SAFETY DATA SHEET

CITGO Pacemaker® 46

Section 1. Identification

GHS product identifier	: CITGO Pacemaker® 46	
Synonyms	: Lubricating oil; Hydraulic Oil	
Code	: 633002001	
MSDS #	: 633002001	
Supplier's details	: CITGO Petroleum Corporation P.O. Box 4689 Houston, TX 77210 sdsvend@citgo.com	
Emergency telephone number (with hours of operation)	: Technical Contact: (800) 248-4684 Medical Emergency: (832) 486-4700 CHEMTREC Emergency: (800) 424-9300 (United States Only)	
Section 2. Hazar	ds identification	
OSHA/HCS status	: While this material is not considered hazardous by the OSHA Hazard Communication	

: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
: Not classified.
: Warning
 Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor.
: Avoid contact with eyes, skin and clothing. Thoroughly wash exposed areas and clothing with soap and water. IF IN EYES: Rinse cautiously with water for several minutes. IF SWALLOWED: Do not induce vomiting. If you feel unwell, seek medical attention and show the label when possible. Keep out of reach of children.
: Not applicable.
: Not applicable.
 Store in a dry place and/or in closed container. Store in accordance with all local, regional, national and international regulations.
: Dispose of contents and container in accordance with all local, regional, national and international regulations.
: Injection of petroleum hydrocarbons requires immediate medical attention.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Lubricating oil; Hydraulic Oil

CAS number/other identifiers	
	

CAS number	: Not applicable.

Date of issue/Date of revision



Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy paraffinic	≥90	64742-54-7

Any concentration shown as a range is to protect confidentiality or is due to process variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necess	ary first aid measures
Eye contact	 Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	 Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effe	ects
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	 Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/sym	<u>ptoms</u>
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.
Indication of immediate me	dical attention and special treatment needed, if necessary
Notes to physician	In the event of injection in underlying tissue, immediate treatment should include extensive incision, debridement and saline irrigation. Inadequate treatment can result in ischemia and gangrene. Early symptoms may be minimal.
Specific treatments	: Treat symptomatically and supportively.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.

Section 5. Fire-fighting measures

Specific hazards arising from the chemical	: In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: No specific data.
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protec	oment and emergency procedures	
For non-emergency personnel	tion shall be taken involving any personal risk o ate surrounding areas. Keep unnecessary and ng. Do not touch or walk through spilled materi tive equipment.	unprotected personnel from
For emergency responders	cialized clothing is required to deal with the spill on 8 on suitable and unsuitable materials. See a gency personnel".	
Environmental precautions	dispersal of spilled material and runoff and con ewers. Inform the relevant authorities if the pro- on (sewers, waterways, soil or air).	
Methods and materials for co	nt and cleaning up	
Small spill	eak if without risk. Move containers from spill a er-soluble. Alternatively, or if water-insoluble, al in an appropriate waste disposal container. Dis sal contractor.	psorb with an inert dry material and
Largo spill	eak if without risk. Move containers from shill a	rea Drevent entry into sewers

Large spill :	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
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Section 7. Handling and storage

Precautions for safe handling **Protective measures** : Put on appropriate personal protective equipment (see Section 8). : Eating, drinking and smoking should be prohibited in areas where this material is **Advice on general** handled, stored and processed. Workers should wash hands and face before eating, occupational hygiene drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Conditions for safe storage, : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials including any (see Section 10) and food and drink. Keep container tightly closed and sealed until incompatibilities ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible

materials before handling or use.

Section 7. Handling and storage

Bulk Storage Conditions: Maintain all storage tanks in accordance with applicable regulations. Use necessary controls to monitor tank inventories. Inspect all storage tanks on a periodic basis. Test tanks and associated piping for tightness. Maintain the automatic leak detection devices to assure proper working condition.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name		Exposure limits		
Distillates (petroleum), hydr	otreated heavy paraffinic	ACGIH TLV (United States, 3/2019). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Mist STEL: 10 mg/m ³ 15 minutes. Form: Mist		
Appropriate engineering controls	: Good general ventilation should contaminants.	be sufficient to control worker exposure to airborne		
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, vapor controls, filters or engineering modifications to the process equipment w be necessary to reduce emissions to acceptable levels.			
ndividual protection measu	<u>ires</u>			
Hygiene measures	eating, smoking and using the la Appropriate techniques should b	thoroughly after handling chemical products, before vatory and at the end of the working period. e used to remove potentially contaminated clothing. ore reusing. Ensure that eyewash stations and safety ation location.		
Eye/face protection	industrial settings. If contact is p the assessment indicates a high Safety eyewear complying with a assessment indicates this is nec	Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unlet the assessment indicates a higher degree of protection: chemical splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If inhalation hazards exist, a full-face respirator may be required instead.		
Skin protection				
Hand protection		lying with an approved standard should be worn at all roducts if a risk assessment indicates this is necessar		
Body protection		Personal protective equipment for the body should be selected based on the task bein performed and the risks involved and should be approved by a specialist before handling this product.		
Other skin protection	measures should be selected ba	Avoid skin contact with liquid. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involv and should be approved by a specialist before handling this product. Leather boots a not protective for liquid contact.		
Respiratory protection	supplied-air respirator complying indicates this is necessary. Res	s, mists or dusts. Use a properly fitted, air-purifying or with an approved standard if a risk assessment pirator selection must be based on known or anticipate he product and the safe working limits of the selected		

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid.
Color	: Light amber
Odor	: Mild petroleum odor
рН	: Not available.
Boiling point	: Not available.
Flash point	 Closed cup: 186°C (366.8°F) [Pensky-Martens [ASTM D-93]] Open cup: 202°C (395.6°F) [Cleveland.]
Evaporation rate	: <1 (n-butyl acetate. = 1)
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: <0.013 kPa (<0.1 mm Hg) [room temperature]
Vapor density	: >1 [Air = 1]
Relative density	: 0.87
Density lbs/gal	: Estimated 7.25 lbs/gal
Density gm/cm ³	: Not available.
Gravity, °API	: Estimated 31 @ 60 F
Solubility	: Insoluble in the following materials: cold water.
Flow time (ISO 2431)	: Not available.
Viscosity	: Kinematic (40°C (104°F)): 0.46 cm ² /s (46 cSt)
Viscosity SUS	: Estimated 213 SUS @104 F

Section 10. Stability and reactivity

Reactivity	: Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition	 Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

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Information on toxicological effects Acute toxicity				
Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy paraffinic	LD50 Dermal	Rat	>5000 mg/kg	-
, , , , , , , , , , , , , , , , , , , ,	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/Summary

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Section 11. Toxicological information

	Distillates (petroleum), hydrotreated heavy paraffinic : Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.
Irritation/Corrosion Not available.	
Skin	: No additional information.
Eyes	: No additional information.
Respiratory	: No additional information.
Sensitization Not available.	
Skin	: No additional information.
Respiratory	: No additional information.
<u>Mutagenicity</u> Not available.	
Conclusion/Summary	: No additional information.
Carcinogenicity Not available.	
Conclusion/Summary	: No additional information.
Reproductive toxicity	
Not available.	
Conclusion/Summary	: No additional information.
Teratogenicity	
Not available.	
Conclusion/Summary	: No additional information.
<u>Specific target organ toxi</u> Not available.	<u>city (single exposure)</u>
Specific target organ toxi Not available.	<u>city (repeated exposure)</u>
Aspiration hazard	
Not available.	
Information on the likely routes of exposure	: Routes of entry anticipated: Dermal.
Potential acute health effect	<u>ets</u>
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	 Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor.
Ingestion	: No known significant effects or critical hazards.
Symptoms related to the p	hysical, chemical and toxicological characteristics
Eye contact	: No specific data.
Inhalation	: No specific data.

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Section 11. Toxicological information

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Skin contact	: No specific data.
Ingestion	: No specific data.
	cts and also chronic effects from short and long term exposure
<u>Short term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health eff	<u>ects</u>
Not available.	
General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity Not available. **Conclusion/Summary** : Not available. Persistence and degradability **Conclusion/Summary** : Not available. **Bioaccumulative potential** Not available. **Mobility in soil** Soil/water partition : Not available. coefficient (Koc) Other adverse effects : No known significant effects or critical hazards. Section 13. Disposal considerations

Disposal methods	: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid

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Section 13. Disposal considerations

dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available. to Annex II of MARPOL and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations	:	United States inventory (TSCA 8b): All components are listed or exempted. Clean Water Act (CWA) 307: naphthalene; phenol Clean Water Act (CWA) 311: naphthalene; propylene oxide; phenol
		This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

SARA 302/304

Composition/information on ingredients

			SARA 302 1	PQ SARA 304		I RQ	
Name	%	EHS	(lbs)	(gallons)	(lbs)	(gallons)	
ethylene oxide propylene oxide Phenol	<0.001 <0.001 <0.001	Yes. Yes. Yes.	1000 10000 500 / 10000	- 1444.3 -	10 100 1000	- 14.4 -	

SARA 304 RQ

: 3174603.2 lbs / 1441269.8 kg [437635.9 gal / 1656632 L]

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

No products were found.

State regulations

Section 15. Regulatory information

Massachusetts	: None of the components are listed.
New York	: None of the components are listed.
New Jersey	: None of the components are listed.
Pennsylvania	: None of the components are listed.

California Prop. 65 Clear and Reasonable Warnings (2018)

▲ WARNING: This product can expose you to Ethylene oxide, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Naphthalene, Propylene oxide, 1,4-Dioxane, Ethyl acrylate, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Ingredient name	%	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
naphthalene	< 0.001	Yes.	No.	Yes.	-
ethylene oxide	<0.001	Yes.	Yes.	Yes.	Yes.
propylene oxide	<0.001	Yes.	No.	-	-
1,4-dioxane	<0.001	Yes.	No.	Yes.	-
ethyl acrylate	<0.001	Yes.	No.	-	-

International regulations

Inventory list		
United States	All components are listed or exempted.	
Australia	All components are listed or exempted.	
Canada	All components are listed or exempted.	
China	All components are listed or exempted.	
Europe	All components are listed or exempted.	
Japan	Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.	
Malaysia	Not determined.	
New Zealand	All components are listed or exempted.	
Philippines	All components are listed or exempted.	
Republic of Korea	All components are listed or exempted.	
Taiwan	Not determined.	
Thailand	Not determined.	
Turkey	Not determined.	
Viet Nam	Not determined.	

Section 16. Other information

National Fire Protection Association (U.S.A.)



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Section 16. Other information

Procedure used to derive the classification						
	Justification					
Not classified.						
History						
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Version	: 7					
Key to abbreviations	 ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = International Air Transport Association IBC = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations 					
References	: Not available.					

Indicates information that has changed from previously issued version.

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