



Trade name: ZF LifeguardFluid 6.1 ATF

ZF Aftermarket

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

1.1 Product identifier

Trade name: ZF LifeguardFluid 6.1 ATF

Product code: 5961.308.623

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

Identified uses: Lubricant

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

Classification according to GB-CLP.

Environmental Hazards

Chronic hazards to the aquatic environment

Category 3

H412: Harmful to aquatic life with long lasting effects

Hazard summary

Physical Hazards: No data available.

2.2 Label elements



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Hazard Statement(s):	H412: Harmful to aquatic life with long lasting effects.
Precautionary Statements Prevention:	P273: Avoid release to the environment.
Disposal:	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.
Supplemental label information	EUH208: Contains: succinic acid derivative. May produce an allergic reaction.

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.

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.
base oil, low viscous	EINECS: 276-738-4	20,00% - <50,00%	
alkarylamine, long-chained	EINECS: 253-249-4	1,00% - <5,00%	
phenol derivative	Confidential	1,00% - <5,00%	
Alkyl thio phosphite	EC: 424-820-7	0,01% - <0,25%	
succinic acid derivative	EINECS: 299-434-3	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



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Chemical name	Identifier	Classification	
base oil, low vis- cous	EINECS: 276-738-4	GBCLP:	Asp. Tox. 1;H304
alkarylamine, long- chained	EINECS: 253-249-4	GBCLP:	Aquatic Chronic 4;H413
phenol derivative	Confidential	GBCLP:	Aquatic Chronic 4;H413
Alkyl thio phos- phite	EC: 424-820-7	GBCLP:	Skin Corr. 1B;H314, Aquatic Acute 1;H400, Aquatic Chronic 1;H410, Acute Tox. 4;H312, Eye Dam. 1;H318; M-Factor (aquatic acute): 10; M- Factor (aquatic chronic): 10
succinic acid de- rivative	EINECS: 299-434-3	GBCLP:	Eye Irrit. 2;H319, Skin Sens. 1;H317, Aquatic Chronic 2;H411

GB-CLP

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 product.
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4.1 Description of first aid measures

Inhalation:	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.



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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.

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.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full 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

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent from spreading (e.g. by binding or oil barriers). Environmental manager must be informed of all major spillages. 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



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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

Do not heat up to temperatures close to the flash point.

7.3 Specific end use(s)

Not applicable

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

Engineering measures

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



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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 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.



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Environmental Controls: No data available

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:

Physical state:	liquid
Form:	liquid
Color:	Red
Odor:	Characteristic
pH:	Not applicable
Freezing point:	not determined
Boiling Point:	not determined
Flash Point:	212 °C
Evaporation Rate:	Not applicable for mixtures
Flammability (solid, gas):	not determined
Flammability Limit - Upper (%)-:	Not applicable for mixtures
Flammability Limit - Lower (%)-:	Not applicable for mixtures
Vapor pressure:	Not applicable for mixtures
Relative vapor density:	Not applicable for mixtures
Density:	0,84 g/cm ³ (15 °C)

Solubility(ies)

Solubility in Water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Not applicable for mixtures
Autoignition Temperature:	not determined
Decomposition Temperature:	not determined
Kinematic viscosity:	34 mm 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.

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 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)

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

alkarylamine, longchained LD 50 (Rat): > 5.001 mg/kg (OECD 423)

succinic acid derivative LD 50 (Rat, Male): > 10.000 mg/kg

Dermal

Product:

ATEmix: 202.669 mg/kg

Specified substance(s)

Alkyl thio phosphite LD 50 (Rat): > 501 mg/kg

Inhalation

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

Skin corrosion/irritation

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

Specified substance(s)

alkarylamine, longchained OECD 404 (Rabbit):
Not irritant.

phenol derivative OECD 404 (Rabbit):
Not irritant.

Serious eye damage/eye irritation

Product:



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Specified substance(s)

alkarylamine, longchained

phenol derivative

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

OECD 405 (Rabbit):

Not irritant.

OECD 405 (Rabbit):

Not irritant.

Respiratory or skin Sensitization:

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)

alkarylamine, longchained

phenol derivative

No sensitizing effect (guinea pig); OECD 406

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 Hazard

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

Acute toxicity

Product:

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

Fish

Specified substance(s)
base oil, low viscous

LC 50 (Fish, 96 h): > 100 mg/l (OECD 203)

alkarylamine, longchained

LC 50 (Fish, 96 h): > 101 mg/l (OECD 203)

Alkyl thio phosphite

LC 50 (Fish, 96 h): 1,5 mg/l (OECD 203)

succinic acid derivative

LC 50 (Fish, 96 h): > 100 mg/l (OECD 203)

Aquatic Invertebrates

Specified substance(s)

alkarylamine, longchained

EC 50 (Water Flea, 48 h): > 101 mg/l (OECD 202)

phenol derivative

EC 50 (Water Flea, 48 h): > 101 mg/l

Alkyl thio phosphite

EC 50 (Water Flea, 48 h): 0,09 mg/l (OECD 202)

succinic acid derivative

EL50 (Water Flea, 48 h): 9,5 mg/l (OECD 202)

Chronic Toxicity

Product:

Based on available data, the classification criteria are 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)

phenol derivative

NOEC (Water Flea, 21 d): >= 1 mg/l

Alkyl thio phosphite

NOEC (Water Flea, 21 d): 0,14 mg/l

Toxicity to Aquatic Plants

Specified substance(s)

base oil, low viscous

NOEC (Alga, 72 h): > 100 mg/l (OECD 201)

alkarylamine, longchained

EC 50 (Alga, 72 h): 600 mg/l (OECD 201)



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Alkyl thio phosphite

EC 50 (Alga, 72 h): 0,31 mg/l

succinic acid derivative

EL50 (Alga, 72 h): > 100 mg/l (OECD 201)

12.2 Persistence and Degradability

Biodegradation

Product:

Not applicable for mixtures

Specified substance(s)
alkarylamine, longchained

1 % (28 d, OECD 301B) Not easily biodegradable

12.3 Bioaccumulative potential

Product:

Not applicable for mixtures

Specified substance(s)
alkarylamine, longchained

Bioconcentration Factor (BCF): 1.584

12.4 Mobility in soil

Product:

Not applicable for mixtures

12.5 Results of PBT and vPvB assessment

The product does not contain any substances fulfilling the PBT/vPvB criteria.

12.6 Other adverse effects

Harmful to aquatic life with long lasting effects.

Water Hazard Class (WGK):

WGK 1: slightly water-endangering.

13. Disposal considerations

13.1 Waste treatment methods

General information:

Dispose in accordance with all applicable regulations.

Disposal methods:

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

List of Waste (LoW) Codes

13 02 05*: mineral-based non-chlorinated engine, gear and lubricating oils



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14 Transport information

ADR/RID

14.1 UN number or ID number:	--
14.2 UN Proper Shipping Name:	--
14.3 Transport Hazard Class(es)	
Class:	Non-dangerous goods
Label(s):	--
Hazard No. (ADR):	--
Tunnel restriction code:	--
14.4 Packing Group:	--
14.5 Environmental hazards:	--
14.6 Special precautions for user:	--

IMDG

14.1 UN number or ID 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 or ID 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:	--

Transport in bulk according to Annex II of MARPOL 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



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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

15.2 Chemical safety assessment No Chemical Safety Assessment has been carried out.

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.
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.

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



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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.