



Material Safety Data Sheet

CITGO Petroleum Corporation P.O. Box 3758 Tulsa, OK 74102-3758

MSDS No.

655399001

Revision Date

02/27/2003

IMPORTANT: Read this MSDS before handling or disposing of this product and pass this information on to employees, customers and users of this product.

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Emergency	Ove	rview
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Physical State

Semi-solid to solid (Smooth texture)

Color

Green.

Odor

Mild petroleum odor

WARNING:

Injection under the skin can cause severe injury.

Most damage occurs in the first few hours.

Initial symptoms may be minimal.

Hot grease will cause thermal burns upon contact.

Spills may create a slipping hazard.

Hazard Rankings				
	HMIS	NFPA		
Health Hazard	1	0		
Fire Hazard	1	1		
Reactivity	0	0		
*= Chronic Health Hazard				

Protective Equipment

Minimum Recommended See Section 8 for Details







SECTION 1: IDENTIFICATION

Trade Name

CITGO Overdrive HubGard Grease

Technical Contact

(800) 248-4684

Product Number

655399001

Medical Emergency

(918) 495-4700

CAS Number

Mixture.

CHEMTREC Emergency (United States Only) (800) 424-9300

Product Family

Lubricating grease

Synonyms

Lubricating grease;

CITGO SAP Product Code No.: 655399001

SECTION 2: COMPOSITION

Component Name(s)

1) 1-Decene homopolymer, hydrogenated

2) Lithium Carboxylate Soaps

3) Proprietary Ingredients

CAS Registry No.

Concentration (%)

68037-01-4 Proprietary Mixture 70 - 90 1 - 10

Proprietary Mixture

1 - 10

SECTION 3: HAZARDS IDENTIFICATION

Also see Emergency Overview and Hazard Ratings on the top of Page 1 of this MSDS.

Major Route(s) of Entry Skin contact.

Signs and Symptoms of Acute Exposure

Inhalation

No significant adverse health effects are expected to occur upon short-term exposure at ambient temperatures. At elevated temperatures, product vapor may cause respiratory tract irritation. Repeated or prolonged overexposure to product mists can result in respiratory tract inflammation and an increased risk of infection.

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Eye Contact	This material can cause mild eye irritation from contact with product or product mists.						
Skin Contact	This material can cause mild skin irritation from prolonged or repeated skin contact. Injection under the skin can cause inflammation and swelling. Injection of pressurized hydrocarbons can cause severe, permanent tissue damage. Initial symptoms may be minor. Injection of petroleum hydrocarbons requires immediate medical attention. Skin contact with hot material may result in severe burns.						
Ingestion	This material can cause intestine.	a laxative effect. If s	wallowe	ed in large quantities, t	this mate	erial can obstruct t	the
Chronic Health Effects Summary	inflammation characterize of petroleum-based mine	based mineral oil. Prolonged or repeated skin contact can cause mild irritation and rized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation ineral oil mists at concentrations above applicable workplace exposure levels can tion or other pulmonary effects.					
Conditions Aggravated by Exposure	Medical conditions aggr	avated by exposure to	o this m	aterial may include pr	e-existin	g skin disorders.	
Target Organs	This material may cause	e damage to the follow	ving org	ans: skin.			
Carcinogenic Potential	This product does not co carcinogenic by OSHA,	not contain any components at concentrations above 0.1% which are considered SHA, IARC or NTP.					
OSHA Hazard Classificati hazard as defined in the C	OSHA Hazard Classification is indicated by an "X" in the box adjacent to the hazard title. If no "X" is present, the product does not exhibit the hazard as defined in the OSHA Hazard Communication Standard (29 CFR 1910.1200).						
OSHA Health Haz	ard Classification	OSHA Physical Hazard Classification					
Irritant T	oxic	Combustible		Explosive		Pyrophoric	
Sensitizer H	ighly Toxic	Flammable		Oxidizer		Water-reactive	
Corrosive C	arcinogenic	Compressed Gas		Organic Peroxide		Unstable	
Take proper precaution	ST AID MEASURE	alth and safety before	e attemp	oting rescue or provid	ing first :	aid. For more spe	ecific
Inhalation	n, refer to Exposure Controls and Personal Protection in Section 8 of this MSDS. Vaporization is not expected at ambient temperatures. This material is not expected to cause inhalation-related disorders under anticipated conditions of use. In case of overexposure, move the person to fresh air.						
Eye Contact		for and remove contact lenses. Flush eyes with cool, clean, low-pressure water while onally lifting and lowering eyelids. Seek medical attention if excessive tearing, redness, or pain s.					
Skin Contact	product at ambient Wash exposed ski pain or irritation pe	urned by hot material, cool skin by quenching with large amounts of cool water. For contact with duct at ambient temperatures, remove contaminated shoes and clothing. Wipe off excess material. sh exposed skin with mild soap and water. Seek medical attention if tissue appears damaged or if nor irritation persists. Thoroughly clean contaminated clothing before reuse. Discard contaminated her goods. If material is injected under the skin, seek medical attention immediately.					
Ingestion	anything by mouth	vomiting unless directed to by a physician. Rinse out mouth with water. Never give buth to a person who is not fully conscious. Allow small quantities to pass through the m. If large amounts are swallowed or irritation or discomfort occurs, seek medical diately.					
Notes to Physician	debridement and s	event of injection in underlying tissue, immediate treatment should include extensive incision, ement and saline irrigation. Inadequate treatment can result in ischemia and gangrene. Early oms may be minimal.					

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SECTION 5: FIRE FIGHTING MEASURES

NFPA Flammability

Classification

NFPA Class-IIIB combustible material.

Flash Point Method

OPEN CUP: >150°C (>302°F) (Estimated).

Lower Flammable Limit

No data.

Upper Flammable Limit

No data.

Autoignition Temperature

Not available.

Hazardous

Combustion Products

Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and trace oxides of sulfur,

phosphorus, zinc and/or nitrogen.

Special Properties

Fight the fire from a safe distance in a protected location. Open any masses with a water stream to prevent reignition due to smoldering. Cool surface with water fog. Molten material can form flaming droplets if ignited. Water or foam can cause frothing. Use of water on product above 100° C (212° F) can cause product to expand with explosive force. Do not allow liquid runoff to enter sewers or public

waters.

Extinguishing Media

Use dry chemical, foam, Carbon Dioxide or water fog.

Protection of Fire Fighters

Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. For more specific information, refer to the Emergency Overview on Page 1, Exposure Controls and Personal Protection in Section 8 and Disposal Considerations in Section 13 of this MSDS.

> Do not touch damaged containers or spilled material unless wearing appropriate protective equipment. Slipping hazard; do not walk through spilled material. Stop leak if you can do so without risk. For small spills, absorb or cover with dry earth, sand, or other inert non-combustible absorbent material and place into waste containers for later disposal. Contain large spills to maximize product recovery or disposal. Prevent entry into waterways or sewers. In urban area, cleanup spill as soon as possible. In natural environments, seek cleanup advice from specialists to minimize physical habitat damage. This material will float on water. Absorbent pads and similar materials can be used. Comply with all laws and regulation

SECTION 7: HANDLING AND STORAGE

Handling

If this product is stored or applied in high-pressure systems such as grease guns or hydraulic lines, there is the potential for accidental injection into the skin and underlying tissues. Hydrocarbons injected into skin or underlying tissues are not readily removed by body fluids and can cause pain, swelling, chemical irritation, infection and tissue destruction. Early symptoms may be minimal. Workers must be aware of the significant hazards associated with a hydrocarbon injection injury. In the event of an injection injury, workers should seek medical treatment immediately. Avoid water contamination and elevated temperatures to minimize product degradation. Empty containers may contain product residues that can ignite with explosive force. Do not pressurize, cut, weld, braze solder, drill, grind or expose containers to flames, sparks, heat or other potential ignition sources. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.

Storage

Keep container closed. Do not store with strong oxidizing agents. Do not store at elevated temperatures. Avoid storing product in direct sunlight for extended periods of time. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers or waste residues of this product.

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SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation controls are not normally required under anticipated conditions of use. Provide exhaust **Engineering Controls**

ventilation or other engineering controls if airborne mists or vapors concentrations exceed

recommended occupational exposure limits listed below. An eye wash station and safety shower

should be located near the work-station.

Personal Protective Equipment

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations. The following pictograms represent the minimum requirements for personal protective equipment. For certain operations, additional PPE may be required.



Safety glasses equipped with side shields are recommended as minimum protection in industrial **Eve Protection** settings. Wear goggles and/or face shield if splashing or spraying is anticipated. Wear goggles and

face shield if material is heated above 125°F (51°C). Have suitable eye wash water available.

Use gloves constructed of chemical resistant materials such as neoprene or heavy nitrile rubber if Hand Protection

frequent or prolonged contact is expected. Use heat-protective gloves when handling product at

elevated temperatures.

Use clean and impervious protective clothing (e.g., neoprene or Tyvek®) if splashing or spraying **Body Protection**

conditions are present. Protective clothing may include long-sleeve outer garment, apron, or lab coat. If significant contact occurs, remove oil-contaminated clothing as soon as possible and promptly shower. Launder contaminated before reuse or discard. Wear heat protective boots and protective

clothing when handling material at elevated temperatures.

Vaporization is not expected at ambient temperatures. Therefore, the need for respiratory protection is Respiratory Protection

not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements

(29 CFR 1910.134).

General Comments Use good personal hygiene practices. Wash hands and other exposed skin areas with plenty of mild

soap and water before eating, drinking, smoking, use of toilet facilities, or leaving work. DO NOT use

gasoline, kerosene, solvents or harsh abrasives as skin cleaners. Since specific exposure

standards/control limits have not been established for this product, the "Oil Mist, Mineral" exposure

limits shown below are suggested as minimum control guidelines.

Occupational Exposure Guidelines

Substance

1) Oil Mist, Mineral

Applicable Workplace Exposure Levels

ACGIH (United States). TWA: 5 mg/m³ STEL: 10 mg/m3 OSHA (United States).

TWA: 5 mg/m³

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (TYPICAL)

Physical State

Semi-solid to solid

Color Green.

Odor

Mild petroleum odor

Specific Gravity

(Smooth texture) 0.88 (Water = 1)

Not Applicable. Нq

Vapor Density >1 (Air = 1)

Boiling Range

Melting/Freezing

Not available.

Not available.

Point

Vapor Pressure

<0.1 kPa (<1 mmHg) (at 20°C)

Viscosity (cSt @ 40°C) Not available

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Solubility in Water

Insoluble in cold water.

Volatile Characteristics Negligible volatility

Additional Properties NLGI Grade: 00

Thickener: Lithium Texture: Smooth

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability

Stable.

Hazardous Polymerization Not expected to occur.

Conditions to Avoid

Keep away from extreme heat, sparks, open flame, and strongly oxidizing conditions.

Materials Incompatibility

Strong oxidizers.

Hazardous

No additional hazardous decomposition products were identified other than the combustion products

Decomposition Products

identified in Section 5 of this MSDS.

SECTION 11: TOXICOLOGICAL INFORMATION

For other health-related information, refer to the Emergency Overview on Page 1 and the Hazards Identification in Section 3 of this MSDS.

Toxicity Data

Grease:

Injection of pressurized hydrocarbons under the skin, in muscle or into the blood stream can cause irritation, inflammation, swelling, fever and mild central nervous system depression. Injection of pressurized hydrocarbons can cause severe, permanent tissue damage.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity data are not available for this product.

Environmental Fate

An environmental fate analysis has not been conducted on this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum-based products. Petroleum-based (mineral) lube oils will normally float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.

Conditions of use may cause this material to become a "hazardous waste", as defined by federal or state regulations. It is the responsibility of the user to determine if the material is a "hazardous waste" at the time of disposal. Transportation, treatment, storage, and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulations may be more restrictive. Contact the RCRA/Superfund Hotline at (800) 424-9346 or your regional US EPA office for guidance concerning case specific disposal issues. Empty drums and pails retain residue. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose this product's empty container to heat, flame, or other ignition sources. DO NOT attempt to clean it. Empty drums and pails should be drained completely, properly bunged or sealed, and promptly sent to a reconditioner.

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SECTION 14: TRANSPORT INFORMATION

The shipping description below may not represent requirements for all modes of transportation, shipping methods or locations outside of the United States.

US DOT Status

Not regulated by the U.S. Department of Transportation as a hazardous material.

Proper Shipping Name

Not regulated.

Hazard Class

Not regulated.

Packing Group(s)

Not applicable.

UN/NA ID

Not regulated.

Reportable Quantity

A Reportable Quantity (RQ) has not been established for this material.

Placards

Emergency Response Guide

No.

Not applicable.

HAZMAT STCC No.

Not available

MARPOL III Status

Not a DOT "Marine Pollutant"

per 49 CFR 171.8.

SECTION 15: REGULATORY INFORMATION

TSCA Inventory

This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

SARA 302/304 The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject

to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances"

listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.

SARA 311/312 The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject

to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40

CFR 370.2. This material would be classified under the following hazard categories:

No SARA 311/312 hazard categories identified.

SARA 313 This product contains the following components in concentrations above de minimis levels that are

listed as toxic chemicals in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA: No

components were identified.

CERCLA The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)

requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances

present in this product or refinery stream that may be subject to this statute are:

Zinc and Zinc Compounds, Concentration: 0 - 1%

CWA 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.

California Proposition 65 This product is not known to contain the any components for which the State of California has found to

cause cancer, birth defects or other reproductive harm.

New Jersey Right-to-Know Label Petroleum Oil

Additional Regulatory

Remarks

No additional regulatory remarks.

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SECTION 16: OTHER INFORMATION

Refer to the top of Page 1 for the HMIS and NFPA Hazard Ratings for this product.

REVISION INFORMATION

Version Number

1.00

Revision Date

02/27/2003

Print Date

Printed on 02/27/2003.

ABBREVIATIONS

AP: Approximately

EQ: Equal

al >: Greater Than

<: Less Than

NA: Not Applicable

ND: No Data

NE: Not Established

ACGIH: American Conference of Governmental Industrial Hygienists

AlHA: American Industrial Hygiene Association NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

Transmit Toxicolog

NIOSH: National Institute of Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

NPCA: National Paint and Coating Manufacturers Association

HMIS: Hazardous Materials Information System

NFPA: National Fire Protection Association

EPA: US Environmental Protection Agency

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