



CITGO Petroleum Corporation
 P.O. Box 3758
 Tulsa, Oklahoma 74102

Material Safety Data Sheet

Trade Name: CITGO Unleaded Gasoline

Commodity Code: 04-001

Synonyms: Motor Gasoline, Petrol, Gas

Date: February 10, 1989

CAS No.: Mixture
 (Refer to Section 1)

Technical Contact: (918) 495-5933
 Medical Emergency: (318) 491-6215
 Chemtrec Emergency: (800) 424-9300

Citgo Index No.: 0083

Material Hazard Evaluation

(Per OSHA Hazard Communication
 Standard [29 CFR Part 1910.1200]) (OHCS)

Health: **DANGER:** Contains *Benzene* - cancer hazard.
 Harmful or fatal if swallowed. Vapors hazardous.

Precautionary Statement: **DANGER:** Extremely flammable liquid. Do not siphon by mouth. If swallowed, do not induce vomiting - call physician immediately.

HMIS Rating¹: Health 1 Flammability 3 Reactivity 0

1.0 Generic Composition / Components

Components	CAS #	%	Hazard Data
Petroleum Distillates	Mixture	85-98	Oral: LDLo(human): 0.5-5.0g/kg
Benzene	71-43-2	< 5	OSHA PEL: TWA 1 ppm Oral: LD50(ms): 4700mg/kg.
Lower Aliphatic Alcohols	Mixture	0-11	Oral: LD50(rat): > 5.0g/kg Dermal LD50(rat): > 5.0g/kg
Lower Aliphatic Ethers	Mixture	0-15	Inhn TClo(Human): ~ 25 ppm Oral LD50(rat): 4 ml/kg Dermal LD50(rbt): > 10 ml/kg Eyes: Mild irritant

Alcohols, alkylethers and similar additives, do not significantly alter the toxicity of Unleaded Gasoline.

¹ Hazard Rating: least-0; slight-1; moderate-2; high-3; extreme-4
 Citgo assignment based on our evaluation per NFPA and NPCA guidelines.

2.0 Physical Data

Physical Hazard Classification (Per 29 CFR Part 1910.1200)

No	Combustible	Yes	Flammable	No	Pyrophoric
No	Compressed Gas	No	Organic Peroxide	No	Reactivity
No	Explosive	No	Oxidizer	Yes	Stable

Boiling Point, 760 mmHg, °C(°F): 35(95)
 Specific Gravity (60/60°F) (H₂O = 1): 0.75
 Vapor Density (Air = 1): 3-4
 % Volatiles by Volume: High
 Melting Point, °C(°F): NA
 Vapor Pressure, mmHg (25°C): 510-760
 Solubility in H₂O, % by Weight: Negligible
 Evaporation Rate (Butyl Acetate = 1): < 1
 pH of Undiluted Product: ND
 Appearance and Odor: Light yellow or clear liquid - gasoline odor

3.0 Fire and Explosion Data

Flash Point, COC, °C(°F)	-43(-45)
Flash Point, PMC, °C(°F)	ND
Fire Point, COC, °C(°F)	ND
NFPA Rating ²	Health: 1 Flammability: 3 Reactivity: 0
Flammable Limits (% by volume in air)	Lower: 1.4 Upper: 7.6
Extinguishing Media	CO ₂ , dry chemical, foam, water fog
Special Fire Fighting Procedure	Wear self-contained breathing apparatus when in a confined area.
Unusual Fire or Explosion Hazard	Material is highly volatile and emits vapors which may be ignited by other ignition sources.

4.0 Reactivity Data

Stability: Stable
Conditions Contributing to Instability: High Temperature, flame.
Incompatibility: Strong oxidants, strong acids, caustics.
Hazardous Decomposition Products: CO₂, (CO under incomplete combustion).
(thermal, unless otherwise specified)
Conditions Contributing to Hazardous Polymerization: None.

² Hazard Rating: least-0; slight-1; moderate-2; high-3; extreme-4
 Citgo assignment based on our evaluation per NFPA guidelines.

5.0 Spill or Leak Procedures

Procedures if Material is Spilled:

- Remove sources of ignition, ventilate area.
- *Small spills:* Take up with non-combustible absorbant such as fullers earth or sand. Place into containers for later disposal.
- *Large spills:* Contain spill in earthen dikes for later recovery. Control ignition sources around spill area. A fire-fighting foam blanket on top of spill will reduce vapor release and the danger of fire.
- Report spills as required to appropriate authorities.

Waste Disposal:

- It is the responsibility of the user to determine if the material is a hazardous waste at the time of disposal.
- Check before disposing to be sure you are in compliance with all applicable laws and regulations.
- Chemtrec/RCRA Emergency Hotline Number: 800-424-9346.

Protective Measures During Repair and Maintenance of Contaminated Equipment:

- Refer to Section VII - Special Protection Information.
- Provide sufficient ventilation, eliminate all ignition sources.
- Wash exposed skin thoroughly with soap and water.
- Remove soiled clothing.
- Use impervious gloves if extended, direct contact is expected.

6.0 Health Hazard Data

Health Hazard Classification

(Per 29 CFR Part 1910.1200)

No	Carcinogen	No	Corrosive
Yes	Animal Carcinogen	Yes	Irritant
No	Suspect Carcinogen	No	Sensitizer
No	Mutagen	No	Teratogen
No	Highly Toxic	Yes	Target Organ: Hematopoietic, respiratory system, skin
No	Toxic		

Product listed as Carcinogen or Potential Carcinogen by:

NTP No IARC No OSHA No Other Yes (API studies)

Toxicity summary:

Moderately toxic: 0.3 to 8 oz. may be a lethal oral dose for 150 lb. human.

Major Route(s) of Entry:

Vapors, inhalation, and skin contact.

Acute Exposure Symptoms

Inhalation:	Moderate risk of vapor intoxication. Major risk in enclosed spaces with poor ventilation. Euphoria, lung irritation and edema, headache, dizziness, drowsiness, convulsions, coma, cyanosis, generalized depression.
Dermal Contact:	Defatting with drying of skin.
Eye Contact:	Irritant.
Ingestion:	Burning of mouth and upper GI tract, vomiting and diarrhea. Above 1 oz. or less than 1 oz. with retention: general depression, sedation, respiratory depression, coma.

Chronic Exposure

Skin:	Drying of skin (dermatitis)
Inhalation:	Benzene has been classified as a leukemogen, and may produce anemia, leukemia from repeated or prolonged exposure to high concentrations. The American Petroleum Institute sponsored chronic inhalation studies of unleaded gasoline vapors indicating unleaded gasoline is carcinogenic to laboratory animals.

Other Special Effects

None

Medical Conditions Aggravated by Exposure

Pre-existing dermatoses.

First Aid and Emergency Procedures for Acute Effect

Inhalation:	Remove to fresh air. Respiratory support, if necessary. Seek medical aid.
Dermal:	Wash with soap and water. Do not wear heavily contaminated clothing before cleaning.
Eyes:	Flush with large volumes of water. Seek medical aid.
Ingestion:	Do not induce vomiting. Seek medical aid.

Notes to Physician: This is a low viscosity material with a Saybolt viscosity at 100°F of less than 40 SUS. Pulmonary high aspiration hazard, possibly producing lipoid pneumonia if swallowed and vomiting occurs. Use careful gastric lavage with tight fitting, cuffed endotracheal tube.

7.0 Special Protection Information

- Ventilation Requirements:** Use in well ventilated area. In confined space, mechanical ventilation may be required to keep levels of certain components below mandated standards. Responsible individuals should evaluate air concentrations of specific regulated chemicals.
- TLV:** TWA (Time Weighted Average): 300 ppm (900 mg/m³)
STEL (Short Term Exposure): 500 ppm (1500 mg/m³)
ACGIH-1987-88.
- Specific Personal Protective Equipment:** If high vapor concentration is expected, use approved organic respirator.
- Eyes:** Safety glasses, or chemical goggles, with side shields, if splashing is anticipated.
- Dermal:** Oil impervious gloves, such as Nitrile-Butadiene rubber gloves, if frequent or prolonged contact is expected.
- Other Clothing or Equipment:** Wear body-covering garments to prevent prolonged or repeated direct dermal exposure. Remove gasoline soaked clothing since it presents a fire hazard. Launder before reuse. Treat gasoline generally as leukemogenic and potentially carcinogenic material.

8.0 Transportation and Special Precautions

- Storage:** Keep container tightly closed and away from heat and flame and strong oxidizers (NFPA Class IA Flammable). Do not store with strong oxidizers.
- Caution:** Empty containers may contain product residue which could produce flammable and explosive vapors.

Consult appropriate Federal, State and Local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.

DOT Information

Proper Shipping Name:	Gasoline.
Hazard Class:	Flammable Liquid.
Hazard Identification Number:	UN 1203.
Placard:	Flammable Liquid.
Packaging Exceptions/Restrictions:	Refer to: 49CFR173.118 49CFR173.119
Compatibility Category:	Group 33

9.0 Environmental Data

Product Name: CFTGO Unleaded Gasoline
 Commodity Code: 04-001

SARA TITLE III

Section 313 - Toxic Chemicals

This product contains toxic chemicals of Section 313 of Title III of Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

<u>Components</u>	<u>CAS#</u>	<u>%</u>
Benzene	71-43-2	0-5
Tertiary Butyl Alcohol	75-65-0	0-10
Ethyl Benzene	100-41-4	0-5
Methyl-t-butyl ether	1634-04-4	0-15
Toluene	108-88-3	0-25
1,2,4 Trimethyl Benzene	95-63-6	0-5
Xylene (mixed isomers)	1330-20-7	0-25

Section 311 - Hazard Categories

<u>No</u> Not Applicable	<u>Yes</u> Fire Hazard
<u>Yes</u> Acute (Immediate Health Hazard)	<u>No</u> Sudden Pressure Release
<u>Yes</u> Chronic (Delayed Health Hazard)	<u>No</u> Reactivity Hazard

Section 302(A) - Extremely Hazardous Substances

(RQ = Reportable Quantity)
 (TPQ = Threshold Planning Quantity)

This product does not contain Extremely Hazardous Substances of Section 302(A).

<u>Component</u>	<u>CAS#</u>	<u>%</u>	<u>RQ lbs.</u>	<u>TPQ lbs.</u>
None	-	-	-	-

Clean Water Act

Under Section 311 (b) (4) of the Clean Water Act, discharges of crude oil and petroleum products in any kind or form to surface waters must be immediately reported to the National Response Center: 800-424-8802.

Comprehensive Environmental, Response, Compensation & Liability Act (CERCLA) - Section 102 Hazardous Substances

<u>Component</u>	<u>CAS#</u>	<u>%</u>	<u>RQ lbs.</u>
None	-	-	-

Petroleum and petroleum fractions are excluded from the list of CERCLA hazardous substances by Section 101(14) of CERCLA.

10.0 Labeling

DANGER

*Contains BENZENE - Cancer Hazard
Extremely flammable
Harmful or fatal if swallowed*

Handling

*Keep away from heat, sparks, and flames.
Keep container closed.
Do not breathe vapors.
Use only with adequate ventilation.
Do not siphon by mouth.*

This product contains benzene and certain other hydrocarbons which are potentially toxic and carcinogenic. Avoid repeated or prolonged contact with skin.

First Aid

*If swallowed, do not induce vomiting.
Call a physician immediately.
In case of contact, remove contaminated clothing immediately, and wash thoroughly with soap and water.*

ALL STATEMENTS, INFORMATION, AND DATA PROVIDED IN THIS MATERIAL SAFETY DATA SHEET ARE BELIEVED TO BE ACCURATE AND RELIABLE, BUT ARE PRESENTED WITHOUT GUARANTEE, REPRESENTATION, WARRANTY, OR RESPONSIBILITY OF ANY KIND, EXPRESSED OR IMPLIED. ANY AND ALL REPRESENTATIONS AND/OR WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY DISCLAIMED. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION OR PRODUCTS FOR THEIR PARTICULAR PURPOSE. NOTHING CONTAINED HEREIN IS INTENDED AS PERMISSION, INDUCEMENT OR RECOMMENDATION TO VIOLATE ANY LAWS OR TO PRACTICE ANY INVENTION COVERED BY EXISTING PATENTS, COPYRIGHTS OR INVENTIONS.