



Material Safety Data Sheet

SFL-0/00/000/1/2

1. Product and company identification

Product name	: SFL-0/00/000/1/2
Material uses	: Synthetic lubricating grease
Code	: NSF# 119618/113092/136256/140601/043677/113093
Supplier/Manufacturer	: LUBRIPLATE® Lubricants Co. 129 Lockwood St. Newark, NJ 07105 Telephone no.: 1-973-589-9150
Validation date	: 7/18/2011.
Prepared by	: Atrion Regulatory Services, Inc.
In case of emergency	: CHEM-TEL 1-800-255-3924 (24 hour)

2. Hazards identification

Physical state	: Solid. [grease]
Color	: White.
Odor	: Mineral oil.
Emergency overview	
Hazard statements	: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
Precautions	: No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.
OSHA/HCS status	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Routes of entry	: Dermal contact. Eye contact. Inhalation.
Potential acute health effects	
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin	: No known significant effects or critical hazards.
Eyes	: No known significant effects or critical hazards.
Potential chronic health effects	
Chronic effects	: 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.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Over-exposure signs/symptoms	
Inhalation	: No specific data.
Ingestion	: No specific data.
Skin	: No specific data.
Eyes	: No specific data.

2. Hazards identification

Medical conditions aggravated by over-exposure : None known.

3. Composition/information on ingredients

United States

Name	CAS number	%
1-Decene, homopolymer, hydrogenated	68037-01-4	60-100
White mineral oil (petroleum)	8042-47-5	10-30
Butene, polymers	9003-29-6	10-30
Zinc oxide	1314-13-2	5-10
Stearic Acid	57-11-4	1-5
Fatty acids, C16-18	67701-03-5	1-5

Canada

Name	CAS number	%
1-Decene, homopolymer, hydrogenated	68037-01-4	60-100
White mineral oil (petroleum)	8042-47-5	10-30
Zinc oxide	1314-13-2	5-10
Stearic Acid	57-11-4	1-5
Fatty acids, C16-18	67701-03-5	1-5

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.

4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product : No specific fire or explosion hazard.

Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : 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.

5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides
sulfur oxides
- 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.

6. Accidental release measures

- Personal precautions** : 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 (see Section 8).
- 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 for 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.

7. Handling and storage

- Handling** : 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.
- 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.

8. Exposure controls/personal protection

United States

1-Decene, homopolymer, hydrogenated

ACGIH TLV (United States).

TWA: 5 mg/m³

White mineral oil (petroleum)

ACGIH TLV (United States, 2/2010).

TWA: 5 mg/m³ 8 hour(s). Form: Inhalable fraction. See Appendix C, paragraph A. Inhalable Particulate Mass TLVs (IPM-TLVs) for those materials that are hazardous when deposited anywhere in the respiratory tract.

ACGIH TLV (United States).

TWA: 5 mg/m³ Form: Mist

STEL: 10 mg/m³ Form: Mist

NIOSH REL (United States, 6/2009).

TWA: 5 mg/m³ 10 hour(s). Form: Mist

STEL: 10 mg/m³ 15 minute(s). Form: Mist

OSHA PEL (United States, 6/2010).

8. Exposure controls/personal protection

Zinc oxide	<p>TWA: 5 mg/m³ 8 hour(s).</p> <p>NIOSH REL (United States, 6/2009).</p> <p>CEIL: 15 mg/m³ Form: Dust</p> <p>TWA: 5 mg/m³ 10 hour(s). Form: Dust and fumes</p> <p>STEL: 10 mg/m³ 15 minute(s). Form: Fume</p> <p>OSHA PEL 1989 (United States, 3/1989).</p> <p>TWA: 5 mg/m³ 8 hour(s). Form: Fume</p> <p>STEL: 10 mg/m³ 15 minute(s). Form: Fume</p> <p>TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction</p> <p>TWA: 10 mg/m³ 8 hour(s). Form: Total dust</p> <p>OSHA PEL (United States, 6/2010).</p> <p>TWA: 5 mg/m³ 8 hour(s). Form: Fume</p> <p>TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction</p> <p>TWA: 15 mg/m³ 8 hour(s). Form: Total dust</p> <p>ACGIH TLV (United States, 2/2010).</p> <p>TWA: 2 mg/m³ 8 hour(s). Form: Respirable fraction; see Appendix C</p> <p>STEL: 10 mg/m³ 15 minute(s). Form: Respirable fraction; see Appendix C</p>
Stearic Acid	<p>ACGIH TLV (United States, 2/2010).</p> <p>TWA: 10 mg/m³ 8 hour(s). Form: Total particulate mass</p>

Canada

<u>Occupational exposure limits</u>		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	Notations
Zinc oxide	US ACGIH 2/2010	-	2	-	-	10	-	-	-	-	[a]
	AB 4/2009	-	2	-	-	10	-	-	-	-	[b]
	BC 9/2010	-	2	-	-	10	-	-	-	-	[b]
	ON 7/2010	-	2	-	-	10	-	-	-	-	[a]
	QC 6/2008	-	5	-	-	10	-	-	-	-	[c]
Stearic Acid	US ACGIH 2/2010	-	10	-	-	-	-	-	-	-	[d]
	ON 7/2010	-	10	-	-	-	-	-	-	-	[d]
1-Decene, homopolymer, hydrogenated White mineral oil (petroleum)	US ACGIH	-	5	-	-	-	-	-	-	-	
	US ACGIH 2/2010	-	5	-	-	-	-	-	-	-	[e]
	US ACGIH	-	5	-	-	10	-	-	-	-	[f]
	BC 9/2010	-	1	-	-	-	-	-	-	-	
	ON 7/2010	-	5	-	-	10	-	-	-	-	[g]
	QC 6/2008	-	5	-	-	10	-	-	-	-	[g]

Form: [a]Respirable fraction; see Appendix C [b]Respirable [c]fume [d]Total particulate mass [e]Inhalable fraction. See Appendix C, paragraph A. Inhalable Particulate Mass TLVs (IPM–TLVs) for those materials that are hazardous when deposited anywhere in the respiratory tract. [f]Mist [g]mist

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- 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.

Personal protection

8. Exposure controls/personal protection

- Respiratory** : Use a properly fitted, air-purifying or air-fed 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.
- Hands** : 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.
- Eyes** : 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 or dusts.
- Skin** : 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.
- 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.

9. Physical and chemical properties

- Physical state** : Solid. [grease]
- Flash point** : Open cup: 204°C (399.2°F)
- Auto-ignition temperature** : Not available.
- Flammable limits** : Lower: 0.9%
Upper: 7%
- Color** : White.
- Odor** : Mineral oil.
- pH** : Not available.
- Boiling/condensation point** : >288°C (>550.4°F)
- Melting/freezing point** : Not available.
- Relative density** : 0.9 to 0.93
- Density** : Not available.
- Vapor pressure** : <0.0013 kPa (<0.01 mm Hg)
- Vapor density** : >5 [Air = 1]
- Odor threshold** : Not available.
- Evaporation rate** : <0.01 (butyl acetate = 1)
- Viscosity** : Not available.
- Solubility** : Not available.
- LogK_{ow}** : Not available.

10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : Keep away from heat, sparks and flame. Keep away from sources of ignition.
- Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

10. Stability and reactivity

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Stearic Acid	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	4600 mg/kg	-
1-Decene, homopolymer, hydrogenated	LC50 Inhalation Vapor	Rat	>2500 mg/m3	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
White mineral oil (petroleum)	LD50 Oral	Rat	>5000 mg/kg	-

Chronic toxicity

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Zinc oxide	Eyes - Mild irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-
Stearic Acid	Skin - Mild irritant	Human	-	-	-
	Skin - Moderate irritant	Rabbit	-	-	-

Sensitizer

Not available.

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
White mineral oil (petroleum)	A4	-	-	-	-	-
Zinc oxide	A4	-	-	-	-	-
Stearic Acid	A4	-	-	-	-	-

Mutagenicity

Not available.

Teratogenicity

Not available.

Reproductive toxicity

Not available.

12. Ecological information

Ecotoxicity : This material is very toxic to aquatic life with long lasting effects.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure

12. Ecological information

Zinc oxide	Acute EC50 0.042 mg/L Fresh water Acute LC50 98 ug/L Fresh water Acute LC50 1.1 to 2.5 ppm Fresh water Chronic NOEC 0.4 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase Daphnia - Daphnia magna - Neonate - <24 hours Fish - Oncorhynchus mykiss Daphnia - Daphnia magna - Neonate	72 hours 48 hours 96 hours 48 hours
1-Decene, homopolymer, hydrogenated	Acute LC50 >750 mg/l	Fish	96 hours

Persistence/degradability

Not available.

13. Disposal considerations

Waste disposal

- : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul 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. 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.





Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN3077	Environmentally hazardous substance, solid, n.o.s. (Zinc oxide). Marine pollutant (Zinc oxide)	9	III	 	<u>Limited quantity</u> Yes. <u>Special provisions</u> 8, 146, 335, B54, IB8, IP3, N20, T1, TP33
TDG Classification	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide). Marine pollutant (Zinc oxide)	9	III	 	<u>Explosive Limit and Limited Quantity Index</u> 5 <u>Special provisions</u> 16

14. Transport information

IMDG Class	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide). Marine pollutant (Zinc oxide)	9	III	 	Emergency schedules (EmS) F-A, S-F
IATA-DGR Class	UN3077	Environmentally hazardous substance, solid, n.o.s. (Zinc oxide)	9	III	 	Passenger and Cargo Aircraft Quantity limitation: 400 kg Packaging instructions: 911 Cargo Aircraft Only Quantity limitation: 400 kg Packaging instructions: 911 Limited Quantities - Passenger Aircraft Quantity limitation: 30 kg Packaging instructions: Y911

PG* : Packing group

15. Regulatory information

United States

- HCS Classification** : Not regulated.
- U.S. Federal regulations** : **TSCA 8(a) IUR**: Partial exemption
United States inventory (TSCA 8b): All components are listed or exempted.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Fatty acids, C16-18; Stearic Acid; Zinc oxide
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Fatty acids, C16-18: Immediate (acute) health hazard; Stearic Acid: Immediate (acute) health hazard; Zinc oxide: Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: Zinc oxide
Clean Water Act (CWA) 311: Benzoic acid
Clean Air Act (CAA) 112 accidental release prevention: No products were found.

- Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)** : Not listed
- Clean Air Act Section 602 Class I Substances** : Not listed
- Clean Air Act Section 602 Class II Substances** : Not listed
- DEA List I Chemicals (Precursor Chemicals)** : Not listed
- DEA List II Chemicals (Essential Chemicals)** : Not listed

SARA 313

15. Regulatory information

	Product name	CAS number	Concentration
Form R - Reporting requirements	Zinc oxide	1314-13-2	5-10
Supplier notification	Zinc oxide	1314-13-2	5-10

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

State regulations

- Massachusetts** : The following components are listed: ZINC OXIDE FUME
New York : None of the components are listed.
New Jersey : The following components are listed: ZINC OXIDE
Pennsylvania : The following components are listed: ZINC OXIDE (ZNO)
California Prop. 65

None of the components are listed.

Canada

- WHMIS (Canada)** : Not controlled under WHMIS (Canada).

Canadian lists

- Canadian NPRI** : The following components are listed: White mineral oil; Zinc
CEPA Toxic substances : None of the components are listed.
Canada inventory : At least one component is not listed in DSL but all such components are listed in NDSL.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

- International lists** :
- Australia inventory (AICS)**: Not determined.
 - China inventory (IECSC)**: Not determined.
 - Japan inventory**: Not determined.
 - Korea inventory**: Not determined.
 - New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
 - Philippines inventory (PICCS)**: Not determined.

- Chemical Weapons Convention List Schedule I Chemicals** : Not listed

- Chemical Weapons Convention List Schedule II Chemicals** : Not listed

- Chemical Weapons Convention List Schedule III Chemicals** : Not listed

16. Other information

- Label requirements** : NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

Hazardous Material Information System (U.S.A.) :

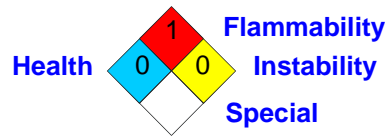
Health	1
Flammability	1
Physical hazards	0

16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

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.

Date of issue : 7/18/2011.
Date of previous issue : No previous validation.
Version : 1

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.