SAFETY DATA SHEET

Section 1. Identification

GHS product identifier	: Clarion [®] Food Machinery Grease, No. 2
Synonyms	: Lubricating grease; CITGO [®] Material Code: 655699009
Material uses	: Lubricating grease
Code	: 655699009
MSDS #	: 655699009

Relevant identified uses of the substance or mixture and uses advised against Not applicable.

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 (M-F, 8 AM to 4 PM) Medical Emergency: (832) 486-4700 (24 Hr) CHEMTREC Emergency: (800) 424-9300 (24 Hr) (United States Only)

Section 2. Hazards identification

OSHA/HCS status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).		
Classification of the substance or mixture	Not classified.		
GHS label elements			
Signal word	: No signal word.		
Hazard statements	: No known significant effects or critical hazards.		
Precautionary statements			
General	: Keep out of reach of children.		
Prevention	: Do not get in eyes, on skin, or on clothing.		
Response	: Wash with plenty of soap and water or use a recognized skin cleanser.		
Storage	: Store in accordance with all local, regional, national and international regulations. Store in a dry place and a closed container. Empty containers may contain material residues which can ignite with explosive force. Misuse of empty containers can be dangerous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers can cause fire, explosion, or release of toxic fumes from residues. Do not pressurize or expose empty containers to open flame, sparks, or heat. Keep container closed and drum bungs in place. All label warnings and precautions must be observed. Return empty drums to a qualified reconditioner. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling, or disposing of empty containers and/or waste residues of this material.		
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.		
Hazards not otherwise classified	 Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor. Injection of petroleum hydrocarbons requires immediate medical attention. 		

Section 3. Composition/information on ingredients

Substance/mixture Other means of identification

: Mixture

: Lubricating grease;

CITGO® Material Code: 655699009

CAS number/other identifiers

CAS number

: Not applicable.

Ingredient name	%	CAS number
White mineral oil (petroleum)	≥75 - ≤90	8042-47-5
calcium(2+) 12-hydroxyoctadecanoate	≥10 - ≤25	3159-62-4

* = 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 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/symp	<u>otoms</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)

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Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	: No specific fire or explosion hazard.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides
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	tiv	e 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	nta	ainment and cleaning up
Small spill	:	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. 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 hand	<u>ing</u>
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.

Section 7. Handling and storage

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: Do not apply heat or flame to stockpiled material. Rotate stock to reduce the potential for hot spots. Do not store with oxidizers. Minimize dust creation by keeping material moist and/or covered.

Section 8. Exposure controls/personal protection

Control parameters				
Occupational exposure lin	<u>nits</u>			
White mineral oil (petroleur	1)	OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. ACGIH TLV (United States, 1/2021). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction NIOSH REL (United States, 10/2020). TWA: 5 mg/m ³ 10 hours. Form: Mist STEL: 10 mg/m ³ 15 minutes. Form: Mist		
calcium(2+) 12-hydroxyocta	decanoate	ACGIH TLV (United States). TWA: 10 mg/m ³ 8 hours.		
Appropriate engineering controls	: Good general ventilation sho contaminants.	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.		
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 wil be necessary to reduce emissions to acceptable levels.		
Individual protection meas	<u>ires</u>			
Hygiene measures	eating, smoking and using the Appropriate techniques show Wash contaminated clothing	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.		
Eye/face protection	industrial settings. If contac the assessment indicates a an approved standard shoul necessary to avoid exposure	Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: 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		Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary		
Body protection	: Personal protective equipme performed and the risks invo handling this product.	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.		
Other skin protection		ny additional skin protection measures should be selected formed and the risks involved and should be approved by a is product.		
Respiratory protection	respirator complying with an necessary. Respirator selec	apors, mists or dusts. Use a properly fitted, particulate filter approved standard if a risk assessment indicates this is ction must be based on known or anticipated exposure oduct and the safe working limits of the selected respirator.		

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Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

<u>Appearance</u>	
Physical state	: Solid. [Smooth texture]
Color	: Off-white.
Odor	: Faint odor.
рН	: Not available.
Boiling point, initial boiling point, and boiling range	: Not available.
Flash point	: Open cup: >150°C (>302°F) [Estimated]
Evaporation rate	: <1 (n-butyl acetate. = 1)
Lower and upper explosive (flammable) limits	: Lower: 1% Upper: 7%
Vapor pressure	: >0.013 kPa (>0.1 mm Hg)
Relative vapor density	: >10 [Air = 1]
Relative density	: 0.88
Density lbs/gal	: Estimated 7.34 lbs/gal
Density gm/cm ³	: Not available.
Gravity, °API	: Estimated 29 @ 60 F
Solubility	: Insoluble in the following materials: cold water.
Auto-ignition temperature	: Lowest known value: >158°C (>316.4°F) (calcium(2+) 12-hydroxyoctadecanoate).
NLGI Grade	: 2
Flow time (ISO 2431)	: Not available.
Particle characteristics	
Median particle size	: Not available.

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

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Information on toxicological effects Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
White mineral oil (petroleum)	LD50 Dermal LD50 Oral		>2000 mg/kg >5000 mg/kg	-

Conclusion/Summary

Section 11. Toxicological information

Section 11. Toxic	cological information
	White mineral oil (petroleum): Low-viscosity and High-viscosity White Mineral Oils: ^[25,45,50,70] DRAIZE EYE, Acute: Non-irritating [Rabbit].
	DRAIZE DERMAL, Acute: Non-irritating [Rabbit]. BUEHLER, Acute: Non-sensitizing [Guinea Pig]. 28-Day DERMAL, Sub-Chronic: Non-irritating [Rabbit].
	104-Week DERMAL, Sub-Chronic: No skin tumors at site of application [Mouse]. MUTAGENICITY:
	Modified Ames Assay: Negative [Salmonella typhimurium]. in-vitro Lymphoma Assay: Negative or no toxicity [Mouse].
	Lifetime mouse skin painting studies indicated that white mineral oils are not mutagenic or carcinogenic. 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. In long term studies (up to two years) no carcinogenic effects have been reported in any animal species tested.
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 Reproductive toxicity Not available.	: No additional information.
Conclusion/Summary <u>Teratogenicity</u> Not available.	: No additional information.
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.	

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Section 11. Toxicological information

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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	:	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	physical, chemical and	toxicological characteristics

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure					
Potential immediate effects	:	Not available.			
Potential delayed effects	:	Not available.			
<u>Long term exposure</u>					
Potential immediate effects	:	Not available.			
Potential delayed effects	:	Not available.			
Potential chronic health effects					

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.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)		(vapors)	Inhalation (dusts and mists) (mg/ I)
,	N/A N/A	N/A N/A	N/A N/A	N/A N/A

Section 12. Ecological information

Toxicity					
Product/ingredient name	Result	Species	Exposure		
White mineral oil (petroleum)	LC50 >2000 mg/l	Fish	96 hours		
Conclusion/Summary	: Not available.				

Persistence and degradability

Conclusion/Sum	mary : Not av	ailable.		
Product/ingredient	name Aquatic	half-life	Photolysis	Biodegradability
White mineral oil (pe	etroleum) -		-	Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
White mineral oil (petroleum)	>6	-	high

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 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 regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

Section 14. Transport information

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 IMO instruments

Section 15. Regulatory information

U.S. Federal regulations	: United States inventory (TSCA 8b): All components are listed or exempted. 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 304 RQ	: Not applicable.		
<u>SARA 311/312</u>			
Classification	: HNOC - Injection Hazards		
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.		
International regulations			

Rotterdam Convention on Prior Informed Consent (PIC) Not listed.

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 (CSCL): All components are listed or exempted. 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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Procedure used to derive the classification

	Classification	Justification
Not classified.		
History		
Date of printing	: 6/28/2022	
Date of issue/Date of revision	: 6/28/2022	
Date of previous issue	: 7/10/2020	
Version	: 5	
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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