

Advanced Lubrication Technology, Inc.

MATERIAL SAFETY DATA SHEET

Date: 12-June-2014

LubriSilk High Performance Greases

SECTION	1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
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1.1	Product identifier	
	Trade name	LubriSilk High Performance Grease, Grades #3, #2, #1, #0 & #00
	Company productcode(s)	500110 - 500115, 500302 & 500303
	REACH Registration number	01-2119486683-25-0000

1.2	Relevant identified uses of the substance or mixture and uses advised against	
	The uses of the chemical	LUBRICATING GREASE
	Classification of economic activities (NACE)	50.Maintenance/repair of Machinery, Motors, Firearms etc.
	Use categories (UC62)	35 Lubricants and additives
	The chemical can be used by the general public	Yes
	The chemical is used by the general public only	No

1.3	Details of the supplier of the safety data sheet	
	Manufacturer, importer, other undertaking	
	Manufacturer	
	Advanced Lubrication Technology Inc. 3000 SW 42nd Ave. Palm City, Florida USA 888-258-9190 tf@altboron.com	

1.4	Emergency telephone number	
	USA 411 Infotrac: 1-800-535-5053	Europe 112 Infotrac international 1-352-323-3500

SECTION	2: HAZARDS IDENTIFICATION
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2.1	Classification of the substance or mixture	
	1272/2008 (CLP)	In accordance with current regulations (1272/2008 CLP), this substance has not been classified as dangerous. Classification according to 67/548/EEC – 1999/45/ED: no classification.
	67/548/EEC-1999/45/EC	No Classification

2.2	Label elements – THIS PRODUCT DOES MEET THE EU OR GHS CONCENTRATION LEVEL FOR HAZARDOUS COMPONENT CAS # 10043-35-3; REACH NO. 01-2119486683-25-0006	
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NA **PICTOGRAM**
NOT REQUIRED

NA **Signal word:**

NA **Hazard statements:**

Precautionary statements

P201 Obtain special instructions before use

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P202 P281 P308+P313 P405 EUH210	Do not handle until all safety precautions have been read and understood Use of personal protective equipment as required If exposed or concerned: Get medical advice/attention Store locked up Safety data sheet available on request.
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2.3	Other hazards:
	NONE KNOWN

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CAS/EC number and the registration number	Name of the ingredient	Concentration	Classification
10043-35-3/11113-50-1	BORIC ACID	=< 5.4%. Does not meet the hazardous threshold level for this component.	Repr. 1B, H360FD (Repr. Cat. 2; R60-61)

SECTION 4: FIRST AID MEASURES

4.1 Description of first air measures

Inhalation	Remove the victim from further exposure. Those providing assistance must avoid exposure to themselves or others; use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
Skin contact	Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency.
Eye contact	Flush thoroughly with water. If irritation occurs, seek medical assistance.
Ingestion	First aid is normally not required. Seek medical attention if discomfort occurs.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation	Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
Skin contact	Practically non toxic if absorbed thru the skin. Substance may cause slight irritation
Eye contact	Non-irritating to the eyes.
Ingestion	Practically non-toxic if ingested. Harmful or fatal if swallowed. Pulmonary aspiration hazard. While ingesting or vomiting, may enter lungs and produce damage.
Other	May damage fertility or an unborn child.

4.3	Indication of any immediate medical attention and special treatment needed	Injection of synthetic oils under skin requires immediate medical attention.
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SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Use water fog, foam, dry chemical or carbon dioxide to extinguish flames. Do not use straight streams of water.

5.2 Special hazards arising from the substance or mixture

NO SPECIAL HAZARDS

5.3 Advice for firefighters

Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with spilled material. Use appropriate personal protection. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

6.2 Environmental precautions

Large spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas. If the product pollutes lakes, watercourses or drainage systems, inform the local authorities.

6.3 Methods and material for containment and cleaning up

Land spill Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

Water spill Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

6.4 Reference to other sections

Personal protection equipment	Section 8.2
Disposal	Section 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, ignition sources and oxidizing agents. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or earthing procedures.

Avoid contact with used product. Prevent small spills and leakage to avoid slip hazard. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

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7.2	Conditions for safe storage, including any incompatibilities
	Do not store in open or unlabelled containers. The container choice, for example the storage vessel, may affect static accumulation and dissipation. Keep away from heat, ignition sources and oxidizing agents.

7.3	Specific end use(s)
	LUBRICANT

SECTION	8: EXPOSURE CONTROLS/PERSONAL PROTECTION
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8.1	Control parameters										
	<table style="width: 100%;"> <tr> <td style="width: 50%;">National occupational exposure limit values</td> <td>None established</td> </tr> <tr> <td>Other limit values</td> <td></td> </tr> <tr> <td>Oil mist</td> <td>5 mg/m² (OSHA PEL TWA) 10mg/m² (ACGIH TLV STEL)</td> </tr> <tr> <td>DNEL</td> <td>Chemical safety assessment has not been performed.</td> </tr> <tr> <td>PNEC</td> <td>Chemical safety assessment has not been performed.</td> </tr> </table>	National occupational exposure limit values	None established	Other limit values		Oil mist	5 mg/m ² (OSHA PEL TWA) 10mg/m ² (ACGIH TLV STEL)	DNEL	Chemical safety assessment has not been performed.	PNEC	Chemical safety assessment has not been performed.
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8.2	Exposure controls														
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SECTION	9: PHYSICAL AND CHEMICAL PROPERTIES
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9.1	Information on basic physical and chemical properties				
	<table style="width: 100%;"> <tr> <td style="width: 50%;">Appearance</td> <td>BUTTERY SEMI-SOLID</td> </tr> <tr> <td>Odour</td> <td>Mild</td> </tr> </table>	Appearance	BUTTERY SEMI-SOLID	Odour	Mild
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Odour	Mild				

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Odour threshold	Not determined
PH	6.5-7.5
Melting point/freezing point	Not determined; liquid at ambient temperatures
Initial boiling point and boiling range	375 Celcius / 705 Fahrenheit
Flash point	246 Celcius / 475 Fahrenheit (C.O.C.)
Evaporation rate	Not determined
Flammability (solid, gas)	Not flammable
Upper/lower flammability or explosive limits	LEL 0.9%, UEL 7.0%
Vapour pressure	N/A
Vapour density	Not determined
Relative density	.929 G/Cm3
Solubility(ies)	Water solubility negligible
Partion coefficient: n-octanol/water	Not determined
Auto-ignition temperature	Not determined
Decomposition temperature	Not determined
Viscosity	Grease Grade #3 to #00
Explosive properties	Not explosive
Oxidising properties	Not oxidising

9.2 Other information

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SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

The material is not reactive under normal conditions of use and storage

10.2 Chemical stability

The material is stable under normal conditions of use and storage

10.3 Possibility of hazardous reactions

No hazardous reactions are expected under normal conditions of use and storage

10.4 Conditions to avoid

Excessive heat

10.5 Incompatible materials

Ignition sources, strong oxidizers

10.6 Hazardous decomposition products

Hazardous decomposition products have not been reported

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

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Acute toxicity	The material itself has not been tested for acute toxicity Structurally similar materials have been found to be minimally toxic: SODIUM CHLORIDE LD50 orally, >2600 mg/kg RAT LC50 (dermally, >2000 mg/kg RABBIT
Skin corrosion/irritation	While the material is not classified as corrosive or irritating to skin, skin contact may cause some irritation.
Serious eye damage/irritation	While the material is not classified as damaging or irritating to eyes, splashes or mist may cause mild short-term discomfort to eyes .
Respiratory or skin sensitisation	The material is not classified as a respiratory or skin sensitiser .
Germ cell mutagenicity	The material is not classified as a mutagen .
Carcinogenicity	The material is not classified as a carcinogen .
Reproductive toxicity	9.6 mg Boron/kg in rats. (Boron is x .1748 of Boric Acid content)
STOT-single exposure	The material is not classified as toxic to specific target organs .
STOT-repeated exposure	The material is not classified as toxic to specific target organs .
Aspiration Hazard	While the material is not classified as causing aspiration toxicity, aspiration into the lungs during swallowing or vomiting may cause severe pulmonary injury.
Other information	Injection of synthetic oils under skin requires immediate medical attention.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

The material has not been classified as hazardous to the environment . No ecotoxicological data is available for the material itself. The material is not expected to be harmful to aquatic organisms. Prevent entry in soil, waterways or sewers.

12.2 Persistence and degradability

Unknown

12.3 Bioaccumulative potential

Unknown

12.4 Mobility in soil

Water solubility of the material is negligible.

12.5 Results of PBT and vPvB assessment

Chemical safety assessment has not been performed

12.6 Other adverse effects

None reported

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

This material is considered as hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies. European waste code: 13 02 06 (a national waste code should be given here if exists).

Disposal according to current national and local official regulations. The material is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to

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prevent formation of undesirable combustion products. Protect the environment. Dispose of used oil at designated sites. Minimize skin contact. Do not mix used oils with solvents, brake fluids or coolants.

Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION	14: TRANSPORT INFORMATION
14.1	UN number Not classified for transportation
14.2	UN proper shipping name Not classified for transportation
14.3	Transport hazard class(es) Not classified for transportation
14.4	Packing group Not classified for transportation
14.5	Environmental hazards The material has not been classified as hazardous to the environment. Prevent entry to soil, waterways and sewers.
14.6	Special precautions for user Keep away from heat, ignition sources and strongly oxidizing materials
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable
SECTION	15: REGULATORY INFORMATION
15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture No specific regulations
15.2	Chemical safety assessment Chemical safety assessment has not been performed
SECTION	16: OTHER INFORMATION
Changes to previous version	25 May 2011: Content checked and moved to new template; hazard statements amended see below
Glossary of abbreviations	ACGIH: American Conference of Governmental Industrial Hygienists C.O.C: Cleveland open cup method LC50: Lethal concentration 50 % (median lethal concentration), concentration of the substance which kills 50 % of exposed organisms LD50: Lethal dose 50 % (median lethal dose), dose

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of the substance which kills 50 % of exposed organisms

LEL: lower explosive limit (% in air)

OSHA: Occupational Safety and Health Administration (United States)

PEL: permissible exposure limit

STEL: short-term exposure limit

TLV: threshold limit value

TWA: time-weighted average

UEL: upper explosive limit (% in air)

References

List of relevant R phrases

In accordance with GHS/EU specifications the hazard statements and labeling requirements have been modified as component CAS 10043-35-3 is below the threshold for designation of the product as a hazardous product.

R60 – May impair fertility

R61 – May cause harm to the unborn child

OTHER INFORMATION

THIS INFORMATION IS BASED ON PRESENT KNOWLEDGE AND SHOULD BE USED ONLY AS A GUIDE. HOWEVER , THIS SHALL NOT CONSTITUTE A GUARANTEE FOR ANY SPECIFIC PRODUCT FEATURES. ADVANCED LUBRICATION TECHNOLOGY INC. IS NOT HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCTS. MSDS HAS BEEN PREPARED IN ACCORDANCE WITH EU DIRECTIVE 67/548/EEC, 91/155/EEC AND OTHER EU COMMUNITY LEGISLATIONS IN FORCE.

End