



SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006

ZF Lifeguard Fluid 8.1 MB DCT

Version number: 1

Issued: 2026-07-13

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

1.1. Product identifier

Trade name

ZF Lifeguard Fluid 8.1 MB DCT

Article No.

5961.309.314

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

Product type

Mixture.

Relevant identified uses

Gear oil.

Not suitable for use in

No uses advised against identified.

1.3. Details of the supplier of the safety data sheet

SDS created by

Global Division B Product Compliance Mgmt. System (BWC)

Supplier

ZF Aftermarket

Address

ZF Friedrichshafen AG

Obere Weiden 12

97424 Schweinfurt

Germany

Telephone

+49 9721 475 60

Email

msds.zf-aftermarket@zf.com

Web site

www.zf.com/contact

Contact person

Global Division B Product Compliance Mgmt. System (BWC)



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Email

msds.zf-aftermarket@zf.com

1.4. Emergency telephone number

+353 (0)1 809 2166 for products with health and physical hazard; (+49) 89 19 240 - for other products

Available outside office hours

Yes

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classification

Aspiration hazard, hazard category 1

Hazard statements

H304

Description

The product has been classified and labelled as hazardous according to regulation (EU) 1272/2008 (CLP).

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Danger

Hazard statements

H304 May be fatal if swallowed and enters airways.

Precautionary statements

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P331 Do NOT induce vomiting.



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More information

Contains base oil, low viscous

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

2.3. Other hazards

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.

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

This mixture does not contain any substances that are assessed to be a PBT or a vPvB in a concentration $\geq 0,1\%$.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Specific concentration limits ATE	Note
Base oil, low viscous	72623-87-1 276-738-4 01-2119474889-13 649-483-00-5	50 - <100%	Asp. Tox. 1	H304 - -		-
Base oil paraffinic	64742-54-7 265-157-1 01-2119484627-25 649-467-00-8	10 - <20%	Asp. Tox. 1	H304 - -		ATE (oral): >5000 mg/kg; ATE (dermal): >5000 mg/kg; ATE (inhalation): 5 mg/kg



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Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrases M factor acute M factor chronic	Specific concentration limits ATE	Note
Base oil, low viscous	72623-86-0 276-737-9 01-2119474878-16 649-482-00-X	1 - <10%	Asp. Tox. 1	H304 - -		L
Alkyl amine	1218787-32-6 620-540-6 01-2119510877-33 -	0.01 - <0.1%	Acute Tox. 4 - oral, Skin Corr. 1C, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1	H302, H314, H318, H400, H410 - -		M-Factor (Acute aquatic toxicity): 10 M- Factor (Chronic aquatic toxicity): 1
Alkylamine, long chain	124-28-7 204-694-8 01-2119486676-20 -	0.01 - <0.1%	Acute Tox. 4 - oral, Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1	H302, H314, H318, H400, H410 M-acut=10 M-chro=1		M(Chronic) =1 M=10
prim. alkanolamine ether	- 939-485-7 01-2119974116-35 -	0.001 - <0.1%	Acute Tox. 4 - oral, Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1	H302, H314, H318, H400, H410 M-acut=100 M-chro=1		M=100 M(C hronic)=1

Product based on

Mixture containing severely refined base oils and additives.

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 Nota L/ Nota N of Annex VI of Regulation EC 1272/2008.

Substance additional information

For the complete text of H- / EUH-statements mentioned in this section, see section 16.



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SECTION 4: First aid measures

4.1. Description of first aid measures

Instantly remove any clothing soiled by the product.

Inhalation

Supply fresh air, consult a doctor in case of discomfort.

Skin contact

Wash with soap and water.

Eye contact

Promptly wash eyes with plenty of water while lifting the eye lids.

Ingestion

Call a POISON CENTRE/doctor if you feel unwell. Rinse mouth. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not induce vomiting.

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

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

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

Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

CO₂, 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.



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5.3. Advice for firefighters

Special protective equipment for fire-fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

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.

SECTION 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 material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Preventive handling precautions

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

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



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7.3. Specific end use(s)

Not applicable.

Other

Storage Class: 10; Combustible liquids.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits

No exposure limit value known.

Biological Limit Values (BLV): No exposure indices known.

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 air-borne levels to an acceptable level.

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.

Personal Protective Equipment Symbols



Eye / face protection

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

Hand protection

Material: Nitrile butyl rubber (NBR).

Min. Breakthrough time: ≥ 480 min

Recommended thickness of the material: ≥ 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 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.



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Other skin protection

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.

Environmental exposure controls

No data available.

Other

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 foot-wear that cannot be cleaned.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Green.

Odour

Characteristic.

Melting point / freezing point

No data available

Boiling point or initial boiling point and boiling range

No data available

Flammability

No data available

Lower and upper explosion limit

Not applicable for mixtures.

Flash point

185 °C



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Auto-ignition temperature

No data available

Decomposition temperature

No data available

pH

substance/mixture is non-soluble (in water).

Kinematic viscosity

16.8 mm²/s (40 °C)

Solubility

No data available

Water solubility

Insoluble in water.

Partition coefficient n-octanol/water

Not applicable for mixtures.

Vapour pressure

Not applicable for mixtures.

Density and/or relative density

0.84 g/cm³ (15 °C)

Relative vapour density

Not applicable for mixtures.

Particle characteristics

Not applicable.

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal use conditions.

10.2. Chemical stability

Stable under normal use conditions.



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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 oxidising substances, strong acids and strong bases.

10.6. Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Not classified for acute toxicity based on available data.

Product / Sub- stance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals	Method / Guideline
base oil, low vis- cous -	LD50	> 5.000 mg/kg	Oral.	-	Rat.	OECD 401
Base oil par- affinic -	LD50	> 5.000 mg/kg	Oral.	-	Rat.	-
base oil, low vis- cous -	LD50	> 5.001 mg/kg	Oral.	-	Rat.	OECD 401
Alkylamine, long chain -	LD50	1.230 mg/kg	Oral.	-	Rat.	OECD 401
alkylamine -	LD50	1.350 mg/kg	Oral.	-	Rat.	OECD 401
Base oil par- affinic -	LD50	> 5000 mg/kg	Dermal	-	Rabbit	-
base oil, low vis- cous -	LD50	> 5.000 mg/kg	Dermal	-	Rabbit	OECD 402



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Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals	Method / Guideline
Alkylamine, long chain -	LD50	8000 mg/kg	Dermal	-	Rabbit	-
base oil, low viscous -	LC50	> 5.53 mg/l (dust/mist)	Inhalation.	4 hr	Rat.	-

Skin corrosion/irritation

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

Product / Substance name CAS / EC no.	Result	Duration of exposure	Species	Method / Guideline
Base oil paraffinic -	Not irritating.	-	-	OECD 404
alkylamine -	Skin. Causes severe burns.	14 d	Rabbit	OECD 404

Serious eye damage/irritation

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

Product / Substance name CAS / EC no.	Result	Method / Guideline
Base oil paraffinic -	Not irritating.	OECD 405

Respiratory or skin sensitisation

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

Product / Substance name CAS / EC no.	Result	Species	Method / Guideline
alkylamine -	Not sensitising.	Guinea Pig	OECD 406

Germ cell mutagenicity

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



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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

The product is classified: May be fatal if swallowed and enters airways.

Base oil paraffinic - May be fatal if swallowed and enters airways.

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

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

Acute fish toxicity

Product / Sub- stance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Base oil paraffinic -	LC50	> 100 mg/l	96 hr	Fish.	-
base oil, low viscous -	LC50	> 100 mg/l	96 hr	Fish.	OECD 203
Alkylamine, long chain -	LC50	0.26 mg/l	96 hr	Fish.	-



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Product / Sub- stance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
alkylamine -	LC50	0.1 mg/l	96 hr	Fish.	OECD 203

Acute algae toxicity

Product / Sub- stance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Base oil paraffinic -	EC50	> 100 mg/l	72 hr	Algae.	OECD 201
Alkylamine, long chain -	EC50	0.0165 mg/l	72 hr	Algae.	-
alkylamine -	EC50	0.0538 mg/l	72 hr	Algae.	OECD 201

Acute crustacean toxicity

Product / Sub- stance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
base oil, low viscous -	EL50	> 10.000 mg/l	48 hr	Water Flea.	OECD 202
Base oil paraffinic -	EL50	> 100 mg/	48 hr	Water Flea.	-
base oil, low viscous -	EL50	> 10,000 mg/	48 hr	Water Flea.	-
Alkylamine, long chain -	EC50	0.0558 mg/l	48 hr	Water Flea.	-
alkylamine -	EC50	0,043 mg/l	48 hr	Water Flea.	OECD 202

Chronical toxicity

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

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Product / Sub- stance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
base oil, low viscous -	NOEC	> 1000 mg/l	14 d	Fish.	-
base oil, low viscous -	NOEL	1000 mg/l	14 d	Fish.	-
base oil, low viscous -	NOEC	10 mg/l	21 d	Water Flea.	OECD 211
Base oil paraffinic -	NOEC	10 mg/l	21 d	Daphnia magna	OECD 211
base oil, low viscous -	NOEC	10 mg/l	21 d	Water Flea.	OECD 211
Alkylamine, long chain -	NOEC	0.036 mg/l	21 d	Water Flea.	-
alkylamine -	EC10	0,0107 mg/l	21 d	Water Flea.	OECD 211
base oil, low viscous -	NOEC	> 100 mg/l	72 hr	Algae.	OECD 201
base oil, low viscous -	NOEC	> 100 mg/l	72 hr	Algae.	OECD 201
alkylamine -	NOEC	0.0156 mg/l	72 hr	Algae.	-

12.2. Persistence and degradability

Not applicable for mixtures.

Product / Substance name CAS / EC no.	Duration	Result	Degradation	Method / Guideline
Base oil paraffinic -	-	Not readily biodegrad- able.	-	-
Alkylamine, long chain -	28 d	The substance is readily biodegradable.	68 %	OECD 301D
alkylamine -	28 d	The substance is readily biodegradable.	63 %	OECD 301D

12.3. Bioaccumulative potential

Not applicable for mixtures.



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12.4. Mobility in soil

Mobility

Not applicable for mixtures.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB in a concentration $\geq 0,1\%$.

12.6. Endocrine disrupting properties

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations

Dispose in accordance with all applicable regulations.

Discharge, treatment or disposal may be subject to national and local laws and regulations.

Waste code	Waste description
13 02 05*	mineral-based non-chlorinated engine, gear and lubricating oils

Please note - an asterisk (*) next to a code denotes that it is HAZARDOUS WASTE.

SECTION 14: Transport information

14.1. UN number

Not regulated.

14.2. UN proper shipping name

ADR / RID / ADN proper shipping name

Not regulated.



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14.3. Transport hazard class(es)

Label

Not regulated.

ADR / RID Class

Not regulated.

IMDG Class

Not regulated.

IATA Class

Not regulated.

ADN Class

Not regulated.

14.4. Packing group

Not regulated.

14.5. Environmental hazards

Not regulated.

IMDG Marine Pollutant

Not regulated.

14.6. Special precautions for user

Not regulated.

IMDG EmS

Not regulated.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

EU regulations

EU. Regulation 2024/590/EU on substances that deplete the ozone layer, Annex I, Controlled Substances: None.

Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended: None.

Regulation (EC) No. 649/2012 Import and export of dangerous chemicals: None.

National regulations

No data available



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Other regulations, limitations and legal regulations

DIRECTIVE 2012/18/EU (SEVESO III) on the control of major-accident hazards involving dangerous substances: Not applicable.

15.2. Chemical safety assessment

No data available

SECTION 16: Other information**Phrase meaning**

Asp. Tox. 1 - Aspiration hazard, hazard category 1

Acute Tox. 4 - oral - Acute toxicity, oral, hazard category 4

Skin Corr. 1C - Skin corrosion, hazard category 1C

Eye Dam. 1 - Serious eye damage, hazard category 1

Aquatic Acute 1 - Hazardous to the aquatic environment — Acute hazard category 1

Aquatic Chronic 1 - Hazardous to the aquatic environment — Chronic hazard category 1

Skin Corr. 1B - Skin corrosion, hazard category 1B

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Other**Additional information**

The classification complies with the current EU 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 information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.