



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

## Material Safety Data Sheet

Trade Name: CITGO No. 2 Fuel Oil

Commodity Code: 13-001

Synonyms: Fuel Oil

Date: January 25, 1990

CAS No.: Mixture  
(Refer to Section 1)

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

Citgo Index No.: 0091

### Material Hazard Evaluation

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

Health: Low hazard under ambient conditions. Vapors, mists and fumes hazardous.

Precautionary Statement: **CAUTION:** Combustible Liquid. Do not inhale vapors, fumes, or mists. Prevent dermal contact.

HMIS Rating<sup>1</sup>: Health 0 Flammability 2 Reactivity 0

## 1.0 Generic Composition / Components

| <u>Components</u>  | <u>CAS #</u> | <u>%</u> | <u>Hazard Data</u>             |
|--|--------------|----------|--------------------------------|
| Petroleum Distillates<br>(complex mixture of<br>aliphatic and naphthenic<br>hydrocarbons, C <sub>6</sub> and higher) | Mixture      | > 99     | Oral: LDLo(hm): 500-5000 mg/kg |
| Additives (corrosion and<br>sludge inhibitors)   | Mixture      | < 1      | Non-hazardous                  |

<sup>1</sup> 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)

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

Boiling Point, 760 mmHg, °C(°F): ~ 170-338(369-575)  
 Specific Gravity (60/60°F) (H<sub>2</sub>O = 1): 0.87  
 Vapor Density (Air = 1): 3-4  
 % Volatiles by Volume: ND  
 Melting Point, °C(°F): NA  
 Vapor Pressure, mmHg (25°C): ~ 2 mmHg  
 Solubility in H<sub>2</sub>O, % by Weight: Negligible  
 Evaporation Rate (Butyl Acetate = 1): < 1  
 pH of Undiluted Product: ND  
 Appearance and Odor: Water white to lemon

## 3.0 Fire and Explosion Data

|                                       |  |
|---------------------------------------|--|
| Flash Point, COC, °C(°F)              | 52-85(125-185)   |
| Flash Point, PM, °C(°F)               | ND   |
| Fire Point, COC, °C(°F)               | ND   |
| NFPA Rating <sup>2</sup>              | Health: 1 Flammability: 2 Reactivity: 0  |
| Flammable Limits (% by volume in air) | Lower: 0.7 Upper: 5.0  |
| Extinguishing Media                   | CO <sub>2</sub> , 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:* Heat, flame.  
*Incompatibility:* Caustics, oxidizing agents and strong acids.  
*Hazardous Decomposition Products:* CO<sub>2</sub>, (CO under incomplete combustion)  
*(thermal, unless otherwise specified)*  
*Conditions Contributing to Hazardous Polymerization:* None.

<sup>2</sup> 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 noncombustible 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 oil 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                             |
| No | Animal Carcinogen  | Yes | Irritant (Pulmonary)                  |
| No | Suspect Carcinogen | No  | Sensitizer                            |
| No | Mutagen            | No  | Teratogen                             |
| No | Highly Toxic       | Yes | Target Organ: Lungs, CNS (Depressant) |
| No | Toxic              |     |                                       |

Product listed as Carcinogen or Potential Carcinogen by:

NTP No IARC No OSHA No Other No

**Toxicity Summary:** Normally of low toxicity, except on ingestion, if misting occurs or dermal absorption.

**Major Route(s) of Entry:** Inhalation of fumes, mists or vapors. Dermal absorption.

## **Acute Exposure Symptoms**

|                        |  |
|------------------------|--|
| <b>Inhalation:</b>     | Mists or fumes above the TLV may cause transient conjunctivitis, respiratory and GI irritation, headache, dizziness, CNS and generalized depression, coma, particularly in oxygen-deficient atmosphere.  |
| <b>Dermal Contact:</b> | Mild temporary irritation.   |
| <b>Eye Contact:</b>    | Mild to moderate irritation.   |
| <b>Ingestion:</b>      | Toxic dose: 1 oz. to 1 pint for a human adult. Symptoms include burning of mouth and upper GI tract, vomiting and diarrhea. Less than 1 oz. with retention may produce general depression, sedation, respiratory and cardiac insufficiency and coma. |
| <b>Injection:</b>      | Irritation, erythema, edema.   |

## **Chronic Exposure**

Prolonged, repeated dermal contact may cause drying, cracking, dermatoses.

## **Other Special Effects**

None.

## **Medical Conditions Aggravated by Exposure**

Pre-existing dermatosis.

## **First Aid and Emergency Procedures for Acute Effect**

|                    |  |
|--------------------|--|
| <b>Inhalation:</b> | Remove from exposure, seek immediate medical aid.                                    |
| <b>Dermal:</b>     | Wash with soap and water. Do not wear heavily contaminated clothing before clearing. |
| <b>Eyes:</b>       | Flush with large volumes of tepid water.   |
| <b>Ingestion:</b>  | Do not induce vomiting. Seek medical aid.  |
| <b>Injection:</b>  | Seek immediate medical aid.  |

**Notes to Physician:** This is a low viscosity material, with a Saybolt viscosity at 100°F of 32.6-40 SUS. If ingestion and vomiting occurs, there exists a high pulmonary aspiration hazard, possibly inducing lipid pneumonia. For quantities above a few drops, use careful gastric lavage with tight fitting, cuffed endotracheal tube.

## 7.0 Special Protection Information

**Ventilation Requirements:** Use in well ventilated area. In confined spaces, mechanical ventilation may be required to keep levels of certain components below mandated standards. Responsible individuals should evaluate air concentrations of specific regulated chemicals.

**Permitted Threshold:** None assigned.  
**Air Concentrations**

**Specific Personal Protective Equipment:**

**Respiratory:** Approved organic respirator above the TLVs.

**Eyes:** Safety goggles, or chemical splash goggles if splashing is anticipated.

**Dermal:** Oil impervious gloves if frequent or prolonged contact is expected.

**Other Clothing or Equipment:** Wear body-covering work clothes to avoid prolonged or repeated exposure. Remove fuel oil soaked clothing since it presents a fire hazard. Launder soiled work clothes before reuse.

## 8.0 Transportation and Special Precautions

**Storage:** Keep container tightly closed and away from heat and flame. Do not store with strong oxidizers.

**Caution:** Empty containers may contain product residue which could include flammable or 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:  
Hazard Class:  
Hazard Identification Number:  
Placard:  
Compatibility Category\*:  
CHRIS Code:

Fuel Oil  
Combustible liquid  
NA 1993  
Combustible liquid  
Group 33  
ODS

\*DOT - Coast Guard

## 9.0 Environmental Data

Product Name  
Commodity Code:

CITGO No. 2 Fuel Oil  
13-001

### SARA TITLE III

#### Section 313 - Toxic Chemicals

This product does not contain toxic chemicals of Section 313 of Title III of Superfund Amendments and Re-authorization Act of 1986 (SARA) and 40 CFR Part 372.

| <u>Components</u> | <u>CAS#</u> | <u>%</u> |
|-------------------|-------------|----------|
| None              | NA          | NA       |

#### 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 Release of Pressure Hazard |
| <u>Yes</u> Chronic (Delayed Health Hazard) | <u>No</u> Reactive 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> |
|------------------|-------------|----------|----------------|
|------------------|-------------|----------|----------------|

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

## 10.0 Labeling

### **CAUTION:**

**COMBUSTIBLE LIQUID**

**HARMFUL IF SWALLOWED**

### **HANDLING:**

*Keep away from heat, sparks and flames.*

*Keep container closed.*

*Do not breathe vapor.*

*Prevent direct dermal contact.*

### **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.*

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