SAFETY DATA SHEET

CITGO Pacemaker® Gas Engine Oil 1615



Section 1. Identification

GHS product identifier	: CITGO Pacemaker® Gas Engine Oil 1615
Synonyms	: Gas engine oil
Code	: 632047001
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. Hazard	s identification
OSHA/HCS status	: 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.
Classification of the substance or mixture	: Not classified.
GHS label elements	
Signal word	: No signal word.
Hazard statements <u>Precautionary statements</u>	: No known significant effects or critical hazards.
General	: 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.
Prevention	: Not applicable.
Response	: Not applicable.
Storage	 Store in a dry place and/or in closed container. Store in accordance with all local, regional, national and international regulations.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Gas engine oil

CAS number/other identifiers

CAS number : Not applicable.		
Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy paraffinic	≥90	64742-54-7

Section 3. Composition/information on ingredients

* = Various ** = Mixture *** = Proprietary

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 necessary 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	<u>cts</u>
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
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	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
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 e	ktinguishing agent suitable	for the surrounding fi	re.	
Unsuitable extinguishing media	: None kno	wn.			
Specific hazards arising from the chemical	: In a fire o	r if heated, a pressure incre	ease will occur and th	e container may burst.	
Hazardous thermal decomposition products	: Decompo carbon di carbon m		e the following materi	als:	
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Section 5. Fire-fighting measures

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, protect	tive equipment and emergency procedures
For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders	: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for co	ntainment and cleaning up
Small spill	: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	:	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, 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, including any incompatibilities	:	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 (see Section 10) and food and drink. Keep container tightly closed and sealed until 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.
		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), hydi	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 sho contaminants.	ould be sufficient to control worker exposure to airborne		
Environmental exposure controls	they comply with the require cases, vapor controls, filters	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 will be necessary to reduce emissions to acceptable levels.		
Individual protection measured	ires			
Hygiene measures	eating, smoking and using t Appropriate techniques sho	face thoroughly after handling chemical products, before he lavatory and at the end of the working period. uld be used to remove potentially contaminated clothing. g before reusing. Ensure that eyewash stations and safety wrkstation location.		
Eye/face protection	industrial settings. If contac the assessment indicates a Safety eyewear complying v assessment indicates this is	th side shields are recommended as minimum protection in to it is possible, the following protection should be worn, unless higher degree of protection: chemical splash goggles. with an approved standard should be used when a risk a necessary to avoid exposure to liquid splashes, mists, a hazards exist, a full-face respirator may be required		
Skin protection				
Hand protection		omplying with an approved standard should be worn at all cal products if a risk assessment indicates this is necessary.		
Body protection		ent for the body should be selected based on the task being olved and should be approved by a specialist before		
Other skin protection	measures should be selected	d. Appropriate footwear and any additional skin protection ed based on the task being performed and the risks involved a specialist before handling this product. Leather boots are act.		
Respiratory protection	supplied-air respirator comp indicates this is necessary.	apors, mists or dusts. Use a properly fitted, air-purifying or olying with an approved standard if a risk assessment Respirator selection must be based on known or anticipated s of the product and the safe working limits of the selected		

Section 9. Physical and chemical properties

<u>Appearance</u>					
Physical state	: Liquid.				
Color	: Dark brow	vn to black			
Odor	: Petroleun	۱.			
рН	: Not availa	able.			
Boiling point	: Not availa	able.			
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Section 9. Physical and chemical properties

Open cup: 230°C (446°F) [Cleveland.]Evaporation rate: <1 (n-butyl acetate. = 1)	Flash point	: Closed cup: 212°C (413.6°F) [Pensky-Martens.]
Lower and upper explosive (flammable) limits: Not available.Vapor pressure: <0.0013 kPa (<0.01 mm Hg) [room temperature]		Open cup: 230°C (446°F) [Cleveland.]
(flammable) limitsVapor pressure: <0.0013 kPa (<0.01 mm Hg) [room temperature]	Evaporation rate	: <1 (n-butyl acetate. = 1)
Vapor density: >1 [Air = 1]Relative density: 0.8731Density lbs/gal: Estimated 7.28 lbs/galDensity gm/cm³: Not available.Gravity, °API: Estimated 31 @ 60 FSolubility: Insoluble in the following materials: cold water.Flow time (ISO 2431): Not available.Viscosity: Kinematic (40°C (104°F)): 0.99 cm²/s (99 cSt)		: Not available.
Relative density: 0.8731Density lbs/gal: Estimated 7.28 lbs/galDensity gm/cm³: Not available.Gravity, °API: Estimated 31 @ 60 FSolubility: Insoluble in the following materials: cold water.Flow time (ISO 2431): Not available.Viscosity: Kinematic (40°C (104°F)): 0.99 cm²/s (99 cSt)	Vapor pressure	: <0.0013 kPa (<0.01 mm Hg) [room temperature]
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Gravity, °API: Estimated 31 @ 60 FSolubility: Insoluble in the following materials: cold water.Flow time (ISO 2431): Not available.Viscosity: Kinematic (40°C (104°F)): 0.99 cm²/s (99 cSt)	Density lbs/gal	: Estimated 7.28 lbs/gal
Solubility: Insoluble in the following materials: cold water.Flow time (ISO 2431): Not available.Viscosity: Kinematic (40°C (104°F)): 0.99 cm²/s (99 cSt)	Density gm/cm ³	: Not available.
Flow time (ISO 2431): Not available.Viscosity: Kinematic (40°C (104°F)): 0.99 cm²/s (99 cSt)	Gravity, °API	: Estimated 31 @ 60 F
Viscosity : Kinematic (40°C (104°F)): 0.99 cm²/s (99 cSt)	Solubility	: Insoluble in the following materials: cold water.
	Flow time (ISO 2431)	: Not available.
Vienneity SUS	Viscosity	: Kinematic (40°C (104°F)): 0.99 cm²/s (99 cSt)
Viscosity 505 : Estimated 459 505 @ 104 F	Viscosity SUS	: Estimated 459 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 products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

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	: Distillates (petroleum), hydro highly refined oils are reported Effects from single and short-te oil mists well above applicable reaction, lipoid granuloma form studies involving exposures to current work place exposure le Phenol, 2,2'-polythiobis[4-C8 subchronic feeding studies with reproduction were observed in calcium salt were present at co No adverse reproductive effect lubrication oils contain 5% and reduced. Also, data from 28 da potential induction of liver effect	to have low acut erm repeated exp workplace expos- lation and lipoid lower concentrativels produced no -30-alkyl derivs a calcium branch experimental an ombined concent s were observed 25 % of this mat ay subchronic stu	e and sub-acute tox posures to high con- sure levels include lu- pneumonia. In acut ions of mineral oil n o significant toxicolo ., calcium salts, ov ed alkyl phenate su imals when residual rations of 1.68% by in a reproduction s erial although male udies of similar cher	cicities in animals. centrations of minerations of minerations of minerating inflammatory e and sub-acute hists at or near gical effects. rerbased : In lfide, effects on alkyl phenol and its weight or greater. tudy of two finished body weight was nicals indicate

Section 11. Toxicological information

doses of 250 mg/kg/day or higher. In a combined four-week repeated dose oral toxicity, neurotoxicity and reproductive toxicity screen study in rats at 50, 300, and 1000 mg/kg/ day, body weight gain was decreased. Also, there were adrenal changes in males at 1000 mg/kg/day and serum cholesterol was decreased in males at 300 mg/kg/day and above.

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.
Mutagenicity	
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.
Specific target organ toxicit	<u>y (single exposure)</u>
Not available.	
Specific target organ toxicit	y (repeated exposure)
Not available.	
Aspiration hazard	
Not available.	
Information on the likely	. Deutee of entry enticipated, Dermal
Information on the likely routes of exposure	: Routes of entry anticipated: Dermal.
Potential acute health effects	
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Symptoms related to the phy	sical, chemical and toxicological characteristics
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.

Section 11. Toxicological information

Ingestion

: No specific data.

Delayed and immediate effect	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	ects
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.

<u>Mobility in soil</u>

Soil/water partition : Not available. coefficient (K_{oc})

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

Section 13. Disposal considerations

sewers.

Section 14. Transport information

	DOT Classification	IMDG	ΙΑΤΑ
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: Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc		
	salts		
	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.		
<u>SARA 302/304</u>			
Composition/information	on ingredients		
SARA 304 RQ	: Not applicable.		
<u>SARA 311/312</u>			
Classification	: Not applicable.		
Composition/information	<u>on ingredients</u>		
No products were found.			
State regulations			
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.		
Pennsylvania	: None of the components are listed.		

California Prop. 65 Clear and Reasonable Warnings (2018)

Section 15. Regulatory information

WARNING: This product can expose you to Ethyl acrylate, which is 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
ethyl acrylate	<0.001	Yes.	No.	-	-
ternational regulations ventory list	1	1			1
Inite of Ototop					

United States	: All components are listed or exempted.
Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: Not determined.
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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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

	Classification	Justification
Not classified.		
History		
Date of printing	: 10/5/2020	
Date of issue/Date of revision	: 10/5/2020	
Date of previous issue	: 12/13/2018	
Version	: 5	

Section 16. Other information

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 = Internediate Bulk Container IMDG = 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)
References	UN = United Nations : Not available.

✓ Indicates information that has changed from previously issued version.

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