STIHL BEARING AND GEAR GREASE

Packaged for STIHL Incorporated, 536 Viking Drive, Virginia Beach, VA 23452

Safety Data Sheet

Conforms to HCS 2012 (29 CFR 1910.1200)

Section 1. Identification

Product identifier

Product Name:	**STIHL BEARING AND GEAR GREASE**
Other names:	Lithium Base Bearing and Gear Grease / Slipkote LC EP-2 with Tac (Product Code 10529)
Part/Product Number(s):	**0781-120-1114**
Material Use:	Lubricant; grease
Uses advised against:	No additional information.
Manufacturer:	Specialty Lubricant Corporation 8300 Corporate Park Drive Macedonia, OH 44056 1-800-238-5823
Distributor:	Omni Specialty Packaging, LLC 10399 Hwy 1 South Shreveport, LA 71115 1-318-524-1100
Issuing date:	August 22, 2016
Revision date:	April 26, 2018
Revision number:	001
Company contact:	OMNI EHS Department: E-Mail: sds@osp.cc; Contact phone: 318-524-1100 (Monday-Friday, 8:00 AM – 4:00 PM, CST)
In case of emergency:	CHEMTREC: Within USA and Canada: 1 (800) 424-9300 (24/7) CHEMTREC: Outside USA and Canada: +1 703-527-3887 (24/7)

Section 2. Hazards Identification

OSHA/HCS Status:	This product is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the Substance or Mixture:	Serious Eye Damage/Eye Irritation – Category 2A

GHS Label Elements

Hazard pictograms:

Signal word:	Warning
Hazard statement:	Causes serious eye irritation.

Precautionary statements

General:	Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention:	Wear eye or face protection. Wash hands thoroughly after handling.

Response: IF IN EYE: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage: Not applicable

Disposal: Not applicable

Hazards not otherwise classified (HNOC): None known.

Section 3. Composition/Information on Ingredients

Petroleum mineral oil lubricant base stock with proprietary performance additives mixture.

Substance/Mixture: Mixture

Components Name	CAS number	Weight %*
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	30 – 65
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	1-5

This product does not contain known hazardous materials at the ≥ 1% level or known carcinogens at the ≥ 0.1% level as defined by 29 CFR 1910.1200.

* The exact percentage of composition has been withheld as a trade secret or is a 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

General Advice: No specific first aid measures are required. Get medical attention if irritation develops and persists.

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

Most Important Symptoms and Effects: Personnel with pre-existing skin disorders should avoid contact with this product. Under normal use conditions, no adverse effects to health are known.

Eye contact: Causes serious eye irritation.

Skin contact: No known significant effects or critical hazards.

Inhalation: Not expected to be harmful if inhaled. No known significant effects or critical hazards.

Ingestion: Irritation to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:
Pain or Irritation
Watering
Redness

Skin contact: No specific data.

Inhalation: No specific data.

Ingestion: No specific data.

Note to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

See toxicological information in (Section 11).

Section 5. Fire-Fighting Measures

Extinguishing Media

Suitable Media: In case of fire, use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Media: None known.

Specific Hazards Arising from the Chemical: No specific fire or explosion hazard.

Hazardous Combustion Products: Combustion products may include the following: Carbon dioxide (CO2) Carbon monoxide (CO), and Metal oxide/oxides.

Protection of 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. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

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. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. See also the information in "For non-

emergency personnel".

Environmental precautions: Avoid dispersal of spilled material onto soil or into waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). See Section 12 for ecological information.

Methods and materials for containment and cleaning up

Small Spills: Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large Spills: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, 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: Safety glasses with shied shields. Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Keep out of reach of children.

Advice on general occupational hygiene: Do not get in eyes, on skin or on clothing. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. 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, strong oxidizing agents (see Section 10) and food and drink. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination. Avoid contaminating soil or releases into sewage or drainage systems and bodies of water.

Section 8. Exposure Controls/Personal Protection

Control parameters

Occupational Exposure Limits

Chemical name	ACGIH		OSHA		NIOSH	
	TLV	STEL	PEL	STEL	TWA	Ceiling
Distillates (petroleum), solvent-dewaxed heavy paraffinic	5 mg/m3 (mist)	–	5 mg/m3 (mist)	–	5 mg/m3 (mist)	10 mg/m3 (mist)

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants. Emergency shower and eyewash station.

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, fume scrubbers, 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.

Eye/Face 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 contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin and Body Protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: No protective equipment is needed under normal use conditions. For non-routine tasks, personal protection equipment for the body should be selected based on the task being performed and the risks involved.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

Respiratory protection: 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	**(Typical or Target)**
Physical State:	Solid (Grease)
Color:	Blue
Odor:	Mild. Petroleum like
Odor threshold:	Not available
pH:	Not applicable
Boiling Point:	Not available
Flash Point (Closed cup):	Not available
Evaporation rate (Butyl acetate = 1):	Not available
Flammability (solid, gas):	Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Flammable) Limit in Air	Not available
Vapor pressure:	Not available
Vapor density (Air = 1):	Not available
Relative density:	0.9 g/cm^3 at 15°C
Solubility:	In soluble in water
Partition coefficient (n-Octanol/water):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity – Kinematic (cSt (mm2/s)@ 40°C):	Not available
Viscosity – Kinematic (cSt (mm2/s) @ 100°C):	Not available
VOC %:	0 %

Section 10. Stability and Reactivity

Reactivity:	Not reactive under normal storage conditions
Chemical stability:	Stable under normal storage conditions
Possibility of hazardous reactions:	None under normal processing.
Hazardous polymerization:	Hazardous polymerization does 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

Basis for Assessment: Information given is based on product data, a knowledge of the components and the toxicity of similar products.

Likely Routs of Exposure: Exposure may occur via skin absorption, skin or eye contact, inhalation, ingestion.

Substance/Mixture

Acute Toxicity	Oral LD50	Dermal LD50	Inhalation LC50
Distillates (petroleum), solvent-dewaxed heavy paraffinic	>5000 mg/Kg (rat)	>5000 mg/Kg (rabbit)	-

Aspiration hazard: Not expected to be an aspiration hazard. [Distillates (petroleum), solvent-dewaxed heavy paraffinic – Aspiration Hazard – Category 1]

Skin Corrosion/Irritation: No known significant effects or critical hazards.

Serious Eye Damage/Irritation: No known significant effects or critical hazards.

Skin Sensitization: No known significant effects or critical hazards.

Respiratory Sensitization: No known significant effects or critical hazards.

Specific Target Organ Toxicity (Single Exposure) - STOT-SE: No known significant effects or critical hazards.

Specific Target Organ Toxicity (Repeated Exposure) – STOT-RE: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Germ Cell Mutagenicity: No known significant effects or critical hazards.

Reproductive Toxicity: No known significant effects or critical hazards.

Potential Acute Health Effects

Eye contact: Causes serious eye irritation.

Inhalation: No known significant effects or critical hazards.

Skin contact: No known significant effects or critical hazards.

Ingestion: Irritating to mouth, throat and stomach.

Symptoms Related to the Physical, Chemical and Toxicological Characteristic

Eye contact: Adverse symptoms may include the following: pain or irritation, watering, redness.

Inhalation: No specific data.

Skin contact: No specific data.

Ingestion: No specific data

Information on Toxicity Effects of Compounds

Lubricant Base Mineral Oil (Petroleum)

Mineral oils are known to cause cancer because of carcinogenic components (e.g. Benzene). The lubricant base mineral oils in this product have been highly refined by a variety of processes including severe solvent extraction, severe hydro cracking or severe hydro treating to reduce aromatics and improve performance characteristics. The oils in this product meet the IP-346 criteria of less than 3 percent PHA's and are not considered to be a carcinogen by the International Agency for Research on Cancer.

None of the oils in this product require a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IRAC) as: carcinogenic to humans (Group 1), probably

carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

Section 12. Ecological Information

The information is based on data available for the material, the components of the material, and similar materials.

Ecotoxicity: No testing has been performed by the manufacturer. Ecotoxicity hazard is based on an evaluation of data for the components or a similar material. Not expected to be harmful to aquatic organisms.

Mobility: Base oil component – Low solubility and floats on water. It is expected to migrate from water to land. Expected to partition to sediment and wastewater solids.

Soil/water partition coefficient (K_{OC}): Not available.

Persistence and degradation
Biodegradation: The material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

Bioaccumulative potential
Bioaccumulation: This product is not expected to bioaccumulate through food chain in the environment.

Other adverse effects: No known significant effects or critical hazards.

Other ecological information: Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

Section 13. Disposal Considerations

Disposal recommendations based on material supplied.

Waste treatment methods: This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). Consult the appropriate state, regional, or local regulations for additional requirements. The generation of waste should be avoided or minimized wherever possible.

Product waste: Significant quantities of waste product residues should not be disposed of via the sanitary sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Incineration or landfill should only be considered when recycling is not feasible. Oil collection services are available for used oil recycling.

Contaminated packaging: Empty containers or liners may retain some product residues and could pose a potential fire and explosion hazard. Do not cut, puncture, or weld containers.

Other information: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport Information

General information: Petroleum lubricating oil - Not regulated.

	DOT Classification	IMDG	IATA
STIHL Bearing and Gear Grease	Not Regulated	Not Regulated	Not Regulated

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.

Section 15. Regulatory Information

United States Regulations

TSCA 8(a) PAIR: Phosphorodithioic acid,O,O-di-C1-C14-alkyl esters, zinc salts; naphthalene
TSCA 8(a) CDR Exempt/Partial Exempt: Not determined.
United States Inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304: No products were found.

SARA 311/312:

Immediate (Acute) Health Effects:	Yes
Delayed (Chronic) Health Effects:	No
Fire Hazard:	No
Sudden Release of Pressure Hazard:	No
Reactivity Hazard:	No

SARA 313:

The following components of this material are found on the EPCRA 313 list:
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (1-5%)

Supplier notification: This product does not contain any hazardous ingredients at or above regulated thresholds.

CWA (Clean Water Act):

CWA 307: Not determined.
CWA 311: Naphthalene.

CERCLA: This material, as supplied, does not contain any substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

State Regulations

Massachusetts: None of the components are at or above regulated thresholds.
New Jersey: Zinc compounds.
Pennsylvania: Zinc compounds.
California Proposition 65: WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

INGREDIENT NAME	CANCER	REPRODUCTIVE	NO SIGNIFICANT RISK LEVEL	MAXIMUM ACCEPTABLE DOSAGE LEVEL
Naphthalene	Yes.	No.	Yes.	No.

Canada

WHMIS Hazard Class: Not classified. This Product Is Not Controlled Under WHMIS (Canada)

International Chemical Inventories:
All components comply with the following chemical inventory requirements: DSL (Canada)

Section 16. Other Information

NFPA Rating:	**Health Hazard – 1***	**Flammability – 1**	**Instability/Reactivity – 0**
HMIS Rating:	**Health Hazard – 1**	**Flammability – 1**	**Physical Hazards – 0**

(NFPA & HMIS Hazard Rating Key: 0 - Minimum Hazard; 1 - Slight Hazard; 2 - Moderate Hazard; 3 - High Hazard; 4 - Extreme Hazard; * - Chronic Hazard Indicator, & PPE - Personal Protective Equipment Index A to L. These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS or Hazardous Material Identification System).

Key to abbreviations:

OSHA = Occupational Safety and Health Administration
ACGIH= American Conference of Industrial Hygienists
ATE = Acute Toxicity Estimate
LogPow = logarithm of the octanol/water partition coefficient
OEL = Occupational Exposure Limit
SDS = Safety Data Sheet

BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service Registry Number
cSt = Centistroke (mm2/s)
GHS = Global Harmonized System of Classification and Labeling Of Chemicals.
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
STEL = Short term exposure Limit
UN = United Nations
UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transportation of Dangerous Goods

Prepared By: **OMNI Specialty Packaging EH&S Department**

Revision Date: **April 26, 2018**

Status: **Final**

Revision Note: **Revision 001 – Review and update.**

Consumer Product Improvement Act of 2008, General Conformity Certification

For Consumer Product Packages: This product has been evaluated and is certified to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission. Where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No testing is required to certify compliance with the provisions. The date of the manufacturing is stamped on the product container.

Disclaimer

All reasonably practicable steps have been taken to ensure the information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This information is furnished upon condition that the person receiving it shall make their own determination of the suitability of the material for their particular purpose.

End of Safety Data Sheet