipping Name Gasoline

DOT Hazard Class

DOT Identification Number/Packaging Group PG: II

Reportable Quantity The RQ for:
Benzene is 10 lbs. This product may contain up to 4.9% benzene.
Cumene is 5,000 lbs. This product may contain up to 5% cumene.
Cyclohexane is 1,000 lbs. This product may contain up to 3% cyclohexane.
Ethylbenzene is 1,000 lbs. This product may contain up to 5% ethylbenzene.
Hexane is 5000 lbs. This product may contain up to 28% hexanes.
Methyl-tertiary-butyl ether is 1000 lbs. This product may contain up to 16% methyl-tertiary-butyl ether.
Toluene is 1,000 lbs. This product may contain up to 30% toluene.
Xylene is 1,000 lbs. This product may contain up to 25% xylene.

Marine Pollutant Not Applicable.

Section II. Summary of Hazards

Danger! Contains Benzene. Cancer Hazard. Can cause kidney, liver and blood disorders. May cause irritation to eyes, skin and respiratory system. Avoid liquid, mist and vapor contact. Harmful or fatal if swallowed. Aspiration hazard; can enter lungs and cause damage. May cause irritation or be harmful if inhaled or absorbed through the skin. Extremely flammable liquid. Vapors may explode.

Section III. Hazardous Ingredients

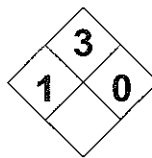
Name	CAS No.	Concentration (%)
1) Toluene	108-88-3	0-30
2) Cumene	98-82-8	0-5
3) Cyclohexane	110-82-7	0-3
4) Ethanol	64-17-5	0-10
5) Ethylbenzene	100-41-4	0-5
6) n-Heptane	142-82-5	1-5
7) Hexane (all Isomers)	mixture	5-25
8) n-Hexane	110-54-3	0-3
9) Pentane	109-66-0	1-5
10) n-Octane	111-65-9	0-18.5
11) Tertiary Amyl Methyl Ether	994-05-8	0-6
12) Trimethyl Benzene (Pseudocumene)	25551-13-7	0-1
13) 1,2,4-Trimethylbenzene	95-63-6	0-6
14) Methyl Tertiary Butyl Ether (MTBE)	1634-04-4	0-16
15) Xylene (o,m,p isomers)	1330-20-7	0-25
16) Benzene	71-43-2	0-4.9

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Section IV. Physical Data

Boiling point	80-440°F	
Melting or Solid point	Not applicable	
Vapor density	3-4 (Air = 1)	
Solubility	Slightly soluble in water	
Physical state and appearance	Liquid.	Odor light straw to red clear liquid, gasoline odor
Odor threshold	Not available.	Color Light straw Red to Clear liquid
Specific gravity	0.66-0.75 @ 60°F	
Vapor pressure	9-15 psi @ 100°F	
Volatility	Essentially 100%	
Evaporation rate	Approximately 10-11 (n-Butyl Acetate=1)	

Section V. Fire and Explosion Data

The product is:	Flammable.	NFPA: 
Flash points	-40°F	
Flammable limits	LOWER: 1.3% UPPER: 7.1%	
Auto-ignition temperature	>500°F	
Basic firefighting procedures:	Flammable Liquid. Use dry chemical, foam or carbon dioxide to extinguish the fire. Consult foam manufacturer for appropriate media, application rates and water/foam ratio. Subsurface application is only recommended where it is known that the fuel contains less than 3% oxygenated blending components. Water can be used to cool fire- exposed containers, structures and to protect personnel. If a leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Use water to flush spills away from sources of ignition. Do not flush down public sewers.	
Fire degradation products	Combustion may produce carbon monoxide, carbon dioxide and reactive hydrocarbons (aldehydes, aromatics, etc.).	
Flammability	Conditions to Avoid: Heat, sparks, open flame, static electricity or any other potential ignition sources should be avoided. Prevent vapor accumulation.	
Unusual fire and explosion hazards:	Dangerous when exposed to heat or flame. Vapors form flammable or explosive mixtures with air at room temperature. Vapor or gas may spread to distant ignition sources (pilot lights, welding equipment, electrical equipment, etc.) and flash back. Vapors may accumulate in low areas. Vapors may concentrate in confined areas. Flowing product can be ignited by self generated static electricity. Use adequate bonding and grounding to prevent static buildup. Runoff to sewer may cause fire or explosion hazard. Containers may explode in heat of fire. Irritating or toxic substances may be emitted upon thermal decomposition. For fires involving this material, do not enter any enclosed or confined space without proper protective equipment, which may include NIOSH approved self-contained breathing apparatus with full face mask. Clothing, rags or similar organic material contaminated with this product and stored in a closed space may undergo spontaneous combustion. Transfer to and from commonly bonded and grounded containers.	

Section VI. Reactivity Information

Stability	The product is stable.
Incompatibility	Avoid strong oxidizing agents (peroxide, dichromate, permanganate, chlorine, etc.), strong acids, caustics and halogens.
Hazardous polymerization	Will not occur.

Section VII. Health Hazard Information & Toxicology of Components

Primary routes of entry Eye or skin contact, Ingestion, Inhalation.
 Target Organs: Respiratory system, skin
 Product Listed as a Carcinogen or Potential Carcinogen by
 NTP - No IARC - No OSHA - No Other - No

TLV	<p>Benzene TWA: 1 (ppm) STEL: 5 (ppm) from OSHA [1999] SKIN TWA: 0.5 (ppm) CEIL: 2.5 (ppm) from ACGIH [1999] SKIN TWA: 0.1 (ppm) ST: 1 (ppm) from NIOSH-REL [1999] SKIN IDLH: 500 (ppm) from NIOSH [1999]</p> <p>Butane TWA: 800 (ppm) from ACGIH [1999] TWA: 800 (ppm) from NIOSH-REL [1999]</p> <p>Cumene TWA: 50 (ppm) from OSHA-PEL [1999] SKIN TWA: 50 (ppm) from ACGIH [1999] TWA: 50 (ppm) from NIOSH-REL [1999] SKIN IDLH: 900 (ppm) [10%LEL] from NIOSH [1999]</p> <p>Cyclohexane TWA: 300 (ppm) from OSHA-PEL [1999] TWA: 300 (ppm) from ACGIH [1999] TWA: 300 (ppm) from NIOSH-REL [1999] IDLH: 1300 (ppm) from NIOSH [1999]</p> <p>Ethylbenzene TWA: 100 (ppm) from OSHA-PEL [1999] TWA: 100 (ppm) STEL: 125 (ppm) from ACGIH [1999] TWA: 100 (ppm) STEL: 125 (ppm) from NIOSH [1999] IDLH: 800 (ppm) [10% LEL] from NIOSH [1999]</p> <p>Gasoline TWA: 300 (ppm) STEL: 500 (ppm) from ACGIH [1999]</p> <p>Heptane TWA: 500 (ppm) from OSHA-PEL [1999] TWA: 400 (ppm) STEL: 500 (ppm) from ACGIH [1999] TWA: 85 (ppm) CEIL: 440 (ppm) from NIOSH-REL [1999] IDLH: 750 (ppm) from NIOSH [1999]</p> <p>n-Hexane TWA: 500 (ppm) from OSHA-PEL [1999] TWA: 50 (ppm) from ACGIH [1999] TWA: 50 (ppm) from NIOSH-REL [1999] IDLH: 1100 (ppm) [10%LEL] from NIOSH [1999]</p> <p>Hexane (all Isomers) TWA: 500 (ppm) STEL: 1000 (ppm) from ACGIH [1999] TWA: 100 (ppm) CEIL: 510 (ppm) from NIOSH-REL [1999]</p> <p>MTBE TWA: 40 (ppm) from ACGIH [1995]</p> <p>Octane TWA: 500 (ppm) from OSHA-PEL [1999] TWA: 300 (ppm) from ACGIH [1999] TWA: 75 (ppm) CEIL: 385 (ppm) from NIOSH-REL [1999] IDLH: 1000 (ppm) [10% LEL] from NIOSH [1999]</p> <p>Pentane TWA: 1000 (ppm) from OSHA-PEL [1999] TWA: 600 (ppm) from ACGIH [1999] TWA: 120 (ppm) CEIL: 610 (ppm) from NIOSH-REL [1999] IDLH: 1500 (ppm) [10% LEL] from NIOSH [1999]</p> <p>Toluene</p>
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TWA: 200 (ppm) CEIL: 300 500 (ppm) from OSHA-PEL [1999]
 TWA: 50 (ppm) from ACGIH [1999]
 TWA: 100 (ppm) STEL: 150 (ppm) from NIOSH-REL [1999]
 IDLH: 500 (ppm) from NIOSH [1999]
Trimethyl Benzene (Pseudocumene)
 TWA: 25 (ppm) from ACGIH [1999]
 TWA: 25 (ppm) from NIOSH-REL [1999]
Xylene (o,m,p isomers)
 TWA: 100 (ppm) from OSHA-PEL [1999]
 TWA: 100 (ppm) STEL: 150 (ppm) from ACGIH [1999]
 TWA: 100 (ppm) STEL: 150 (ppm) from NIOSH-REL [1999]
 IDLH: 900 (ppm) from NIOSH [1999]

Consult local authorities for acceptable exposure limits.

Effects and hazards of eye contact	May cause severe irritation, redness, tearing, blurred vision and conjunctivitis.
Effects and hazards of skin contact	Prolonged or repeated contact may cause moderate irritation, defatting (cracking), redness, itching, inflammation, dermatitis and possible secondary infection. High pressure skin injections are SERIOUS MEDICAL EMERGENCIES . Injury may not appear serious at first. Within a few hours, tissues will become swollen, discolored and extremely painful. See Notes to Physician section.
Effects and hazards of inhalation	Nasal and respiratory tract irritation, central nervous system effects including excitation, euphoria, contracted eye pupils, dizziness, drowsiness, blurred vision, fatigue, nausea, headache, loss of reflexes, tremors, convulsions, seizures, loss of consciousness, coma, respiratory arrest and sudden death could occur as a result of long term and/or high concentration exposure to vapors. May also cause anemia and irregular heart rhythm. Repeated or prolonged exposure may cause behavioral changes.
Effects and hazards of ingestion	This product may be harmful or fatal if swallowed. This product may cause nausea, vomiting, diarrhea and restlessness. DO NOT INDUCE VOMITING . Aspiration into the lungs can cause severe chemical pneumonitis or pulmonary edema/hemorrhage, which can be fatal. May cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting and diarrhea. May cause harmful central nervous system effects, similar to those listed under "inhalation".
Medical conditions aggravated by exposure	Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product. Impaired kidney, liver and blood disorders maybe aggravated by exposure to this product.

Toxicological Information

BENZENE is considered to be a carcinogen to humans, and may cause adverse health effects following exposure via inhalation, ingestion or dermal or eye contact. Acute inhalation of benzene by rats, mice or rabbits caused narcosis, spontaneous heart contractions (ventricular fibrillation) and death due to respiratory paralysis. Subchronic inhalation of benzene by rats produced decreased white blood cell counts, decreased bone marrow cell activity, increased red blood cell activity and cataracts. In rats, chronic inhalation or oral administration of benzene produced cancers of the liver, mouth and Zymbal gland. Acute inhalation exposure of benzene in humans has caused nerve inflammation (polyneuritis), central nervous system depression and cardiac sensitization. Chronic exposure to benzene has produced anorexia and irreversible injury to the blood forming organs. Potential effects include aplastic anemia and leukemia. It has a caused fetal defects in tests on laboratory animals.

CUMENE can affect the body if it is inhaled, swallowed or comes in contact with the eyes or skin. The main toxic effect is irritation of the eyes, skin and upper respiratory tract. Narcosis has been reported to occur in animals on high exposure. There are no reports of systemic effects in man as a result of industrial exposure. Chronic exposure of rats above 500 ppm causes congestion of lungs, liver and kidneys, but no bone marrow changes.

CYCLOHEXANE can affect the body if it is inhaled, swallowed, or comes in contact with the eyes or skin. It is primarily a local irritant and central nervous system depressant. The depressant effect is from exposure to concentrations above 12,000 ppm, while prolonged or repeated exposure to concentrations above 300 ppm produces a mild irritation of the eyes and upper respiratory tract.

ETHANOL is rapidly absorbed through the gastrointestinal tract and normally metabolized and excreted in a relatively few hours. Only in very unusual work situations could the inhalation of ethanol vapors result in symptoms of alcohol intoxication. Can be fatal or cause blindness if swallowed in extreme quantities. Inhalation or ingestion can cause headache, nausea, dizziness or narcosis. Chronic overexposure (inhalation or ingestion) can cause damage to the gastrointestinal tract, liver, kidneys and cardiovascular system. Prolonged contact causes irritation to skin and eyes. Medical conditions aggravated by exposure include kidney, liver, heart and GI conditions. This material is not listed as a cancer causing agent but is suspected of being a promoter.

ETHYLBENZENE can affect the body if it is inhaled, swallowed or comes in contact with the eyes or skin. It is primarily an irritant of skin, and to some degree, of eyes and upper respiratory tract. Systemic absorption causes

depression of the central nervous system with narcosis at very high concentrations. On the eyes and nose, the vapor at 5000 ppm causes intolerable irritation, eye irritation and lacrimation are immediate and severe at 2000 ppm, irritation and tearing occur at 1000 ppm although tolerance develops rapidly, and the vapor is a transient irritant on human eyes at 200 ppm. Aspiration of small amounts causes extensive edema and hemorrhage of lung tissue. A draft report on a study conducted by the National Toxicology program states that lifetime inhalation exposure of rats and mice to concentrations of ethylbenzene (750 ppm) resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations of ethylbenzene (75 ppm or 250 ppm). The draft report does not address the relevance of these results to humans.

GASOLINE contains benzene, as well as n-hexane, other aromatics and certain olefins. Gasoline generally acts as an anesthetic and mucous membrane irritant. Inhalation is the most important route of occupational entry. Eye and throat irritation occur in several hours at exposures of 160 to 270 ppm, eye, nose and throat irritation and dizziness occurs at exposures of 500 to 900 ppm in one hour, mild anesthesia occurs in 30 minutes at exposures of 2000 ppm. The threshold for immediate mild toxic effect is 900 to 1000 ppm. There are reports of toxic neuritis after exposure to gasoline. Repeated exposure of laboratory animals to high concentrations of gasoline vapors has caused kidney damage and cancer in rats and cancer in mice. Gasoline was evaluated for genetic activity in assays using microbial cells, cultured mammalian cells and rat bone marrow cells. The results were all negative so gasoline was considered nonmutagenic under these conditions. Overexposure to this product or its components has been suggested as a cause of liver abnormalities in laboratory animals and humans. Lifetime studies by the American Petroleum Institute have shown that kidney damage and kidney cancer can occur in male rats after prolonged inhalation exposures at elevated concentrations of total gasoline. Kidneys of mice and female rats were unaffected. The U.S. EPA Risk Assessment Forum has concluded that the male rat kidney tumor results are not relevant for humans. Total gasoline exposure also produced liver tumors in female mice only. The implication of these data for humans has not been determined.

HEPTANE can affect the body if it is inhaled, comes in contact with the eyes or skin, or is swallowed. Heptane vapor is a narcotic. Concentrations of 10,000 to 15,000 ppm produced narcosis in mice within 30 to 60 minutes, while 15,000 to 20,000 ppm caused convulsions and death. At 48,000 ppm, respiratory arrest was produced in mice in 3 to 4 minutes from the start of exposure. Human subjects exposed to 1,000 ppm for 6 minutes, or to 2,000 ppm for 4 minutes, reported slight vertigo. At 5,000 ppm for 4 minutes, there was marked vertigo, inability to walk a straight line, hilarity, and incoordination, but no complaints of eye and upper respiratory tract or mucous membrane irritation. A 15-minute exposure at 5,000 ppm produced in some subjects a state of stupor lasting for 30 minutes after exposure. These subjects also reported loss of appetite, slight nausea, and a taste resembling gasoline for several hours after exposure. Although chronic nervous system effects have not been attributed to heptane, polyneuritis has been reported following prolonged exposure to a petroleum fraction with boiling range between 70°C and 100°C, and this fraction would normally contain various isomers of heptane as major ingredients.

n-HEXANE can affect the body if it is inhaled, comes in contact with the eyes or skin, or is swallowed. Hexane vapor is a narcotic and a mild upper respiratory irritant. Polyneuropathy (peripheral nerve damage) has been reported to occur in workers exposed to hexane vapors, characterized by progressive weakness and numbness in the extremities, loss of deep tendon reflexes and reduction of motor nerve conduction velocity. Recovery ranges from no recovery to complete recovery depending upon the duration of exposure and severity of nerve damage. Concentrations of 30,000 ppm produced narcosis in mice within 30 to 60 minutes, convulsions and death occurred at 35,000 to 40,000 ppm, and at 64,000 ppm respiratory arrest was produced in 2.5 to 4.5 minutes from the start of exposure. Concentrations up to 8000 ppm produced no anesthesia. In human subjects, 2000 ppm for 10 minutes produced no effects, but 5000 ppm resulted in dizziness and a sensation of giddiness. Other investigators reported slight nausea, headache and irritation of the eyes and throat at 1400 to 1500 ppm. In industrial practice, mild narcotic symptoms such as dizziness have been observed when concentrations exceeded 1000 ppm, but not below 500 ppm.

MTBE is a mild irritant to the eye. An increase in anesthesia with increasing concentrations was observed during a rat exposure study. Controlled human exposure to MTBE in air under relatively temperate conditions does not cause increased symptoms or measurable responses (irritation, behavioral changes) in healthy adult subjects. Although MTBE and TBA were detectable in the blood of subjects in clinical studies, no increase in symptoms occurred. A tentative review of the carcinogenicity (i.e., a tentative C classification). A sensitivity analysis of cancer risk indices also suggests that, if MTBE is carcinogenic, its potency is not likely to be greater than that already assigned to gasoline itself, which currently has a hazard classification of "probable" human carcinogen.

OCTANE can affect the body if it is inhaled, comes in contact with the skin or eyes or is swallowed. Octane vapor is a mild narcotic and mucous membrane irritant. Concentrations of 6600 to 13,700 ppm produced narcosis in mice in 30 to 90 minutes, the fatal concentration for animals is near 13,500 ppm. No chronic systemic effects have been reported in humans.

PENTANE can affect the body if it is inhaled, comes in contact with the eyes or skin, or is swallowed. The chief effects of inhalation are narcosis and irritation of the respiratory passages. Exposures of 90,000 to 120,000 ppm resulted in narcosis in animals in 5 to 6 minutes, 130,000 ppm was fatal with respiratory arrest occurring within 5 minutes of exposure. Pentane injected subcutaneously in rats produced temporary impairment of liver function and

moderate neutropenia. While other aliphatic hydrocarbons produce drowsiness and mild irritation of the eyes and nose in human subjects, no symptoms resulted from exposure to pentane vapor for 10 minutes at 5000 ppm. Chronic exposure to high concentrations may lead to polyneuropathy (peripheral nerve damage), characterized by progressive weakness and numbness in the extremities, loss of deep tendon reflexes and reduction of motor nerve conduction velocity.

TOLUENE can affect the body if it is inhaled, comes in contact with the eyes or skin or it is swallowed. It may also enter the body through the skin. Toluene vapors cause narcosis. Controlled exposures of human subjects to 200 ppm for 8 hours produced mild fatigue, weakness, confusion, lacrimation and paresthesia. At 600 ppm for 8 hours, there was euphoria, headache, dizziness, dilated pupils and nausea. At 800 ppm for 8 hours, symptoms were more pronounced, and after effects included nervousness, muscular fatigue and insomnia persisting for several days. In workers exposed for many years to concentrations in the range of 80 to 300 ppm, there was no clinical or laboratory evidence of altered liver function. Toluene exposure does not result in the same chronic injury to bone marrow caused by benzene. Liquid splashed in the eyes of workers has caused transient corneal damage and conjunctival irritation, complete recovery occurred within 48 hours. Animal studies have shown that inhalation of high levels of toluene produced cardiac sensitization. Such sensitization may cause fatal changes in heart rhythms. This later effect was shown to be enhanced by hypoxia or the injection of adrenalin-like agents. Workers exposed at less than 200 ppm have complained of headache, lassitude and nausea, but physical findings were essentially negative. At concentrations between 200 and 500 ppm, impairment of coordination, momentary loss of memory and anorexia were present. Between 500 and 1500 ppm, palpitation, extreme weakness, pronounced loss of coordination and impairment of reaction time were noted. The red cell count fell in many instances and there were cases of aplastic anemia in which recovery followed intensive hospital treatment (although some of the effects may have been due to benzene impurity). Toluene has been reported to decrease immunological responses and cause recordable hearing loss in test animals. Damages genetic material in mammalian test systems. May cause adverse reproductive effects based on animal testing.

TRIMETHYL BENZENE (PSEUDOCUMENE) can affect the body if it is inhaled, comes in contact with the eyes or skin or it is swallowed. It may also enter the body through the skin. The liquid is a primary skin irritant, but system intoxication due to absorption through the skin is not probable. High concentrations of vapors (5000 to 9000 ppm) caused central nervous system depression. Pseudocumene may cause nervousness, tension, anxiety, and asthmatic bronchitis. In addition, the peripheral blood showed a tendency to hypochromic anemia and a deviation from the normal in the coagulability of the blood.

XYLENE can affect the body if it is inhaled, comes in contact with the eyes or skin or it is swallowed. It may also enter the body through the skin. Xylene vapor irritates the eyes, mucous membranes and skin. At high concentrations it causes narcosis. In animals, xylene causes blood changes reflecting mild toxicity to the hematopoietic system. Laboratory animals exposed by various routes to high doses of xylene showed evidence of effects in the liver, kidneys, lungs, spleen, heart and adrenals. Rats exposed to xylene vapor during pregnancy showed embryo/fetotoxic effects. Mice exposed orally to doses producing maternal toxicity also showed embryo or fetotoxic effects. Laboratory rats exposed to high concentrations of toluene experienced recordable hearing loss. In humans, exposure to high concentrations can cause dizziness, excitement, drowsiness, incoordination and a staggering gait. Workers exposed to concentrations above 200 ppm complain of anorexia, nausea, vomiting and abdominal pain. Brief exposures of humans to 200 ppm caused irritation of the eyes, nose and throat. There are reports of reversible corneal vacuolation in workers exposed to xylene, or to xylene plus other volatile solvents.

Toxicity to animals LD50: (Oral rat) : > 5 g/kg of bodyweight; LD50 (dermal-rabbit) : > 3.16 g/kg of bodyweight.
LC50: Not available.

Remark

No additional remark.

Section VIII. First Aid

Eye contact	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if pain or redness continues.
Skin contact	Wash exposed area thoroughly with soap and water. Remove contaminated clothing promptly and launder before reuse. Contaminated leather goods should be discarded. If irritation persists or symptoms described in the MSDS develop, seek medical attention. High pressure skin injections are SERIOUS MEDICAL EMERGENCIES. Get immediate medical attention.
Slight inhalation	Remove to fresh air. If breathing is difficult, ensure clear airway and administer oxygen. If not breathing, apply artificial respiration or cardiopulmonary resuscitation. Keep person warm, quiet and get medical attention.
Slight ingestion	Never give anything by mouth to an unconscious person. DO NOT induce vomiting. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal. Give vegetable oil or charcoal slurry to retard absorption. If spontaneous vomiting occurs, keep head below hips to prevent aspiration of liquid into lungs and monitor for breathing difficulty. SEEK IMMEDIATE MEDICAL ATTENTION. Keep person warm and quiet.

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Notes to Physician	In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption. Consideration should be given to the use of an intratracheal tube, to prevent aspiration. Irregular heart beat may occur, use of adrenalin is not advisable. Individuals intoxicated by the product should be hospitalized immediately, with acute and continuing attention to neurological and cardiopulmonary function. Positive pressure ventilation may be necessary. After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary edema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated. In case of skin injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss.
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Section IX. Precautionary Measures

Respiratory protection	If workplace exposure limits for product or components are exceeded, NIOSH equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for nonroutine and emergency use.
Eye protection	Keep away from eyes. Eye contact can be avoided by wearing safety glasses or chemical splash goggles.
Skin protection	Keep away from skin. Skin contact can be minimized by wearing protective gloves such as neoprene, nitrile-butadiene rubber, etc. and, where necessary, impervious clothing and boots. Leather goods contaminated with this product should be discarded. A source of clean water should be available in the work area for flushing eyes and skin.
Ventilation	Avoid breathing mists and vapor. Use in well ventilated area. In confined space, mechanical ventilation may be necessary to reduce vapor concentrations to levels below the allowable exposure limits.
Storage	Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch load" because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices. After handling this product, wash hands before eating, drinking, smoking or using toilet facilities.
Precautions	Tanks, vessels or other confined spaces which have contained product should be freed of vapors before entering. The container should be checked to ensure a safe atmosphere before entry. Empty containers may contain toxic, flammable/combustible or explosive residues or vapors. Do not cut, grind, drill, weld or reuse empty containers that contained this product. Do not transfer this product to another container unless the container receiving the product is labeled with proper DOT shipping name, hazard class and other information that describes the product and its hazards.
Spill and leak procedures	If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Extremely flammable. Review Fire and Explosion Hazard Data before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g., by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment or drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at 800-424- 8802. For highway or railway spills, contact Chemtrec at 800-424-9300.
Waste disposal	Dispose of material in accordance with local, county, state and federal regulations. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility

Section X. Regulatory Information

SARA Title III (302, 304, 311, 312)	XI. SARA TITLE III INFORMATION
	Section 302/304 Extremely Hazardous Substances
	None
	Section 311 Hazard Category
	Acute Chronic Fire Pressure Reactive Not Applicable
	X X X

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SARA Title III (313)	Benzene Cumene Cyclohexane Ethylbenzene Methyl Tertiary Butyl Ether n-Hexane Toluene 1,2,4-Trimethylbenzene Xylene	5% 5% 3% 5% 16% 3% 30% 6% 25%	Maximum Maximum Maximum Maximum Maximum Maximum Maximum Maximum Maximum
TSCA	On the TSCA inventory list.		
Canada DSL	On the DSL list.		
California prop 65	This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Benzene, Toluene.		
State Right-to-know Regulations:	Chemical Name: 1) Toluene 2) Benzene, (1-methylethyl) 3) Benzene (if RFG, 0.99% max.) 4) Gasoline 5) Ethylbenzene 6) n-Hexane 7) Xylenes 8) Methyl Tertiary Butyl Ether (MTBE) 9) Ethyl alcohol 10) 1,2,4-Trimethylbenzene 11) Cumene 12) Cyclohexane	State Right-to-know: CT FL IL MA NJ PA RI MI TN CT FL IL MA NJ PA RI MI TN CT FL IL MA NJ PA RI MI TN CT FL IL LA MA NJ RI TN CT FL IL MA NJ PA RI TN CT FL IL MA NJ PA RI TN CT FL IL MA NJ PA RI MI MA NJ PA CT FL IL MA NJ PA RI MA NJ PA MA NJ PA TN MA NJ TN	
CERCLA/ SUPERFUND	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4.		
OSHA Hazard Determination	This material is hazardous as defined by OSHA's Hazard Communication Standard, 29 CFR 1910.1200.		
Protection of Stratospheric ozone:	(pursuant to section 611 of the Clean Air Act Amendments of 1990); per 40 CFR part 82, this product does not contain nor was it directly manufactured with any class I or II ozone depleting substances.		

Section XI. Labeling Information

Danger! Contains Benzene. Cancer Hazard. Can cause kidney, liver and blood disorders. May cause irritation to eyes, skin and respiratory system. Avoid liquid, mist and vapor contact. Harmful or fatal if swallowed. Aspiration hazard; can enter lungs and cause damage. May cause irritation or be harmful if inhaled or absorbed through the skin. Extremely flammable liquid. Vapors may explode.

If swallowed, do not induce vomiting; aspiration hazard. Call physician immediately. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Wash skin with soap and plenty of water. Product soaked clothing should be removed and laundered before reuse. Read Emergency and First Aid Information section of the MSDS.

Use only in well ventilated locations. Keep away from heat, spark and flames. In case of fire, use water spray, foam, dry chemical or carbon dioxide as described in the Fire and Explosion Hazard Data section of the MSDS. Do not pressurize, cut, weld, braze, solder, drill on or near this container. "Empty" container contains residue (liquid and/or vapor) and may explode in heat of a fire.

Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth. For use as a motor fuel only. Do not use as a cleaning solvent or for other non-motor fuel uses.

DOT