SAFETY DATA SHEET

CITGO Pacemaker® SD 460 Oil

Section 1. Identification

GHS product identifier	: CITGO Pacemaker® SD 460 Oil	
Synonyms	: Lubricating oil; CITGO [®] Material Code: 633047001	
Code	: 633047001	
MSDS #	: 633047001	
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 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	: Not classified.	

GHS label elements Signal word : Warning **Hazard statements** : Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor. **Precautionary statements** 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. : Not applicable. Response Store in a dry place and/or in closed container. Store in accordance with all local, Storage 1 regional, national and international regulations. Disposal Dispose of contents and container in accordance with all local, regional, national and 5 international regulations. Hazards not otherwise Injection of petroleum hydrocarbons requires immediate medical attention. ε. classified

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture	
Other means of identification	: Lubricating oil; CITGO [®] Material Code: 633047	7001

substance or mixture

CAS number	: Not applicable.

Date of issue/Date of revision



Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Residual oils (petroleum), solvent-dewaxed	≥90	64742-62-7

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 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	 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, protective 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 containment 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

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
	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). : 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

Residual oils (petroleum), solvent-dewaxed

ACGIH TLV (United States, 6/2013). TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction

NIOSH REL (United States, 4/2013). TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist OSHA PEL (United States, 2/2013). TWA: 5 mg/m³ 8 hours.

Appropriate engineering controls	d general ventilation should be sufficient to control w aminants.	orker exposure to airborne
Environmental exposure controls	ssions from ventilation or work process equipment sl comply with the requirements of environmental prote s, vapor controls, filters or engineering modifications ecessary to reduce emissions to acceptable levels.	ection legislation. In some
Individual protection measu		
Hygiene measures	h hands, forearms and face thoroughly after handlin ig, smoking and using the lavatory and at the end of opriate techniques should be used to remove potent h contaminated clothing before reusing. Ensure that vers are close to the workstation location.	the working period. tially contaminated clothing.
Eye/face protection	ty glasses equipped with side shields are recommen- strial settings. If contact is possible, the following pro- assessment indicates a higher degree of protection: ty eyewear complying with an approved standard sh assment indicates this is necessary to avoid exposur- as or dusts. If inhalation hazards exist, a full-face res- ad.	otection should be worn, unless chemical splash goggles. ould be used when a risk e to liquid splashes, mists,
Skin protection		
Hand protection	nical-resistant gloves complying with an approved s s when handling chemical products if a risk assessm	
Body protection	onal protective equipment for the body should be se ormed and the risks involved and should be approve Iling this product.	
Other skin protection	d skin contact with liquid. Appropriate footwear and sures should be selected based on the task being pe should be approved by a specialist before handling t protective for liquid contact.	erformed and the risks involved
Respiratory protection	d inhalation of gases, vapors, mists or dusts. Use a lied-air respirator complying with an approved stand ates this is necessary. Respirator selection must be	ard if a risk assessment

respirator.

exposure levels, the hazards 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 amber to black.
Odor	: Mild petroleum odor
рН	: Not available.
Boiling point	: Not available.
Flash point	: Open cup: 306°C (582.8°F) [Cleveland.]
Evaporation rate	: <1 (n-butyl acetate. = 1)
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: <0.0013 kPa (<0.01 mm Hg) [room temperature]
Vapor density	: >1 [Air = 1]
Relative density	: 0.9
Density lbs/gal	: Estimated 7.5 lbs/gal
Density gm/cm ³	: Not available.
Gravity, °API	: Estimated 26 @ 60 F
Solubility	: Insoluble in the following materials: cold water.
Flow time (ISO 2431)	: Not available.
Viscosity	: Kinematic (room temperature): 4.5 cm ² /s (450 cSt)

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 toxicologica	<u>l effects</u>
Acute toxicity	
Not available.	
Conclusion/Summary	: No additional information.
Irritation/Corrosion	
Not available.	
Skin	: No additional information.
Eyes	: No additional information.
Respiratory	: No additional information.
Sensitization	
Not available.	

Section 11. Toxicological information

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 toxic	ity (single exposure)
Not available.	
Specific target organ toxic	ity (repeated exposure)
Not available.	
Aspiration hazard	
Not available.	
Information on the likely	: Routes of entry anticipated: Dermal.
routes of exposure	
Potential acute health effect	
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 ph	vsical, chemical and toxicological characteristics
Eye contact	
	: No specific data.
Inhalation	No specific data. No specific data.
Inhalation	: No specific data.
Inhalation Skin contact Ingestion	 No specific data. No specific data. No specific data.
Inhalation Skin contact Ingestion Delayed and immediate effe	 No specific data. No specific data.
Inhalation Skin contact Ingestion <u>Delayed and immediate effe</u> <u>Short term exposure</u>	 No specific data. No specific data. No specific data. No specific data.
Inhalation Skin contact Ingestion Delayed and immediate effe	 No specific data. No specific data. No specific data.
Inhalation Skin contact Ingestion <u>Delayed and immediate effe</u> <u>Short term exposure</u> Potential immediate	 No specific data. No specific data. No specific data. No specific data.
Inhalation Skin contact Ingestion <u>Delayed and immediate effe</u> <u>Short term exposure</u> Potential immediate effects	 No specific data. No specific data. No specific data. No specific data.
Inhalation Skin contact Ingestion Delayed and immediate effe Short term exposure Potential immediate effects Potential delayed effects Long term exposure Potential immediate	 No specific data. No specific data. No specific data. No specific data.
Inhalation Skin contact Ingestion Delayed and immediate effe Short term exposure Potential immediate effects Potential delayed effects Long term exposure Potential immediate effects	 No specific data. No specific data. No specific data. ects and also chronic effects from short and long term exposure Not available. Not available. Not available.
Inhalation Skin contact Ingestion Delayed and immediate effe Short term exposure Potential immediate effects Potential delayed effects Long term exposure Potential immediate effects Potential delayed effects Potential delayed effects	 No specific data. No specific data. No specific data. No specific data. ects and also chronic effects from short and long term exposure Not available. Not available. Not available. Not available.
Inhalation Skin contact Ingestion Delayed and immediate effe Short term exposure Potential immediate effects Potential delayed effects Long term exposure Potential immediate effects	 No specific data. No specific data. No specific data. No specific data. ects and also chronic effects from short and long term exposure Not available. Not available. Not available. Not available.

Date of issue/Date of revision

Section 11. Toxicological information

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

<u>Toxicity</u>	
Not available.	
Conclusion/Summary	: Not available.
Persistence and degradabilit	Υ
Conclusion/Summary	: Not available.
Bioaccumulative potential	
Not available.	
<u>Mobility in soil</u>	
Soil/water partition coefficient (Koc)	: Not available.
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
	sewers.

Section 14. Transport information

	DOT Classification	IMDG	ΙΑΤΑ
UN number	Not regulated.	Not available.	Not available.
UN proper shipping name	-	Not available.	Not available.
Transport hazard class(es)	-	Not available.	Not available.
Packing group	-	-	-
Date of issue/Date of r	• revision : 10/6/2020 Da	te of previous issue : 5/20/2020	Version : 8 7/-

Section 14. Transport information

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 T	PQ	SARA 304 F	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 [423048 gal / 1601410.9 L]

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

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.

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.

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.		
	Canada	: All components are listed or exempted.
United States : All components are listed or exempted.	Australia	: All components are listed or exempted.
	United States	: All components are listed or exempted.

Date of issue/Date of revision : 10/6/2020	Date of previous issue	: 5/20/2020	Version : 8	8/10
--	------------------------	-------------	-------------	------

Section 15. Regulatory information

-
: All components are listed or exempted.
: All components are listed or exempted.
: Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.
: Not determined.
: All components are listed or exempted.
: All components are listed or exempted.
: All components are listed or exempted.
: Not determined.

Section 16. Other information

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



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

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	: 10/6/2020		
Date of issue/Date of revision	: 10/6/2020		
Date of previous issue	: 5/20/2020		
Version	: 8		
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) UN = United Nations 		
References	: Not available.		
Indicates information the	at has changed from previously issued version.		
Notice to reader			

Section 16. Other information

THE INFORMATION IN THIS SAFETY DATA SHEET (SDS) WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESSED OR IMPLIED REGARDING ITS CORRECTNESS OR ACCURACY. SOME INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE SUBSTANCE ITSELF. THIS SDS WAS PREPARED AND IS TO BE USED ONLY FOR THIS PRODUCT. IF THE PRODUCT IS USED AS A COMPONENT IN ANOTHER PRODUCT, THIS SDS INFORMATION MAY NOT BE APPLICABLE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION OR PRODUCTS FOR THEIR PARTICULAR PURPOSE OR APPLICATION.

THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE, AND/OR DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR ANY LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.

CITGO is a registered trademark of CITGO Petroleum Corporation