SAFETY DATA SHEET

Clarion® PM Hi-Temp Food Machinery 100 Grease, NLGI 2



Section 1. Identification

GHS product identifier

: Clarion® PM Hi-Temp Food Machinery 100 Grease, NLGI 2

Synonyms

: Lubricating grease

Material uses Code

: Lubricating grease

MSDS#

655722009

: 655722009

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

: 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

: 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 Response **Storage**

: 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.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise

Injection of petroleum hydrocarbons requires immediate medical attention.

classified

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Lubricating grease

CAS number/other identifiers

CAS number : Not applicable.

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Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
White mineral oil (petroleum) Aluminum, benzoate hydrogenated tallow fatty acid iso-Pr alc. complexes calcium carbonate 2,6-di-tert-butyl-p-cresol	≥75 - ≤90 ≤10 ≤8.1 ≤1.8	8042-47-5 68647-58-5 471-34-1 128-37-0

^{* =} 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 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.

Over-exposure signs/symptoms

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

Indication of immediate medical 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 phosphorus oxides 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, 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

: 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 handling

Protective measures
Advice on general
occupational hygiene

- : Put on appropriate personal protective equipment (see Section 8).
- : 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.

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Section 7. Handling and storage

including any incompatibilities

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 (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 limits

White mineral oil (petroleum)

Aluminum, benzoate hydrogenated tallow fatty acid iso-Pr alc. complexes

calcium carbonate

2,6-di-tert-butyl-p-cresol

OSHA PEL (United States, 5/2018).

TWA: 5 mg/m³ 8 hours.

ACGIH TLV (United States, 3/2019). TWA: 5 mg/m³ 8 hours. Form: Inhalable

NIOSH REL (United States, 10/2016).

TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist

ACGIH TLV (United States).

TWA: 10 mg/m3 8 hours.

NIOSH REL (United States, 10/2016). TWA: 2 mg/m³, (as Al) 10 hours.

NIOSH REL (United States, 10/2016).

TWA: 5 mg/m³ 10 hours. Form: Respirable

fraction

TWA: 10 mg/m3 10 hours. Form: Total ACGIH TLV (United States, 3/2019).

TWA: 2 mg/m³ 8 hours. Form: Inhalable

fraction and vapor

NIOSH REL (United States, 10/2016).

TWA: 10 mg/m3 10 hours.

Appropriate engineering controls

Environmental exposure controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

: 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 measures

Hygiene measures

: 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

: 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.

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Section 8. Exposure controls/personal protection

Body protection

: 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

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Avoid inhalation of gases, vapors, mists or dusts. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Solid. Color : Off-white. Odor : Faint odor. Ha Not available. **Boiling point** : Not available.

Flash point : Open cup: >150°C (>302°F) [Estimated]

Evaporation rate : >1 (butyl acetate = 1)

Lower and upper explosive

(flammable) limits

: Not available.

Vapor pressure : <0.13 kPa (<1 mm Hg) [room temperature]

Vapor density : >1 [Air = 1] **Relative density** : 0.92

: Estimated 7.67 lbs/gal Density Ibs/gal

Density gm/cm³ : Not available.

Gravity, °API : Estimated 22 @ 60 F

Solubility : Insoluble in the following materials: cold water.

Flow time (ISO 2431) : Not available.

NLGI Grade : 2

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.

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Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
White mineral oil (petroleum)	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
calcium carbonate	LD50 Oral	Rat	6450 mg/kg	-
2,6-di-tert-butyl-p-cresol	LD50 Oral	Mouse	650 mg/kg	-
	LD50 Oral	Rat	890 mg/kg	-
	LD50 Oral	Rat	890 mg/kg	-

Conclusion/Summary

: 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, 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

Product/ingredient name	Result	Species	Score	Exposure	Observation
calcium carbonate	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	
	Eyes - Mild irritant	Rabbit	-	-	_
	Respiratory - Irritant	Rabbit	-	_	_
2,6-di-tert-butyl-p-cresol	Eyes - Moderate irritant	Rabbit	-	24 hours 100	_
• .				mg	
	Skin - Mild irritant	Human	-	48 hours 500	_
				mg	
	Skin - Moderate irritant	Rabbit	-	48 hours 500	_
				mg	

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.

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Section 11. Toxicological information

Conclusion/Summary: No additional information.

Classification

Product/ingredient name	OSHA	IARC	NTP
2,6-di-tert-butyl-p-cresol	-	3	-

Reproductive toxicity

Not available.

Conclusion/Summary

: No additional information.

Teratogenicity

Not available.

Conclusion/Summary: No additional information.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely

routes of exposure

: Routes of entry anticipated: Dermal.

Potential acute health effects

Eye contactInhalationNo known significant effects or critical hazards.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 : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

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.

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Section 11. Toxicological information

Developmental effects

: No known significant effects or critical hazards.

Fertility effects

: No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
White mineral oil (petroleum) calcium carbonate	LC50 >2000 mg/l Acute LC50 >56000 ppm Fresh water Chronic NOEC 61 mg/g Fresh water	Fish Fish - Gambusia affinis - Adult Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling,	96 hours 96 hours 28 days
2,6-di-tert-butyl-p-cresol	Acute EC50 1440 μg/l Fresh water	Weanling) Daphnia - Daphnia pulex - Neonate	48 hours

Conclusion/Summary

: Not available.

Persistence and degradability

Conclusion/Summary: Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
White mineral oil (petroleum)	-	-	Not readily

Bioaccumulative potential

Product/ingredient name Log	ogP _{ow}	BCF	Potential
White mineral oil (petroleum) >6		-	high
2,6-di-tert-butyl-p-cresol 5.1		330 to 1800	high

Mobility in soil

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.

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Section 14. Transport information

	DOT Classification	IMDG	IATA
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	-	-	-
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 to Annex II of MARPOL and

to Annex II of MARPOL the IBC Code

: Not available.

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.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

Name	%	Classification
calcium carbonate		SKIN IRRITATION - Category 2
2,6-di-tert-butyl-p-cresol	≤1.8	EYE IRRITATION - Category 2A ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A

State regulations

Massachusetts : The following components are listed: 2,6-di-tert-butyl-p-cresol

New York : None of the components are listed.

New Jersey : The following components are listed: 2,6-DI-tert-BUTYL-p-CRESOL; PHENOL, 2,6-BIS

(1,1-DIMETHYLETHYL)-4-METHYL-

Pennsylvania : The following components are listed: PHENOL, 2,6-BIS(1,1-DIMETHYLETHYL)

-4-METHYL-

International regulations

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Section 15. Regulatory information

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.

Europe : All components are listed or exempted.

Japan inventory (ENCS): Not determined.

Japan inventory (ISHL): Not determined.

Malaysia : Not determined.New Zealand : Not determined.

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

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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 = Intermediate 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

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Section 16. Other information

References

: Not available.

Indicates information that has changed from previously issued version.

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