

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended
by UK REACH Regulations SI 2019/758



ZF Aftermarket

Trade name: ZF LifeguardFluid 8.2

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: ZF LifeguardFluid 8.2

Product code: 0671.090.545

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

Use of the Substance/Mixture: Gear oil

Uses advised against: No uses advised against identified.

1.3 Details of the supplier of the safety data sheet

ZF Friedrichshafen AG
ZF Aftermarket
Obere Weiden 12
97424 Schweinfurt
Germany
+49 9721 475 60
www.zf.com/contact

1.4 Emergency telephone number

24/7h Emergency telephone number:

+49 (0)89 19240 Information in German and English

2. Hazards identification

2.1 Classification of the substance or mixture

The product has not been classified as hazardous but needs to be labelled according to regulation GB-CLP.

Classification according to GB-CLP

Hazard summary

Physical Hazards: No data available.

2.2 Label elements

EUH210: Safety data sheet available on request.

2.3 Other hazards

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By handling of mineral oil products and chemical products no particular hazard is known when normal precautions (item 7) and personal protective equipment (item 8) are kept. The product may not be released into the environment without control.

3. Composition/information on ingredients

3.2 Mixtures

General information:

Mixture containing severely refined base oils and additives.

Chemical name	Identifier	Concentration *	UK-REACH Registration No.
Hydrocarbons, low viscous	EC: 500-183-1	50,00% - <100,00%	
base oil, low viscous	EINECS: 276-738-4	20,00% - <50,00%	
Amine aromatic , alkylated	EINECS: 270-128-1	0,10% - <1,00%	

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

Classification

Chemical name	Identifier	Classification
Hydrocarbons, low viscous	EC: 500-183-1	GBCLP: Asp. Tox. 1; H304
base oil, low viscous	EINECS: 276-738-4	GBCLP: Asp. Tox. 1; H304
Amine aromatic, alkylated	EINECS: 270-128-1	GBCLP: Repr. 2;H361f, Aquatic Chronic 3;H412

Please note that the mineral oils and petroleum distillates used in our products are severely refined and have a DMSO extract < 3% as measured by method IP 346 and are not classified as carcinogenic according to Note L of Annex VI of Regulation GB-CLP.

4. First aid measures

General:

Instantly remove any clothing soiled by the

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product.

4.1 Description of first aid measures

If inhaled:	Supply fresh air; consult doctor in case of symptoms.
Eye contact:	Promptly wash eyes with plenty of water while lifting the eye lids.
Skin Contact:	Wash with soap and water.
Ingestion:	Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed

May cause skin and eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Get medical attention if symptoms occur.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:	CO ₂ , fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable surfactant added.
Unsuitable extinguishing media:	Water with a full water jet.

5.2 Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters

Special fire fighting procedures:	Move container from fire area if it can be done without risk. Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Collect contaminated fire fighting water separately. It must not enter drains.
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Special protective equipment for Self-contained breathing apparatus and full

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fire-fighter:

protective clothing must be worn in case of fire.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

In case of spills, beware of slippery floors and surfaces.

6.2 Environmental precautions

Prevent from spreading (e.g. by binding or oil barriers). Avoid release to the environment. Environmental manager must be informed of all major spillages. Prevent further leakage or spillage if safe to do so. Do not allow to enter drainage system, surface or ground water.

6.3 Methods and materials for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acidbinders, universal binders, sawdust). Dispose of the material collected according to regulations. Stop the flow of material, if this is without risk.

6.4 Reference to other sections

See Section 8 of the SDS for Personal Protective Equipment. See Section 7 for information on safe handling See Section 13 for information on disposal.

7. Handling and storage

7.1 Precautions for safe handling

Prevent formation of aerosols. Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products. Observe good industrial hygiene practices. Provide adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Local regulations concerning handling and storage of waterpolluting products have to be followed. Do not heat up to temperatures close to the flash point.

7.3 Specific end use(s)

Specific use(s):

No data available.

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Storage Class:

10, Combustible liquids

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

8.2 Exposure controls

Appropriate engineering controls:

Provide adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General Information:

Wash hands before breaks and after work. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be adhered to in handling the chemicals or the mineral oil products.

Eye/face protection:

Avoid contact with skin and eyes. Goggles/face shield are recommended. If risk of splashing, wear safety goggles or face shield.

Skin protection

Hand protection:

Material: Nitrile butyl rubber (NBR).
Min. Breakthrough time: ≥ 480 min
Recommended thickness of the material:
 $\geq 0,38$ mm
Avoid long-term and repeated skin contact. Suitable gloves can be recommended by the glove supplier. Use skin protection cream for preventive skin

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protection. Protective gloves, where permitted in acc. To safety directions. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Other:

Do not carry cleaning cloths impregnated with the product in trouser pockets. Wear suitable protective clothing.

Respiratory protection:

Ensure good ventilation/exhaustion at the workplace. Avoid breathing vapour/ aerosol.

Thermal hazards:

Not known.

Hygiene measures:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Environmental controls:

No data available.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: liquid
Colour: Amber
Odour: Characteristic
pH: substance/mixture is non-soluble (in water)

Freezing point	not determined	
Boiling point	not determined	
Flash point	> 200 °C	DIN EN ISO 2592
Evaporation rate	Not applicable for mixtures	

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Flammability (solid, gas)	not determined	
Upper explosion limit	Not applicable for mixtures	
Lower explosion limit	Not applicable for mixtures	
Vapour pressure	Not applicable for mixtures	
Relative vapour density	Not applicable for mixtures	
Relative density	0,83 g/cm ³ (15°C)	
Solubility(ies)		
Water solubility	Insoluble in water	
Solubility in other solvents	No data available.	
Partition coefficient: n-octanol/water	Not applicable for mixtures	
Autoignition temperature	not determined	
Decomposition Temperature:	not determined	
Viscosity, kinematic	25mm ² /s (40°C)	
Explosive properties	Value not relevant for classification	
Oxidizing properties	Value not relevant for classification	
Particle characteristics	Not applicable	

9.2 Other information

No data available.

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10. Stability and reactivity

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|---|---|
| 10.1 Reactivity | Stable under normal use conditions. |
| 10.2 Chemical stability: | Stable under normal use conditions. |
| 10.3 Possibility of hazardous reactions: | Stable under normal use conditions. |
| 10.4 Conditions to avoid: | Stable under normal use conditions. |
| 10.5 Incompatible materials: | Strong oxidizing substances. Strong acids.
Strong bases. |
| 10.6 Hazardous decomposition products: | Thermal decomposition or combustion
may liberate carbon oxides and other toxic
gases or vapors. |

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Oral
Product: Not classified for acute toxicity based on
available data.

Specified substance(s)
Hydrocarbons, low viscous LD 50 (Rat): > 5.000 mg/kg

base oil, low viscous LD 50 (Rat): > 5.001 mg/kg (OECD 401)

Amine aromatic , alkylated LD 50 (Rat): > 5.000 mg/kg (OECD 401)

Dermal
Product: Not classified for acute toxicity based on
available data.

Inhalation
Product: Not classified for acute toxicity based on
available data.

Specified substance(s)
Hydrocarbons, low viscous LC 50 (Rat, 4 h): > 5 mg/l Dust and mist

Skin corrosion/irritation

Product:
Based on available data, the classification criteria are not met.

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Serious eye damage/eye irritation

Product:

Based on available data, the classification criteria are not met.

Specified substance(s)

Amine aromatic , alkylated

OECD 405 (Rabbit):
Not irritant.

Respiratory or skin sensitisation

Product:

Skin sensitizer: Based on available data, the classification criteria are not met.

Respiratory sensitizer: Based on available data, the classification criteria are not met.

Specified substance(s)

Amine aromatic, alkylated

No sensitizing effect (guinea pig); OECD
406

Germ cell mutagenicity

Product:

Based on available data, the classification criteria are not met.

Carcinogenicity

Product:

Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure

Product:

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure

Product:

Based on available data, the classification criteria are not met.

Aspiration toxicity

Product:

Based on available data, the classification criteria are not met.

Other Adverse Effects:

No data available

12. Ecological information

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12.1 Toxicity

General information	Not applicable
Acute toxicity Product:	Based on available data, the classification criteria are not met.
Fish Specified substance(s) Hydrocarbons, low viscous	LC 50 (Fish, 96 h): > 750 mg/l
base oil, low viscous	LC 50 (Fish, 96 h): > 100 mg/l (OECD 203)
Amine aromatic, alkylated	LC 50 (Fish, 96 h): > 100 mg/l (OECD 203)
Aquatic Invertebrates Specified substance(s) Hydrocarbons, low viscous	EC 50 (Water Flea, 48 h): 190 mg/l
Amine aromatic, alkylated	EC 50 (Daphnia magna): 51 mg/l (OECD 202)
Chronic Toxicity Product:	Based on available data, the classification criteria are not met.
Fish Specified substance(s) base oil, low viscous	NOEC (Fish, 14 d): > 1.000 mg/l
Aquatic Invertebrates Specified substance(s) base oil, low viscous	NOEC (Water Flea, 21 d): 10 mg/l (OECD 211)
Toxicity to Aquatic Plants Specified substance(s) Hydrocarbons, low viscous	EC 50 (Alga, 72 h): > 1.000 mg/l
base oil, low viscous	NOEC (Alga, 72 h): > 100 mg/l (OECD 201)
Amine aromatic, alkylated	EC 50 (72 h): > 100 mg/l (OECD 201)

12.2 Persistence and degradability

Biodegradability Product:	Not applicable for mixtures
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14.5 Environmental hazards: --
14.6 Special precautions for user: --

IMDG

14.1 UN Number: --
14.2 UN Proper Shipping Name: --
14.3 Transport Hazard Class(es)
Class: Non-dangerous goods
Label(s): --
EmS No.: --
14.3 Packing Group: --
14.5 Environmental hazards: --
14.6 Special precautions for user: --

IATA

14.1 UN Number: --
14.2 Proper Shipping Name: --
14.3 Transport Hazard Class(es):
Class: Non-dangerous goods
Label(s): --
14.4 Packing Group: --
14.5 Environmental hazards: --
14.6 Special precautions for user: --

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
Not applicable.

15. Regulatory information

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

GB Regulations

The Ozone-Depleting Substances and Fluorinated Greenhouse Gases (Amendment etc.) (EU Exit) Regulations 2019: none

The Persistent Organic Pollutants (Amendment) (EU Exit) Regulations 2020: none

The Prior Informed Consent (PIC) Regulation

Regulation Sources	Chemical name
Part 1: Chemicals Subject to Export Notification	Diphenylamine

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15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out.

DIRECTIVE Control of Major Accident Hazards Regulations 2015 Not applicable

16. Other information

Revision Information: Vertical lines in the margin indicate an amendment.

Wording of the H-statements in section 2 and 3

H304 May be fatal if swallowed and enters airways.
H361f Suspected of damaging fertility
H412 Harmful to aquatic life with long lasting effects.

Other information: The classification complies with the current GB lists; however, it has been supplemented with expert literature information and information provided by/about our company. The following evaluation methods were used: On the basis of test data; Calculation Method; Bridging Principle "Substantially similar mixtures"; Expert Judgement

Disclaimer:

The data contained in this safety data sheet are based on our current knowledge and experience and are given to the best of our knowledge and belief. It characterizes the product only with regard to safety requirements for handling, transport and disposal. The data do not describe the product's properties (tech. product specification). Neither should any agreed property nor the suitability of the product for any specific technical application be deduced from the data contained in this safety data sheet. Modifications on this document are not allowed. The data are not transferable to other products. In the case of mixing the product with other products or in the case of processing, the data in this safety data sheet are not necessarily valid for the new-made material. It is the responsibility of the recipient of the product to observe federal, state and local law. Please contact us to obtain up-to-date safety data sheets. This document was issued electronically and has no signature.