



Safety data sheet

Revision: 12-06-2015
Replaces: 07-05-2015
Version: 03.01/GBR

SECTION 1: Identification of the substance/mixture 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 Lubricating grease

1.3. Details of the supplier of the safety data sheet

Supplier: SKF MAINTENANCE PRODUCTS
Postbus 1008
NL-3430 BA Nieuwegein
The Netherlands
Tel: +31 30 6307200
Email: sebastien.david@skf.com
WWW: www.skf.com

1.4. Emergency telephone number

0870 600 6266 (UK only) Only available to health professionals.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP-classification (Regulation (EC) No 1272/2008): Aquatic Chronic 2;H411

Please see section 16 for the full text of H-phrases.

Most serious harmful effects: Toxic to aquatic life with long lasting effects.
Persons with a known allergy to Polysulfides, di-tert-Bu & 2,5-bis(octyldithio)-1,3,4-thiadiazole may exhibit an allergic response to the product.

2.2. Label elements



H-phrases: Toxic to aquatic life with long lasting effects.(H411)

P-phrases: Avoid release to the environment.(P273)
Dispose of contents/container in accordance with local regulation.(P501-A)

Supplemental information: Contains Polysulfides, di-tert-Bu & 2,5-bis(octyldithio)-1,3,4-thiadiazole. May produce an allergic reaction.

2.3. Other hazards

Assessment to determine PBT and vPvB has not been made.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Registration number	CAS/EC Number	Substance	CLP-classification (Regulation (EC) No 1272/2008)	w/w%	Note
.	12001-85-3 234-409-2	Naphthenic acids, zinc salts	Skin Irrit. 2;H315 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	0,25 - 1	.
.	1314-13-2 215-222-5	zinc oxide	Aquatic Acute 1;H400 Aquatic Chronic 1;H410	0,25 - 1	.
.	--	Aromatic phosphoric acid ester derivative	Aquatic Acute 1;H400 Aquatic Chronic 1;H410	0,25 - 1	.
01-211954051 5-43-xxxx	68937-96-2 273-103-3	Polysulfides, di-tert-Bu	Skin Sens. 1;H317 Aquatic Chronic 3;H412	0,1 - 1	.
.	13539-13-4 236-912-2	2,5-bis(octyldithio)-1,3,4-thiadiazole	Acute Tox. 4;H332 Eye Irrit. 2;H319 STOT SE 3;H335 Skin Irrit. 2;H315 Skin Sens. 1;H317 Aquatic Chronic 4;H413	0,1 - 1	.
01-211949082 2-33-xxxx	128-39-2 204-884-0	2,6-di-tert-butylphenol	Skin Irrit. 2;H315 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	0,1 - 0,25	.
01-211956511 3-46-xxxx	128-37-0 204-881-4	2,6-Ditertiary-butylpara-cresol	Aquatic Chronic 1; H410	0,1 - 0,25	.
.	112-90-3 204-015-5	(Z)-octadec-9-enylamine	Acute Tox. 4;H302 Asp. Tox. 1;H304 STOT SE 3;H335 STOT RE 2;H373 (gastro-intestinal tract, liver, immune system) Skin Corr. 1B;H314 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	0,1 - 0,25	.

Please see section 16 for the full text of H-phrases.

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 discomfort.
Skin:	Remove contaminated clothing. Wash skin with soap and water. Seek medical advice in case of persistent discomfort.
Eyes:	Flush with water (preferably using eye wash equipment) until irritation subsides. Seek medical advice if symptoms persist.
Other information:	When obtaining medical advice, show the safety data sheet or label.

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

The product contains small amounts of Polysulfides, di-tert-Bu & 2,5-bis(octyldithio)-1,3,4-thiadiazole. Persons with a known allergy may exhibit an allergic response to the product.

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

Treat symptoms. No special immediate treatment required.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with powder, foam, carbon dioxide 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. Product decomposes in fire conditions or when heated to high

temperatures, and inflammable and toxic gases may be released.

5.3. Advice for firefighters

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: Stay upwind/keep distance from source. Wear safety goggles if there is a risk of eye 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. Notify proper authorities in case of contamination of soil or aquatic environment or discharge to drains.

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

The product should be used under well-ventilated conditions and preferably under process ventilation. 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

Store safely, out of reach of children and away from food, animal feeding stuffs, medicines, etc. Do not store with the following: Strong oxidisers/ Strong acids/ Strong alkalis.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Ingredient:	Exposure limit	Comments
2,6-Ditertiary-butylpara-cresol	- (8h), - (15m) ppm 10 (8h), - (15m) mg/m ³	-

Legal basis: EH40/2005 Workplace exposure limits. Last amended December 2011.

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

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, skin protection: Wear gloves. Type of material: Nitrile rubber. Breakthrough time has not been determined for the product. Change gloves often. Gloves must conform to EN 374.

Personal protective equipment, respiratory protection: Not required.

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State:	Paste
Colour:	Black
Odour:	Characteristic
Odour threshold:	No data
pH (solution for use):	No data
pH (concentrate):	No data
Melting point/freezing point:	No data
Initial boiling point and boiling range:	No data
Flash point:	No data
Evaporation rate:	No data
Flammability (solid, gas):	No data
Upper/lower flammability limits:	No data
Upper/lower explosive limits:	No data
Vapour pressure:	No data
Vapour density:	No data
Relative density:	0,9 g/cm ³ (25 °C)
Solubility:	Insoluble in the following: Water.
Partition coefficient n-octanol/water:	No data
Auto-ignition temperature:	No data
Decomposition temperature:	No data
Viscosity:	No data
Explosive properties:	No data
Oxidising properties:	No data

9.2. Other information

NLGI: 2

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with the following: Strong oxidisers/ Strong acids/ Strong alkalis.

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

None known.

10.5. Incompatible materials

Strong oxidisers/ Strong acids/ Strong alkalis.

10.6. Hazardous decomposition products

Product decomposes in fire conditions or when heated to high temperatures, and inflammable and toxic gases may be released.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral: The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met. Ingestion of large quantities may cause discomfort.

68937-96-2:
Rat: LD50 = 6500 mg/kg

1314-13-2:
Rat: LD50 > 2001 mg/kg

128-39-2:
Rat: LD50 > 2001 mg/kg

128-37-0:

	Rat: LD50 = 2930 mg/kg
Acute toxicity - dermal:	The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met. 128-39-2: Rabbit: LD50 > 1001 mg/kg 128-37-0: Rat: LD50 > 5000 mg/kg
Acute toxicity - inhalation:	The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met. 1314-13-2: Rat: 4hLD50 = 5,7 mg/l
Skin corrosion/irritation:	The product does not have to be classified. Test data are not available for all substances 128-39-2: Rat: Slightly irritating
Serious eye damage/eye irritation:	The product does not have to be classified. Test data are not available for all substances 128-39-2: Rabbit: Slightly irritating
Respiratory sensitisation or skin sensitisation:	The product does not have to be classified. Test data are not available for all substances The product contains small amounts of Polysulfides, di-tert-Bu & 2,5-bis(octyldithio)-1,3,4-thiadiazole. Persons with a known allergy may exhibit an allergic response to the product. 128-39-2: Guinea pig: Not sensitizing
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.
Other toxicological effects:	On warming/heating, the vapours emitted may cause irritation to the respiratory organs. May cause coughing and breathing difficulties.

SECTION 12: Ecological information

12.1. Toxicity

	Toxic to aquatic life with long lasting effects.
Acute toxicity:	68937-96-2: Daphnia: 48hEC50 = 63 mg/l (OECD 202) 1314-13-2: Fish: 96hLC50 > 6 mg/l Daphnia: 48hEC50 = 2,2 mg/l

Aromatic phosphoric acid ester derivative:

Fish: 96hLC50 = 0,8 mg/l

Daphnia: 48hEC50 = 0,202 mg/l

128-39-2:

Fish: 96hLC50 = 0,11 mg/l

Daphnia: 48hEC50 = 0,45 mg/l

128-37-0:

Fish: 96hLC50 > 0,57 mg/l (OECD 203)

Daphnia: 48hEC50 > 0,17 mg/l

112-90-3:

Daphnia: 48hEC50 = 0,011 mg/l

Chronic toxicity:

68937-96-2:

Algae: 72hEC50 > 101 mg/l (OECD 201)

1314-13-2:

Algae: 72hEC50 = 0,17 mg/l

128-39-2:

Algae: 72hEC50 = 3,6 mg/l

128-37-0:

Daphnia: 21dNOEC > 0,39 mg/l

Algae: 72hEC50 > 0,42 mg/l

12.2. Persistence and degradability

Not expected to be biodegradable.

68937-96-2:

13% (28d)

128-37-0:

30%

12.3. Bioaccumulative potential

The product contains at least one substance that is bioaccumulative in organisms.

12.4. Mobility in soil

Test data are not available.

12.5. Results of PBT and vPvB assessment

No assessment has been made.

12.6. Other adverse effects

Oil products may cause soil and water pollution.

German water pollution classification (WGK): 1

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid discharge to drain or surface water. Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site.

EWC code: Depends on line of business and use, for instance 16 03 05*organic wastes containing dangerous substances

Absorbent/cloth contaminated with the product:

EWC code: 15 02 02 absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

Uncleansed packaging is to be disposed of via the local waste-removal scheme. Empty, cleansed packaging should be disposed of for recycling.

SECTION 14: Transport information

ADR/RID

14.1. UN number	3077
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Z)-octadec-9-enylamine)
14.3. Transport hazard class(es)	9
14.4. Packing group	III
Hazard identification number	90
Tunnel restriction code:	E
14.5. Environmental hazards	The product must be labelled as an environmental hazard (symbol: fish and tree) in packaging sizes of more than 5 kg/l.

ADN

14.1. UN number	3077
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Z)-octadec-9-enylamine)
14.3. Transport hazard class(es)	9
14.4. Packing group	III
14.5. Environmental hazards	The product must be labelled as an environmental hazard (symbol: fish and tree) in packaging sizes of more than 5 kg/l.

Transport in tank vessels:

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IMDG

14.1. UN number	3077
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Z)-octadec-9-enylamine)
14.3. Transport hazard class(es)	9
14.4. Packing group	III
14.5. Environmental hazards	The product must be labelled as a Marine Pollutant (MP) in packaging sizes of more than 5 kg/l.

IMDG Code segregation group:

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ICAO/IATA

14.1. UN number	3077
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Z)-octadec-9-enylamine)
14.3. Transport hazard class(es)	9
14.4. Packing group	III
14.5. Environmental hazards	The product must be labelled as an environmental hazard (symbol: fish and tree) in packaging sizes of more than 5 kg/l.

14.6. Special precautions for user

None.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information

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

Special provisions: Directive 2012/18/EU (Seveso), E2 Hazardous to the Aquatic Environment in Category Chronic 2 : Column 2: 200 t, Column 3: 500 t.

15.2. Chemical safety assessment

Chemical safety assessment has not been performed.

SECTION 16: Other information

Changes have been made in the following sections: 2, 3, 14, 16

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

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

H-phrases: H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

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

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.
