



ZF LifeguardFluid 6.1 ATF

Version number: 1
Issued: 2025-07-21

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

1.1. Product identifier

Trade name

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Article No.

5961.308.623

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

Product type

Mixture.

Relevant identified uses

Lubricant.

Not suitable for use in

No uses advised against identified.

1.3. Details of the supplier of the safety data sheet

SDS created by

Sunil

Supplier

ZF Aftermarket

Address

ZF Friedrichshafen AG

Obere Weiden 12

97424 Schweinfurt

Germany

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Contact person

Marcin Nadany / Sunil



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Email

msds.zf-aftermarket@zf.com

1.4. Emergency telephone number

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

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

Hazardous to the aquatic environment — Chronic hazard category 3

Hazard statements

H412

Description

The product has been classified and labelled as hazardous according to regulation GB-CLP.

2.2. Label elements

Hazard statements

H412 Harmful to aquatic life with long lasting effects.

Supplemental hazard statements

EUH208 Contains succinic acid derivative. May produce an allergic reaction.

Precautionary statements

P273 Avoid release to the environment.

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal..



SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006

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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.

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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



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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentra- tion	Classification	H-phrase M factor acute M factor chronic	Specific concentra- tion limits ATE	Note
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7 265-157-1 01-2119484627- 25 649-467-00-8	20 - <50%	Asp. Tox. 1	H304 - -		ATE (oral): >5000 mg/kg; ATE (dermal): >5000 mg/kg; ATE (inhal- ation): 5 mg/kg
alkarylamine, long- chained	6878-20-3 253-249-4 01-2119488911- 28 -	1 - <5%	Aquatic Chronic 4	H413 - -		-
phenol derivative	- - - -	1 - <5%	Aquatic Chronic 4	H413 - -		Confidential
succinic acid derivative	93882-40-7 299-434-3 01-2120735527- 50 -	0.1 - <1%	Skin Sens. 1, Eye Irrit. 2, Aquatic Chronic 2	H317, H319, H411 - -		-
Alkyl thio phosphite	- 424-820-7 01-0000017126- 75 -	0.01 - <0.25%	Acute Tox. 4 - dermal, Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1	H312, H314, H318, H400, H410 - -		M(Chronic) =10 M (Acute)=10



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Substance additional information

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 GB-CLP.

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

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.

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.

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

Do not use 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 firefighting 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

Avoid release to the environment. 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

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.

Notes: This is a regulation from Germany that does not form a legal basis in other countries.

Other

Storage class (TRGS 510): 10, Combustible liquids.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits

Occupational exposure limits: No exposure limit value known.

Biological Limit Values (BLV): No exposure limit value 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.

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: $\geq 0,38$ mm.

Avoid long-term and repeated skin contact. Suitable gloves can be recommended by the glove supplier. Use skin protection cream for preventive skin 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 skin protection

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



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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

Red brown.

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

212 °C

Auto-ignition temperature

No data available



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Decomposition temperature

No data available

pH

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

Kinematic viscosity

34 mm²/s

Method

40°C

Solubility

Insoluble (water); No data available (other solvents).

Partition coefficient n-octanol/water

Not applicable for mixtures.

Vapour pressure

Not applicable for mixtures.

Density and/or relative density

0.84

Method

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.

10.3. Possibility of hazardous reactions

Stable under normal use conditions.



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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

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

Acute toxicity

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

Product / Sub- stance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Test animals	Method / Guideline
alkarylamine, long- chained -	LD50	> 5001 mg/kg	Oral	Rat.	OECD 423
succinic acid deriv- ative -	LD50	> 10,000 mg/kg	Oral	Rat. (Male)	-
Alkyl thio phos- phites -	LD50	> 501 mg/kg	Oral	Rat.	-
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Skin corrosion/irritation

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

Product / Substance name CAS / EC no.	Result	Species	Method / Guideline
alkarylamine, long-chained -	Not irritating.	Rabbit	OECD 404



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Serious eye damage/irritation

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

Product / Substance name CAS / EC no.	Result	Species	Method / Guideline
alkarylamine, long-chained -	Not irritating.	Rabbit	OECD 405
phenol derivative -	Not irritating.	Rabbit	OECD 405

Respiratory or skin sensitisation

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

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

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.



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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
alkarylamine, long- chained -	LC50	> 101 mg/l	96 hr.	Fish.	OECD 203
Alkyl thio phos- phites -	LC50	mg/l	96 hr.	Fish.	OECD 203
succinic acid deriv- ative -	LC50	> 100 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
alkarylamine, long- chained -	EC50	600 mg/l	72 hr	Algae.	OECD 201
Alkyl thio phos- phites -	EC50	0.31 mg/l	72 hr	Algae.	-
succinic acid deriv- ative -	EL50	> 100 mg/l	72 hr	Algae.	OECD 201

Acute crustacean toxicity



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Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
alkarylamine, long-chained -	EC50	> 101 mg/l	48 hr.	Water Flea.	OECD 202
phenol derivative -	EC50	> 101 mg/l	48 hr.	Water Flea.	-
Alkyl thio phosphites -	EC50	0.09 mg/l	48 hr.	Water Flea.	OECD 202
succinic acid derivative -	EC50	9.5 mg/l	48 hr.	Water Flea.	OECD 202

Chronic toxicity

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

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
phenol derivative -	NOEC	≥ 1 mg/l	21 d.	Water Flea.
Alkyl thio phosphites -	NOEC	0.14 mg/l	21 d.	Water Flea.

12.2. Persistence and degradability

Not applicable for mixtures.

Product / Substance name CAS / EC no.	Duration	Result	Degradation	Method / Guideline
alkarylamine, long-chained -	28 days	Not readily biodegradable.	1%	OECD 301B

12.3. Bioaccumulative potential

Not applicable for mixtures.



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Product / Substance name CAS / EC no.	Bioconcentration factor (BCF)
alkarylamine, long-chained -	1.584

12.4. Mobility in soil

Mobility

Not applicable for mixtures.

12.5. 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

Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations

Dispose in accordance with all applicable regulations.

Disposal methods : 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.



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SECTION 14: Transport information

14.1. UN number

Not regulated.

14.2. UN proper shipping name

ADR / RID / ADN proper shipping name

Not regulated.

14.3. Transport hazard class(es)

Label

Not regulated.

ADR / RID Class

Not regulated.

ADR / RID Classification code

Not regulated.

ADR / RID hazard identification number

Not regulated.

IMDG Class

Not regulated.

IATA Class

Not regulated.

ADN Class

Not regulated.

ADN Class Code

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.



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IMDG EmS

Not regulated.

14.7. Maritime transport in bulk according to IMO instruments

Not regulated.

SECTION 15: Regulatory information

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

EU regulations

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

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

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.

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

National regulations

No data available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.



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SECTION 16: Other information

Phrase meaning

Aquatic Chronic 3 - Hazardous to the aquatic environment — Chronic hazard category 3

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

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

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

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 Sens. 1 - Skin sensitisation, hazard category 1

Eye Irrit. 2 - Eye irritation, hazard category 2

Aquatic Chronic 2 - Hazardous to the aquatic environment — Chronic hazard category 2

Aquatic Chronic 4 - Hazardous to the aquatic environment — Chronic hazard category 4

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

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.

EUH208 Contains succinic acid derivative. May produce an allergic reaction.

Other

Additional information

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.