



Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 15.09.2021

Version number 9 (replaces version 8)

Revision: 15.09.2021

* **SECTION 1: Identification of the substance/mixture and of the company/
undertaking**

· **1.1 Product identifier**

· **Trade name:** TRW GLK 1 Brake Grease

· **Article number:** PFG110.Z, PFG110, 32932966.Z, 32932966, 32932967.Z, 32932967

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

No further relevant information available.

· **Application of the substance / the mixture**

Grease

Professional use

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

ZF Aftermarket UK Ltd.

Abbeyfield Road

Lenton

Nottingham, NG7 2SX

Tel +44 333 240 1123

Fax +44 115 986 92 61

<https://www.zf.com>

· **Informing department:**

Phone: +49 (0) 7541 77 0

E-Mail adress of the competent person for the safety data sheet:

reach@dekra.com

· **1.4 Emergency telephone number:**

Poison Information Center Munich

Phone: +49 (0) 89 - 19 240

Information in German and English

* **SECTION 2: Hazards identification**

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



Skin Sens. 1 H317 May cause an allergic skin reaction.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS07

· **Signal word** Warning

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Hazard-determining components of labelling:

Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol
Reaction mass of 1H-Benzotriazole-1-methanamine,N,N-bis(2-ethylhexyl)-6-methyl-,2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl-, N,N-Bis(2-ethylhexyl)-4-methyl-1H-benzotriazol

Hazard statements

H317 May cause an allergic skin reaction.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P103 Read carefully and follow all instructions.

P280 Wear protective gloves / protective clothing.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

2.3 Other hazards**Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

*** SECTION 3: Composition/information on ingredients****3.2 Mixtures**

• **Description:** Lithium soap lubricating grease

Dangerous components:

CAS: 38900-29-7 EINECS: 254-184-4 Reg.nr.: 01-2120119814-57-X	Dilithium azelate ⚠ Acute Tox. 4, H302	2.5 - 10%
EC number: 946-010-7 Reg.nr.: 01-2120770934-44-X	Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol ⚠ Skin Sens. 1, H317	2.5 - 10%
EC number: 939-700-4 Reg.nr.: 01-2119982395-25-X	Reaction mass of 1H-Benzotriazole-1-methanamine,N,N-bis(2-ethylhexyl)-6-methyl-,2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl-, N,N-Bis(2-ethylhexyl)-4-methyl-1H-benzotriazol ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Skin Sens. 1B, H317	≥ 0.1 - < 0.25%

• **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

• **General information** Instantly remove any clothing contaminated by the product.

• **After inhalation** Supply fresh air; consult doctor in case of symptoms.

After skin contact

Wash with water and soap.

In case of skin irritations or sensitizing effects, consult doctor.

After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

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- **After swallowing**
Rinse out mouth.
Do not induce vomiting.
In case of persistent symptoms consult doctor.
 - **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
 - **After skin contact:** Allergic reactions
 - **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.
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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
 - **Suitable extinguishing agents**
Extinguishing powder, foam or water jet. Fight larger fires with water jet or alcohol-resistant foam.
Use fire fighting measures that suit the environment.
 - **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
 - **5.2 Special hazards arising from the substance or mixture**
Do not inhale smoke and combustion products.
During incomplete combustion carbon monoxide can be formed.
Can be released in case of fire:
Nitrogen oxides (NO_x)
Metal oxides
 - **5.3 Advice for firefighters**
 - **Protective equipment:** Wear self-contained breathing apparatus.
 - **Additional information**
Remove goods in stock from incendiary zone, if possible.
Use water to keep fire exposed containers cool.
-

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Particular danger of slipping on leaked/spilled product.
Avoid contact with the product.
 - **6.2 Environmental precautions:**
Clean contaminated surfaces thoroughly.
Do not allow to enter drainage system, surface or ground water.
 - **6.3 Methods and material for containment and cleaning up:**
Collect mechanically.
Dispose of contaminated material as waste according to section 13.
Clean the accident area carefully; suitable cleaners are:
warm water and cleaning agent
 - **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.
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SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Avoid contact with eyes and skin.
Ensure good ventilation/exhaustion at the workplace.
Don't eat, drink or smoke while working.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
Store only in the original container.
Keep container tightly closed and store upright to prevent any spill of product.
- **Information about storage in one common storage facility:**
Store away from oxidising agents.
Store away from foodstuffs.
- **Further information about storage conditions:**
Keep away from ignition sources.
Store in cool, dry conditions in well sealed containers.
Protect from direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

* SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs		
38900-29-7 Dilithium azelate		
Oral	DNEL (consumer, short-term, systemic)	27 mg/kg bw/day (human)
	DNEL (consumer, long-term, systemic)	13.5 mg/kg bw/day (human)
Dermal	DNEL (worker, long-term, systemic)	13.5 mg/kg bw/day (human)
	DNEL (consumer, short-term, systemic)	13.5 mg/kg bw/day (human)
	DNEL (consumer, long-term, systemic)	13.5 mg/kg bw/day (human)
	DNEL (worker, long-term, local)	0.172 mg/kg bw/day (human)
	DNEL (consumer, long-term, local)	0.023 mg/cm ² (human)
Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol		
Oral	DNEL (consumer, long-term, systemic)	4.17 mg/kg bw/day (human)
Dermal	DNEL (worker, long-term, systemic)	8.33 mg/kg bw/day (human)
	DNEL (consumer, long-term, systemic)	4.17 mg/kg bw/day (human)
Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl-, N,N-Bis(2-ethylhexyl)-4-methyl-1H-benzotriazol		
Oral	DNEL (consumer, long-term, systemic)	0.2 mg/kg bw/day (human)
Dermal	DNEL (worker, long-term, systemic)	0.4 mg/kg bw/day (human)

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Inhalative	DNEL (consumer, long-term, systemic)	0.2 mg/kg bw/day (human)
	DNEL (worker, long-term, systemic)	1.3 mg/m ³ (human)
	DNEL (consumer, long-term, systemic)	0.3 mg/m ³ (human)

· PNECs**38900-29-7 Dilithium azelate**

PNEC aqua (freshwater) 0.023 mg/L (.)

PNEC aqua (marine water) 0.002 mg/L (.)

Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl-, N,N-Bis(2-ethylhexyl)-4-methyl-1H-benzotriazol

PNEC aqua (freshwater) 0.001 mg/L (.)

PNEC aqua (marine water) 0 mg/L (.)

PNEC STP 0.69 mg/L (.)

· Additional information: The lists that were valid during the compilation were used as basis.**· 8.2 Exposure controls****· Individual protection measures, such as personal protective equipment****· General protective and hygienic measures**

Avoid close or long term contact with the skin.

Do not carry cleaning cloths impregnated with the product in trouser pockets.

Wash hands during breaks and at the end of the work.

· Breathing equipment:

Not necessary if room is well-ventilated.

Use breathing protection in case of insufficient ventilation.

Filter P2.

· Hand protection

Protective gloves, e.g. nitril rubber impregnated cotton gloves.

To avoid skin problems reduce the wearing of gloves to the required minimum.

· Material of gloves Nitrile rubber, NBR**· Penetration time of glove material**

In case of a layer thickness of 0.4 mm the penetration time is longer than 480 minutes.

· Eye/face protection

Tightly sealed safety glasses.

SECTION 9: Physical and chemical properties**· 9.1 Information on basic physical and chemical properties****· General Information****· Colour:**

Beige

· Odour:

Characteristic

· Odour threshold:

Not determined.

· Melting point/freezing point:

Not determined

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<ul style="list-style-type: none">· Boiling point or initial boiling point and boiling range· Flammability· Lower and upper explosion limit· Lower:· Upper:· Flash point:· Self-inflammability:· SADT· pH· Solubility· Water:· Partition coefficient n-octanol/water (log value)· Vapour pressure at 20 °C:· Density and/or relative density· Density at 20 °C	<p>Not determined</p> <p>Not applicable.</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not applicable</p> <p>Product is not selfigniting.</p> <p>Not applicable.</p> <p>Not applicable.</p> <p>Insoluble</p> <p>Not determined.</p> <p>< 0.001 hPa</p> <p>0.97 g/cm³</p>
<ul style="list-style-type: none">· 9.2 Other information· Appearance:· Form:· Important information on protection of health and environment, and on safety.· Explosive properties:· Change in condition· Evaporation rate	<p>Pasty</p> <p>Product is not explosive.</p> <p>Not determined.</p>
<ul style="list-style-type: none">· Information with regard to physical hazard classes· Explosives· Flammable gases· Aerosols· Oxidising gases· Gases under pressure· Flammable liquids· Flammable solids· Self-reactive substances and mixtures· Pyrophoric liquids· Pyrophoric solids· Self-heating substances and mixtures· Substances and mixtures, which emit flammable gases in contact with water· Oxidising liquids· Oxidising solids· Organic peroxides· Corrosive to metals· Desensitised explosives	<p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p>

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Avoid contact with strong oxidizing agents.
- **10.6 Hazardous decomposition products:**
None in case of intended use and storage in compliance with instructions.

* SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values that are relevant for classification:**

Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol

Oral LD50 > 2,000 mg/kg (rat) (OECD 425)

Dermal LD50 > 2,000 mg/kg (rat) (OECD 402)

Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl-, N,N-Bis(2-ethylhexyl)-4-methyl-1H-benzotriazol

Oral LD50 3,313 mg/kg (rat) (OECD 401)

Dermal LD50 > 2,000 mg/kg (rat) (OECD 402)

- **Skin corrosion/irritation** Long-term skin contact may cause skin irritation and/or dermatitis.
- **Serious eye damage/irritation** Splashes can cause temporary eye irritation.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

* SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl-, N,N-Bis(2-ethylhexyl)-4-methyl-1H-benzotriazol

EC50 4.45 mg/l/24h (Daphnia magna) (OECD 202)

EC50 2.05 mg/l/48h (Daphnia magna) (OECD 202)

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LC50	1.3 mg/l/96h (Brachydario rerio) (OECD 203)
EC50	0.762 mg/l/72h (Desmodemus subspicatus) (OECD 201)

- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** There are no data available about the preparation.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

* SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must be specially treated under adherence to official regulations.
- **Uncleaned packagings:**
- **Recommendation:**
Dispose of packaging according to regulations on the disposal of packagings.
Non contaminated packagings can be used for recycling.
Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

SECTION 14: Transport information

· 14.1 UN number or ID number · ADR/ADN, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR/ADN, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR/ADN, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR/ADN, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.

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· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

* SECTION 15: Regulatory information


- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Substances of very high concern (SVHC) according to REACH, Article 57**
- None of the ingredients is contained.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
 - H302 Harmful if swallowed.
 - H315 Causes skin irritation.
 - H317 May cause an allergic skin reaction.
 - H400 Very toxic to aquatic life.
 - H411 Toxic to aquatic life with long lasting effects.

- **Department issuing data specification sheet:**

 **DEKRA** This Safety Data Sheet has been drawn up in cooperation with:
DEKRA Assurance Services GmbH, Hanomagstr. 12, D-30449 Hanover, Germany,
phone: (+49) 511 42079 - 0, reach@dekra.com.

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- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative

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Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1B: Skin sensitisation – Category 1B
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
· *** Data compared to the previous version altered.**

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