

SKF High viscosity bearing grease with solid lubricants

LGEM 2

SKF LGEM 2 is a high viscosity, mineral oil based grease using a lithium soap. Its content of molybdenum disulphide and graphite provides extra protection for harsh applications subjected to high loads, heavy vibrations and slow rotations.

- High oxidation stability
- Molybdenum disulphide and graphite provide lubrication even if the oil film breaks down

Typical applications

- Rolling element bearings running at low speed and very high loads
- Jaw crushers
- Track laying machines
- Lift mast wheels
- Building machines such as mechanical rams, crane arms and crane hooks



Available pack sizes

Packsize	Designation	Packsize	Designation
420 ml cartridge	LGEM 2/0.4	Electro-mechanical lubricators	
5 kg can	LGEM 2/5	TLSD series 125 ml	TLSD 125/EM2
18 kg pail	LGEM 2/18	TLSD series 125 ml refill	LGEM 2/SD125
180 kg drum	LGEM 2/180	TLSD series 250 ml	TLSD 250/EM2
Gas driven lubricators		TLSD series 250 ml refill	LGEM 2/SD250
LAGD series 60 ml	LAGD 60/EM2		
LAGD series 125 ml	LAGD 125/EM2		



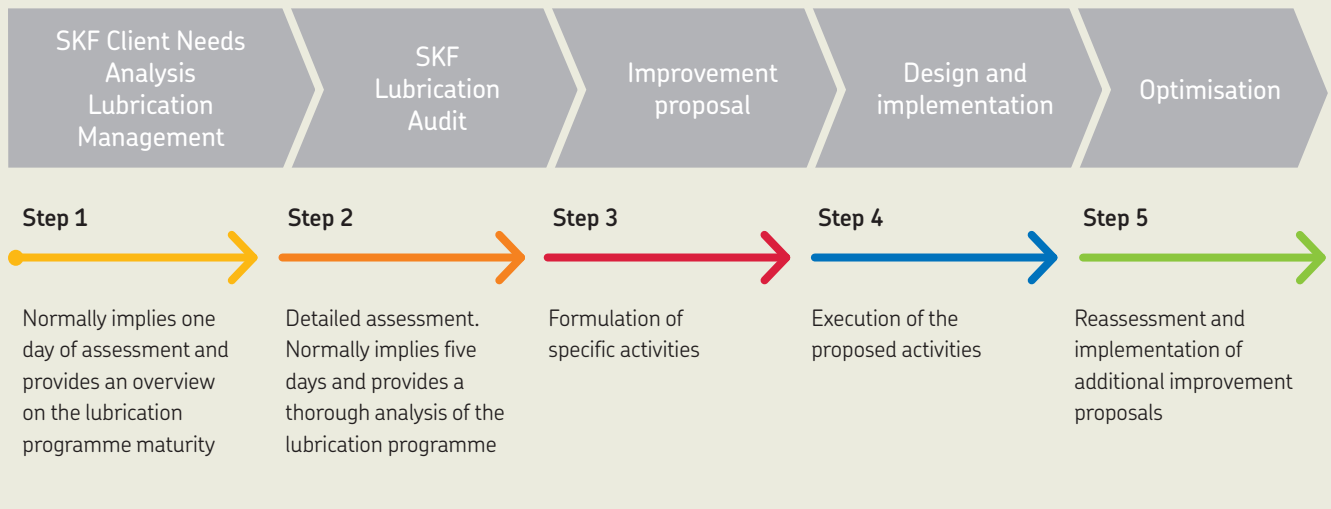
Technical data

Designation	LGEM 2/(pack size)		
DIN 51825 code	KPF2K-20	Corrosion protection	
NLGI consistency class	2	Emcor: – standard ISO 11007	0–0
Thickener	Lithium/calcium	– water washout test	0–0 ¹⁾
Colour	Black	Water resistance	
Base oil type	Mineral	DIN 51 807/1,	
Operating temperature range	–20 to +120 °C	3 hrs at 90 °C	1 max.
Drropping point DIN ISO 2176	(–5 to +250 °F)	Oil separation	
Base oil viscosity		DIN 51 817,	
40 °C, mm ² /s	500	7 days at 40 °C, static, %	1–5
100 °C, mm ² /s	32	Lubrication ability	
Penetration DIN ISO 2137		R2F, running test B at 120 °C	Pass at 100 °C (210 °F)
60 strokes, 10 ⁻¹ mm	265–295	Copper corrosion	
100 000 strokes, 10 ⁻¹ mm	325 max.	DIN 51 811	2 max. at 100 °C (210 °F)
Mechanical stability		EP performance	
Roll stability, 50 hrs at 80 °C, 10 ⁻¹ mm	345 max.	Wear scar DIN 51350/5, 1 400 N, mm	1,2 max.
V2F test	'M'	4–ball test, welding load DIN 51350/4, N	3 400 min.

¹⁾ Typical value

Lubrication management

Just as asset management takes maintenance to a higher level, a lubrication management approach allows lubrication to be seen from a wider point of view. This approach helps to effectively increase machine reliability at a lower overall cost.



skf.com | mapro.skf.com | skf.com/lubrication

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Safety Data Sheet

LGEM 2

Replaces date: 16/03/2020

Revision date: 24/03/2021

Version: 2.2.0

SECTION 1: Identification of the substance/preparation and of the company/undertaking

1.1. Product identifier

Trade name: LGEM 2

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

Recommended uses: Lubricant

1.3. Details of the supplier of the safety data sheet

Supplier

Company: SKF MPT
 Address: Meidoornkade 14
 Zip code: 3992 AE
 City: AE Houten
 Country: NETHERLANDS
 E-mail: sebastien.david@skf.com
 Phone: +31 30 6307200
 Homepage: www.skf.com

1.4. Emergency Telephone Number

Members of the public: 111 (NHS 111 (Scotland: NHS 24))

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP-classification: The product shall not be classified as hazardous according to the classification and labeling rules for substance and mixtures.

Most serious harmful effects: May cause slight irritation to the skin and eyes.

2.2. Label elements

Supplemental information

EUH210 Safety data sheet available on request.

2.3. Other hazards

The product does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	CAS No	EC No	REACH Reg. No.	Concentration	Notes	CLP-classification
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Phosphorodithioc acid, mixed O,O-bis(2-ethylhexyl and iso-butyl and iso-propyl) esters, zinc salts	85940-28-9	288-917-4	01-2119521201-61	< 2.5%		Skin Irrit. 2;H315 Eye Irrit. 2;H319 Aquatic Chronic 2;H411
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Please see section 16 for the full text of H-phrases.

Ingredient comments: The mineral oils in the product contain <3% DMSO extract(IP 346).

SECTION 4: First aid measures

4.1. Description of first aid measures

- Inhalation:** Seek fresh air. Seek medical advice in case of persistent discomfort.
- Ingestion:** Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Seek medical advice in case of persistent discomfort.
- Skin contact:** Remove contaminated clothing. Wash skin with soap and water. Seek medical advice in case of persistent discomfort.
- Eye contact:** Flush with water (preferably using eye wash equipment) until irritation subsides. Seek medical advice if symptoms persist.
- General:** When obtaining medical advice, show the safety data sheet or label.

4.2. Most important symptoms and effects, both acute and delayed

May cause slight irritation to the skin and eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms. No special immediate treatment required.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

- Suitable extinguishing media:** Extinguish with powder, foam or water mist. Use water or water mist to cool non-ignited stock.
- Unsuitable extinguishing media:** Do not use water stream, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

Not flammable, but combustible. The product decomposes when combusted and the following toxic gases can be formed: Carbon monoxide and carbon dioxide.

5.3. Advice for fire-fighters

Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases - seek fresh air. Wear Self-Contained Breathing Apparatus (SCBA) with chemical resistant gloves.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Stop leak if this can be done without risk. Wear safety goggles if there is a risk of eye

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splash. Wear gloves.

For emergency responders: In addition to the above: Normal protective clothing equivalent to EN 469 is recommended.

6.2. Environmental precautions

Prevent spillage from entering drains and/or surface water.

6.3. Methods and material for containment and cleaning up

Contain and absorb spill with sand or other absorbent material and transfer to suitable waste containers. Wipe up minor spills with a cloth.

6.4. Reference to other sections

See section 8 for type of protective equipment. See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use the product under well-ventilated conditions. Running water and eye wash equipment should be available. Wash hands before breaks, before using restroom facilities, and at the end of work.

7.2. Conditions for safe storage, including any incompatibilities

The product should be stored safely, out of reach of children and away from food, animal feeding stuffs, medicines, etc. Keep in tightly closed original packaging. Do not expose to heat (e.g. sunlight). Store in a dry, cool, well-ventilated area. Store at temperatures below 45°C. Do not store with the following: Strong oxidisers.

7.3. Specific end use(s)

No special uses in addition to identified uses in 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit: Contains no substances subject to reporting requirements

Measuring methods: Compliance with occupational exposure limits may be checked by occupational hygiene measurements.

Legal basis: EH40/2005 Workplace exposure limits. Last amended January 2020.

8.2. Exposure controls

Appropriate engineering controls: Wear the personal protective equipment specified below.

Personal protective equipment, eye/face protection: Wear safety goggles if there is a risk of eye splash. Eye protection must conform to EN 166.

Personal protective equipment, hand protection: Plastic or rubber gloves recommended.

Personal protective equipment, respiratory protection: Not required.

Environmental exposure controls: Ensure compliance with local regulations for emissions.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Parameter	Value/unit
State	Paste
Colour	No data
Odour	No data
Solubility	Not miscible with the following: Water.
Explosive properties	No data
Oxidising properties	No data

Parameter	Value/unit	Remarks
pH (solution for use)	No data	
pH (concentrate)	No data	
Melting point	No data	
Freezing point	No data	
Initial boiling point and boiling range	No data	
Flash Point	> 150 °C	
Evaporation rate	No data	
Flammability (solid, gas)	No data	
Flammability limits	No data	
Explosion limits	No data	
Vapour pressure	No data	
Vapour density	No data	
Relative density	No data	
Partition coefficient n-octanol/water	No data	
Auto-ignition temperature	No data	
Decomposition temperature	No data	
Viscosity	No data	
Odour threshold	No data	

9.2 Other information

Parameter	Value/unit	Remarks
Density	< 1000 kg/m ³	(25 °C)

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with the following: Strong oxidisers.

10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Do not expose to heat (e.g. sunlight).

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10.5. Incompatible materials

Strong oxidisers.

10.6. Hazardous decomposition products

The product decomposes when combusted or heated to high temperatures and the following toxic gases can be formed:
Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

LGEM 2

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
	LD50		4260 mg/kg		Calculated	

Phosphorodithioc acid, mixed O,O-bis(2-ethylhexyl and iso-butyl and iso-propyl) esters, zinc salts, cas-no 85940-28-9

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		3000 mg/kg			

Ingestion may cause discomfort. The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - dermal

LGEM 2

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
	LD50		2822 mg/kg		Calculated	

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - inhalation: The product does not have to be classified. Test data are not available.

Skin corrosion/irritation: May irritate the skin - may cause reddening. The product does not have to be classified. Test data are not available.

Serious eye damage/eye irritation: May cause eye irritation. The product does not have to be classified. Test data are not available.

Respiratory sensitisation or skin sensitisation: The product does not have to be classified. Test data are not available.

Germ cell mutagenicity: The product does not have to be classified. Test data are not available.

Carcinogenic properties: The product does not have to be classified. Test data are not available.

Reproductive toxicity: The product does not have to be classified. Test data are not available.

Single STOT exposure: The product does not have to be classified. Test data are not available.

Repeated STOT exposure: The product does not have to be classified. Test data are not available.

Aspiration hazard: The product does not have to be classified. Test data are not available.

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Other toxicological effects: None known.

SECTION 12: Ecological information

12.1. Toxicity

Phosphorodithioc acid, mixed O,O-bis(2-ethylhexyl and iso-butyl and iso-propyl) esters, zinc salts, cas-no 85940-28-9

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Cyprinodon variegatus		96hLC50	2.2 mg/l			

The product contains small quantities of environmentally hazardous substances. The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

12.2. Persistence and degradability

Not expected to be biodegradable. Test data are not available.

12.3. Bioaccumulative potential

No bioaccumulation expected. Test data are not available.

12.4. Mobility in soil

Not expected to be mobile in soil. Test data are not available.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

None known.

German water pollution classification (WGK): 1

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid discharge to drain or surface water. If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste (Dir. 2008/98/EU). Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements. Empty, cleansed packaging should be disposed of for recycling. Uncleansed packaging is to be disposed of via the local waste-removal scheme.

Category of waste: EWC code: Depends on line of business and use, for instance 13 08 99* wastes not otherwise specified

Absorbent/cloth contaminated with the product: EWC code: 15 02 03 Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02.

SECTION 14: Transport information

14.1. UN-No.: Not applicable.

14.4. Packing group: Not applicable.

14.2. UN proper shipping name: Not applicable.

14.5. Environmental hazards: Not applicable.

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14.3. Transport hazard class(es): Not applicable.

14.6. Special precautions for user

None.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable.

Other Information: The product is not covered by the rules for transport of dangerous goods.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Special Provisions: None.

15.2. Chemical Safety Assessment

Other Information: Chemical safety assessment has not been performed.

SECTION 16: Other information

Version history and indication of changes

Version	Revision date	Responsible	Changes
2.2.0	24/03/2021	Bureau Veritas HSE - DOL	1,8,9,14,16

Abbreviations:
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: Very Persistent and Very Bioaccumulative
 STOT: Specific Target Organ Toxicity

Other Information: This safety data sheet has been prepared for and applies to this product only. It is based on our current knowledge and the information that the supplier was able to provide about the product at the time of preparation. The safety data sheet complies with applicable law on preparation of safety data sheets in accordance with 1907/2006/EC (REACH) as subsequently changed.

Training advice: A thorough knowledge of this safety data sheet should be a prerequisite condition.

Classification method: Calculation based on the hazards of the known components.

List of relevant H-statements

H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H411 Toxic to aquatic life with long lasting effects.

Document language: GB