

SAFETY DATA SHEET



SHIPMATE Hi-Performance Lower Unit Gear Lube

Section 1. Identification

GHS product identifier : Shipmate Hi-Performance Lower Unit Gear Lube
Synonyms : Gear Oil
Product Code : 5062

Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Lubricating Oil
Supplier Details : Como Lube & Supplies, Inc.
PO Box 16987
Duluth, MN 55802

Emergency telephone number : Technical Contact: 800-962-5417
National Poison Center: 800-222-1222, CHEMTREC 800-424-9300

Section 2. Hazard 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 : SKIN CORROSION/IRRITATION - Category 2
SKIN SENSITIZATION - Category 1
EYE IRRITATION – Category 2B

GHS Label elements

Hazard pictograms



Signal word

Hazard statements

: Warning
: Inhalation: Prolonged inhalation may be harmful. Avoid breathing dust /fume /gas /mist /vapors /spray.
Eye Contact: Eye contact may result in corneal injury. Contact may irritate or burn eyes. Do not get this material in contact with eyes.
Skin Contact: Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Avoid contact with the skin.
Ingestion: Components of the product may be absorbed into the body by ingestion. Do not ingest.

Precautionary statements

General

Prevention

Response

Storage

Disposal

: Avoid contact with eyes, skin and clothing. May be harmful if swallowed. IF IN EYES: Rinse cautiously with water for several minutes. IF SWALLOWED: DO NOT induce vomiting. After handling, always wash hands thoroughly with soap and water. Keep out of reach of children.
: Not applicable.
: Not applicable.
: Store in dry place and/or in closed container. Store in accordance with all local, regional, national and international regulations.
: Dispose of contents and container in accordance with all local, regional, national and international regulations.
: TWA: 5mg/m³ as mist. ACGIH 1984-85.

Hazards not otherwise classified : TWA: 5mg/m³ as mist. ACGIH 1984-85.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of Identification : Gear Lube

Ingredient name	%	CAS number
Butene, homopolymer (products derived from either/or But-1-ene/But-2-ene)	<10	9003-29-6
Long-chain alkyl amine	0.1-1	-
Long-chain alkenyl amine	0.1-1	-
Molybdenum di(2-ethylhexyl)phosphorodithioate	<0.5	72030-25-2
Antimony, Tris(dipentylcarbamodithioato)	1-2.5	15890-25-2

Any concentration shown as a range is to protect confidentiality or is due to batch 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** : 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

Potential acute health effects

- Eye** : Causes serious eye irritation.
- Inhalation** : No known significant effects of critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye** : Adverse symptoms may include the following: pain or irritation, watering, redness.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following: irritation, redness.
- Ingestion** : No known significant effects of critical hazards.

Indication of immediate medical 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

Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Hazardous thermal**decomposition products**

: Decomposition products may include the following materials: carbon dioxide, carbon monoxide.

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 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 nonemergency 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, 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.

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**

- : Under conditions which may generate mists, the following exposure limits are recommended: ACGIH TLV TWA: 5 mg/m³ ; STEL: 10 mg/m³.

Appropriate engineering controls

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

Environmental exposure controls

- : 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: Splash goggles. 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 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	: Use a properly fitted, air-purifying or supplied-air 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

Physical state	: Liquid.
Color	: Blue.
Odor	: Aromatic hydrocarbon.
pH	: Not available.
Boiling point	: Not available.
Flash point	: Open cup: 236°C (456.8°F) [Cleveland.] Closed cup: >200°C (>382°F)
Evaporation rate	: <1 (n-butyl acetate = 1)
Lower and upper explosive (flammable) limits	: Lower - Not available. Upper - Not available.
Auto-ignition temperature	: >260°C (>500°F)
Vapor pressure	: <0.13 kPa (<0.1 mm Hg) [room temperature]
Vapor density	: >1 [Air = 1]
Relative density	: 0.8493
Density lbs/gal	: Estimate 7.25 lbs/gal
Gravity, °API	: Estimate 31
Viscosity	: Kinematic: 0.15 cm ² /s (15 cSt) (100°C) Kinematic: 1.56 cm ² /s (156 cSt) (40°C)

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

Conclusion/Summary

- : Distillates (petroleum), hydrotreated heavy paraffinic: 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, lipid

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granuloma formation and lipid 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.

Product/ingredient name	Result	Species	Dose	Exposure
Resolute Hi-Performace (Mixture)	Acute Dermal LD50	Rabbit	2125.37 mg/kg estimated	-
	Acute Inhalation LC50	Rat	8298.22 mg/l estimated	-
	Acute Oral LD50	Rat	2126.08 mg/kg estimated	-
	Acute Other LD50	Rat	23170.73 mg/kg estimated	-
Antimony, Tris(dipentylcarbamodithioato) (15890-25-2)	Acute Dermal LD50	Rabbit	> 16000 mg/kg	-
	Acute Oral LD50	Rat	> 16000 mg/kg	-
Distillates (petroleum), hydrotreated light	ORAL (LD50): Acute	Rat	>5000 mg/kg	-
	DERMAL (LD50): Acute	Rabbit	>2000 mg/kg	-
Highly-refined petroleum lubricant oils	ORAL (LD50): Acute	Rat	>5000 mg/kg	-
	DERMAL (LD50): Acute	Rabbit	>2000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation

Sensitization

- Skin** : No additional information.
- Eyes** : No additional information.
- Respiratory** : No additional information.

Mutagenicity

- Conclusion/Summary** : No additional information.

Carcinogenicity

- Conclusion/Summary** : No additional information.

Reproductive toxicity

- Conclusion/Summary** : No additional information.

Teratogenicity

- Conclusion/Summary** : No additional information.

**Specific target organ toxicity
(single exposure)**

- Specific target organ toxicity** : Not available.

**Specific target organ toxicity
(repeated exposure)**

- Specific target organ toxicity** : Not available.

Aspiration hazard

- Aspiration hazard** :

Product/ingredient name	Result
Butene, homopolymer (products derived from either/or But-1-ene/But-2-ene)	ASPIRATION HAZARD – Category 1

Information on the likely

- routes of exposure** : Dermal contact, Eye contact, Inhalation, Ingestion

Potential acute health effects

- Eye** : Adverse symptoms may include the following: pain or irritation watering redness.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following: irritation redness.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye** : 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.
- Potential chronic health effects**
- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- 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

Product/ingredient name	Result	Species	Exposure
Distillates (petroleum), hydrotreated light	Acute LC50 2600 µg/l Fresh water	Fish – Oncorhynchus mykiss	4 days
	Acute LC50 2900 µg/l Fresh water	Fish – Oncorhynchus mykiss	96 hours

Persistence and degradability

Conclusion/Summary : There is no data available.

Bioaccumulative potential

Conclusion/Summary

Product/ingredient name	LogP _{ow}	BCF	Potential
Butene, homopolymer (products derived from either/or But-1-ene/But- 2-ene)	7.6 to 7.8	314 to 1882	high

Mobility in soil

Soil/water partition

Coefficient (K_{oc}) : 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. 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	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	Not applicable.	Not applicable.	Not applicable.
Transport hazard class(es)	Not applicable.	Not applicable.	Not applicable.
Packaging group	Not applicable.	Not applicable.	Not applicable.
Environmental hazards	No.	No.	No.
Additional 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 to Annex II of MARPOL 73/78 and IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.
Clean Water Act (CWA) 311: Propylene oxide
 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

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Ethylene oxide	0 – 0.1	Yes.	1000	-	10	-
Propylene oxide	0 – 0.1	Yes.	10000	1444.3	100	14.4

SARA 304 RQ : 45454545.5 lbs / 20636363.6 kg [6410572.1 gal / 24266655.3 L]

SARA 311/312

Classification : Immediate (acute) health hazard.

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Butene, homopolymer (products derived from either/or But-1-ene/But-2-ene)	<10	No.	No.	No.	Yes.	No.
Long-chain alkyl amine	0.1 - 1	No.	No.	No.	Yes.	No.
Long-chain alkenyl amine	0.1 - 1	No.	No.	No.	Yes.	No.

SARA 313 : This product (does) contain toxic chemicals subject to the reporting requirements of SARA Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: Distillates, hydrotreated light paraffinic.
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: Distillates, hydrotreated heavy paraffinic; Distillates, hydrotreated light paraffinic.
- Pennsylvania** : None of the components are listed.
- California Prop. 65** : **WARNING:** This product contains less than 0.1% of a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level

Paraffin oils	Yes.	No.	No.	No.
Ethylene oxide	Yes.	Yes.	Yes.	Yes.
1,4-Dioxane	Yes.	No.	Yes.	No.
Propylene oxide	Yes.	No.	No.	No.
Ethyl acrylate	Yes.	No.	No.	No.

International regulations

International lists

- : **Australia inventory (AICS):** Not determined.
- : **China inventory (IECSC):** Not determined.
- : **Japan inventory:** Not determined.
- : **Korea inventory:** Not determined.
- : **Malaysia Inventory (EHS Register):** Not determined.
- : **New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- : **Philippines inventory (PICCS):** Not determined.
- : **Taiwan inventory (CSNN):** Not determined.

Canada inventory

: All components are listed or exempted.

EU inventory

: All components are listed or exempted.

WHMIS (Canada)

: All components are listed or exempted.

Section 16. Other information

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

Flammability



Health

Instability/Reactivity

Special

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.

History

Date of revision / Supersedes : 09/24/2013 : 04/03/2008

Key to abbreviations

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labeling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogP_{ow} = logarithm of the octanol/water partition coefficient
- MARPOL 73/78 = 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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