



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

Material Safety Data Sheet

Trade Name:	CITGO A/W Hydraulic Oil 46	
Commodity Code:	33-420	
Synonyms:	Lubricating Oil	Date: March 15, 1993
CAS No.:	Mixture	Technical Contact: (918) 495-5933
(Refer to Section 1)		Medical Emergency: (918) 495-4700
		Chemtrec Emergency: (800) 424-9300
Citgo Index No.:	0226	

Material Hazard Evaluation

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

Health: Final Product Non-Hazardous.

Precautionary Statement: Do not inhale mists or fumes.

HMIS Rating¹: Health 0 Flammability 1 Reactivity 0

1.0 Generic Composition / Components

<u>Components</u>	<u>CAS #</u>	<u>%</u>	<u>Hazard Data</u>
Refined Petroleum Distillates	64741-88-4 64742-65-0	> 95	Oral LD50(rat): > 5g/kg
Anti-wear rust and oxidation inhibitors (contains Zinc Dialkyldithiophosphate)	Mixture	< 1	Oral LD50(rat): ~ 2g/kg Eye: Irritant Dermal: Irritant
Pour Point Depressant	Mixture	< 1	Oral LD50(rat): 60.3g/kg Dermal, eye and respiratory: Mild irritant
Antifoam	Mixture	< 0.1	Oral LD50(rat): > 50g/kg Dermal LD50(rab): > 5g/kg Eye: Slight irritant

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

NA - Not Applicable

ND - No Data

NE - Not Established

2.0 Physical Data

Physical Hazard Classification (Per 29 CFR Part 1910.1200)

No	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): ~ 420 (~ 780)
Specific Gravity (60/60°F) (H₂O = 1): 0.87
Vapor Density (Air = 1): > 1
% Volatiles by Volume: Negligible
Melting Point, °C(°F): NA
Vapor Pressure, mmHg (25°C): ND
Solubility in H₂O, % by Weight: Negligible
Evaporation Rate (Butyl Acetate = 1): < 1
pH of Undiluted Product: NA
Appearance and Odor: Amber liquid, slight sulfurized odor.

3.0 Fire and Explosion Data

Flash Point, COC, °C(°F)	229(445)
Flash Point, PMC, °C(°F)	213(415)
Fire Point, COC, °C(°F)	254(490)
NFPA Rating ²	Health: 0 Flammability: 1 Reactivity: 0
Flammable Limits (% by volume in air)	Lower: NA Upper: NA
Extinguishing Media	CO ₂ , dry chemical, foam, water fog
Special Fire Fighting Procedure	None.
Unusual Fire or Explosion Hazard	Water may cause frothing.

4.0 Reactivity Data

Stability: Stable
Conditions Contributing to Instability: None.
Incompatibility: Strong oxidants.
Hazardous Decomposition Products: CO₂, (CO under incomplete combustion)
(thermal, unless otherwise specified) Traces of oxides of S, P, Zn, Ca and Mg.
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.

NA - Not Applicable

ND - No Data

NE - Not Established

5.0 Spill or Leak Procedures

Procedures if Material is Spilled:

- Remove sources of heat or ignition, provide adequate ventilation, contain leak.
- *Small Spills:* Absorb with suitable material such as rags, straw or sand. Place into containers for later removal.
- *Large Spills:* Contain spill in earthen dikes for later recovery.
- 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.
- RCRA Emergency Hotline Number: 800-424-9346.

Protective Measures During Repair and Maintenance of Contaminated Equipment:

- Refer to Section 7.0 - Special Protection Information.
- Avoid prolonged contact with used oil.
- Wash exposed skin thoroughly with soap and water.
- Remove soiled clothing.
- Use oil impervious gloves if 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	No	Irritant
No	Suspect Carcinogen	No	Sensitizer
No	Mutagen	No	Teratogen
No	Highly Toxic	No	Target Organ
No	Toxic		

Product listed as Carcinogen or Potential Carcinogen by:

NTP No IARC No OSHA No Other No

Toxicity Summary: General toxicity low.

Major Route(s) of Entry: Inhalation of incidental mists or vapors.

Acute Exposure Symptoms

<i>Inhalation:</i>	Low risk of inhalation at ambient temperatures. Mists or fumes may cause drowsiness, dizziness, headache, nausea, or lung irritation or chemical pneumonitis.
<i>Dermal Contact:</i>	Transient, slight irritant
<i>Eye Contact:</i>	May be mildly irritating.
<i>Ingestion:</i>	Low toxicity. If less than 1 oz. is ingested, material may pass through the system without harm. On ingestion of large quantities, slight GI discomfort, diarrhea, and headache may occur.
<i>Injection:</i>	Subcutaneous or intramuscular injection may cause irritation, erythema, edema.

Chronic Exposure

Prolonged and/or frequent contact may cause drying, cracking (dermatitis) or folliculitis.

Other Special Effects

None expected.

Medical Conditions Aggravated by Exposure

None.

First Aid and Emergency Procedures for Acute Effect

<i>Inhalation:</i>	Remove to fresh air. Respiratory support, if necessary. Seek medical aid.
<i>Dermal:</i>	Wash with soap and water. Do not wear heavily contaminated clothing before laundering.
<i>Eyes:</i>	Flush with large volumes of water. Seek physician if any complications arise.
<i>Ingestion:</i>	Induce vomiting. Seek medical aid.
<i>Injection:</i>	Subcutaneous injection is a medical emergency. Seek medical aid immediately.

Notes to Physician: Following ingestion at a Saybolt viscosity of 250 SUS, (100°F), the risk of aspiration into the lungs is slight. For quantities above a few drops, emesis or lavage may be considered. Subcutaneous or intramuscular injection requires prompt surgical debridement. If not familiar with technique, seek skilled advice.

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 as evaluated by designated personnel.

Permitted Threshold Air Concentrations:

Mineral Oil Mist	TLV-TWA	5 mg/m ³	OSHA-PEL	5 mg/m ³
	TLV-STEL	10 mg/m ³	OSHA-STEL	ND
	TLV-Ceiling	ND	OSHA-Ceiling	ND
			OSHA-Peak	ND

Specific Personal Protective Equipment:

Respiratory: Normally none required. If high vapor or mist concentrations expected, use respirator approved for organic vapors and mists.

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. Launder soiled work clothes before reuse.

8.0 Transportation and Special Precautions

Storage: Store below 150°F. Do not apply high heat or flame to container. Keep separate from strong oxidizing agents.

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:	Petroleum Lubricating Oil.
Hazard Class:	Non-Hazardous.
Hazard Identification Number:	None assigned.
Placard:	None.
Compatibility Category:	Group 33.
CHRIS Code:	OMN

9.0 Environmental Data

Product Name CITGO A/W Hydraulic Oil 46
Commodity Code: 33-420

SARA TITLE III

Section 313 - Toxic Chemicals

This product does contain 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>
-	-	-

Section 311 - Hazard Categories

<u>Yes</u> Not Applicable	<u>No</u> Fire Hazard
<u>No</u> Acute (Immediate Health Hazard)	<u>No</u> Sudden Release of Pressure Hazard
<u>No</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>
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Petroleum and petroleum fractions are excluded from the list of CERCLA hazardous substances by Section 101(14) of CERCLA.

New Jersey Worker and Community Right-to-Know Act

Petroleum Oil

CALIFORNIA Proposition 65

Tradename: CITGO A/W Hydraulic Oil 46

Contains components that occur on lists of:

Carcinogenic Materials	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Teratogenic Materials	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Federal Regulations

Reported in TSCA Inventory:

Product	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA
Components	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA

10.0 Labeling

NOTE

This product has been determined not to be a physical or a health hazard as defined by the OSHA Hazard Communication Standard.

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