



Trade name: ZF Lifeguard eFluid 1

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

1.1 Product identifier

Trade name: ZF Lifeguard eFluid 1

Product code: 5961.308.181

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

Identified uses Transmission fluids

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 19 240 Information in German and English

2. Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Asp. Tox. 1, H304

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket



Signal word	DANGER
Hazard Statements	H304 – May be fatal if swallowed and enters airways
Precautionary Statements	
General	P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P103 - Read carefully and follow all instructions.
Prevention	Not applicable.
Response	P301 + P310 – IF SWALLOWED: Immediately call a POISON CENTER/doctor P331 – Do NOT induce vomiting
Storage	Not applicable
Disposal	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Contains	Distillates (petroleum), hydrotreated heavy paraffinic Distillates (petroleum), hydrotreated light paraffinic
Supplemental label elements	Not applicable.
UFI Code	PG40-G0NR-200S-7EGA
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Not applicable.

2.3 Other hazards



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

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

Other hazards which do not result in classification Hazard of slipping on spilled product.

3. Composition/information on ingredients

3.2 Mixtures

Product/substance	Identifiers	% (w/w)	Classification	Type
Distillates (petroleum), hydrotreated heavy paraffinic	REACH #: 01-2119484627-25 EC: 265-157-1 CAS: 64742-54-7 Index: 649-467-00-8	$\geq 50 - \leq 75$	Asp. Tox. 1, H304	[1]
Distillates (petroleum), hydrotreated light paraffinic	REACH #: 01-2119487077-29 EC: 265-158-7 CAS: 64742-55-8	$\geq 25 - \leq 50$	Asp. Tox. 1, H304	[1]
mineral oil	--	≤ 3	Asp. Tox. 1, H304	[1]

See Section 16 for the full text of the H statements declared above.

Additional information

Mineral oil of petroleum origin Product containing mineral oil with less than 3% DMSO extract as measured by IP 346

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type [1] Substance classified with a health or environmental hazard

4. First aid measures

4.1 Description of first aid measures

Eye contact

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

	minutes. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Wash out mouth with water. Remove dentures if any. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. The exposed person may need to be kept under medical surveillance for 48 hours.
Protection of First-aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

Over-exposure signs/symptoms

Eye contact	No specific data.
Inhalation	No specific data.
Skin contact	Adverse symptoms may include the following: irritation dryness cracking
Ingestion	Adverse symptoms may include the following: nausea or vomiting

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	No specific treatment.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:	Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media:	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	carbon monoxide carbon dioxide Silicon Dioxide nitrogen oxides phosphorus oxides sulfur oxides Hydrogen sulfide Mercaptans



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

5.3 Advice for firefighters

Special protective equipment for fire-fighters:

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

General information

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

7. Handling and storage

7.1 Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material,



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Shelf life: 36 months. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations Not available.

Industrial sector specific solutions Not available.

8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits No exposure limit value known.

Reportable hazardous constituent(s) contained in UVCB and/or multi-constituent substance(s) complying with the classification criteria and/or with an exposure limit (OEL) No exposure limit value known.

Recommended monitoring procedures If this product contains ingredients with exposure limits, personal, workplace



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Advisory OEL

Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined)

DNELs/DMELs

Product/substance	Type	Exposure	Value	Population	Effects
Distillates (petroleum), hydrotreated heavy paraffinic	DNEL	Long term Inhalation	5.58 mg/m ³	Workers	Local
	DNEL	Long term Oral	0.74 mg/kg bw/day	General Population	Systemic
	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.73 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	0.74 mg/kg bw/day	General Population	Systemic
	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic
	DNEL	Long term	1.19 mg/m ³	General	Local



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

	DNEL	Inhalation Long term Inhalation	2.73 mg/m³	Population Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m³	Workers	Local
Distillates (petro- leum), hy- drotreated light paraf- finic	DNEL	Long term Inhalation	5.4 mg/m³	Workers	Local
	DNEL	Long term Inhalation	1.2 mg/m³	General Population	Local
	DNEL	Long term Oral	0.74 mg/ kg bw/day	General Population	Systemic
	DNEL	Long term Dermal	0.97 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.19 mg/m³	General Population	Local
	DNEL	Long term Inhalation	2.73 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m³	Workers	Local

PNECs

Product/ingredient name	Compartment Detail	Name
Distillates (petroleum), hydrotreated heavy paraffinic	Secondary Poisoning	9.33 mg/kg
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14-tert-alkyl	Fresh water	2.4 µg/l
	Marine water Fresh water sediment Marine water sediment Soil Sewage Treatment Plant Secondary Poisoning	240 ng/l 12.9 µg/kg dwt 1.29 µg/kg dwt 1.17 µg/kg dwt 24.33 mg/l 10 mg/kg

8.2 Exposure controls



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

Appropriate engineering controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. EN 166

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Hydrocarbon-proof gloves
nitrile rubber
Fluorinated rubber
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. In case of prolonged contact with the product, it is recommended to wear gloves



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry into confined spaces. In case of inadequate ventilation wear respiratory protection: Type A/P1 Warning! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

SAFETY DATA SHEET
 Conforms to Regulation (EC) No. 1907/2006 (REACH)



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

The conditions of measurement of all properties are at standard temperature (20°C / 68°F) and pressure (1013 hPa) unless otherwise indicated

Appearance	
Physical state	liquid
Colour:	Yellow
Odour:	Characteristic
Odor threshold	Not available
pH:	Not applicable
Melting point/freezing point	Technically not possible to measure

Initial boiling point and boiling range	280°C	
Melting point/freezing point	Technically not possible to measure	
Flash point	215°C	Open Cup [ASTM D 92]
Evaporation rate	Not available	
Flammability (solid, gas)	Not available	
Upper flammability or explosive limits	7%	
Lower flammability or explosive limits	0.9%	
Vapour pressure	<0.013 kPa [room temperature] Not applicable. [50°C]	
Vapour density	>2 [Air = 1]	

Density	0.833 to 0.839 g/cm ³ [15°C]	[ISO 12185]
Relative density	0.833 to 0.839	[ISO 12185]
Solubility(ies)	Insoluble in the following materials: cold water and hot water	
Miscible with water	No	



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

Partition coefficient: n-octanol/water	Not available	
Autoignition temperature	Not available	
Decomposition temperature	Not available	
Viscosity, kinematic	18 to 19.6 mm ² /s (40°C)	ASTM D 445
Explosive properties	Not available	
Oxidizing properties	Not applicable.	
Median particle size	Not applicable	

9.2 Other information

No other relevant physical and chemical parameters for the safe use of the product

10. Stability and reactivity

- 10.1 Reactivity** No specific test data related to reactivity available for this product or its ingredients
- 10.2 Chemical stability:** Stable under recommended storage and handling conditions (see Section 7)
- 10.3 Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur
- 10.4 Conditions to avoid:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- 10.5 Incompatible materials:** Strong oxidising agents.
- 10.6 Hazardous decomposition products:** carbon monoxide
 carbon dioxide
 Silicon Dioxide
 nitrogen oxides



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

phosphorus oxides
 sulfur oxides
 Hydrogen sulfide
 Mercaptans

11. Toxicological information

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

Acute toxicity

Product/sub-stance	Result	Species	Dose	Exposure	Test
Distillates (petroleum), hydrotreated heavy paraffinic	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5 mg/l	4 hours	OECD 403 Read across
	LD50 Dermal	Rabbit - Male, Female	>5000 mg/kg	--	OECD 402 Read across
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	--	OECD 401 Read across
Distillates (petroleum), hydrotreated light paraffinic	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours	OECD 403
	LD50 Dermal	Rabbit	>5000 mg/kg	--	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	--	OECD 420

Conclusion/Summary

Based on available data, the classification criteria are not met

Acute toxicity estimates
 N/A

Irritation/Corrosion

Conclusion/Summary
 Skin:

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

Eyes:

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

Respiratory:

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

Sensitization



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

Conclusion/Summary

Skin:

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

Respiratory:

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

Mutagenicity

Conclusion/Summary

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

Carcinogenicity

Conclusion/Summary

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

Reproductive toxicity

Conclusion/Summary

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

Teratogenicity

Conclusion/Summary

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

Specific target organ toxicity (single exposure)

Conclusion/Summary

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

Specific target organ toxicity (repeated exposure)

Conclusion/Summary

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

Aspiration hazard

Product/substance	Result
Distillates (petroleum), hydrotreated heavy paraffinic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated light paraffinic	ASPIRATION HAZARD - Category 1
mineral oil	ASPIRATION HAZARD - Category 1

Conclusion/Summary

Based on available data, the classification criteria are met.

Information on the likely routes of exposure

Not available

Potential acute health effects

Eye contact

No known significant effects or critical



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

	hazards
Inhalation	No known significant effects or critical hazards
Skin contact	Defatting to the skin. May cause skin dryness and irritation
Ingestion	May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	No specific data
Inhalation	No specific data
Skin contact	Adverse symptoms may include the following: irritation dryness cracking
Ingestion	Adverse symptoms may include the following: nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure	
Potential immediate effects	Not available
Potential delayed effects	Not available

Long term exposure	
Potential immediate effects	Not available
Potential delayed effects	Not available

Potential chronic health effects Not available

Conclusion/Summary Not available

General No known significant effects or critical hazards.



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

Carcinogenicity	No known significant effects or critical hazards
Mutagenicity	No known significant effects or critical hazards
Reproductive toxicity	No known significant effects or critical hazards

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.

12. Ecological information

12.1 Toxicity

Product/substance	Result	Species	Exposure	Test
Distillates (petroleum), hydrotreated heavy paraffinic	Acute EC50 >100 mg/l	Algae-Pseudokirchnerella Subcapitata	72 hours	OECD 201
	Acute EC50 >10000 mg/l	Crustaceans - Daphnia Magna	48 hours	OECD 202
	Chronic NOEL >100 mg/l	Algae-Pseudokirchneriella Subcapitata	72 hours	OECD 201
	Chronic NOEL >1000 mg/l	Crustaceans - Daphnia magna	21 days	--



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

Distillates (petroleum), hydrotreated light paraffinic	Acute EC50 >100 mg/l	Algae - Pseudokirchnerella subcapitata	48 hours	OECD 201
	Acute EC50 >10000 mg/l	Daphnia - Daphnia magna	48 hours	OECD 202
	Chronic NOEL 10 mg/l	Daphnia - Daphnia magna	21 days	OECD 211
	Chronic NOEL >1000 mg/l	Fish - Oncorhynchus mykiss	21 days	--

12.2 Persistence and degradability

Conclusion/Summary Not available

Product/substance	Test	Result	Inoculum
Distillates (petroleum), hydrotreated heavy paraffinic	OECD 301F	31 % - Not readily - 28 days	Activated sludge

Conclusion/Summary Not available.

Product/substance	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), hydrotreated heavy paraffinic	--	--	Not readily

12.3 Bioaccumulative potential

Product/substance	LogKow	BCF	Potential
Distillates (petroleum), hydrotreated heavy paraffinic	>4	--	high

12.4 Mobility in soil

Soil/water partition coefficient (KOC) Not available

Mobility Not available



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

Mobility in soil

Given its physical and chemical characteristics, the product generally shows low soil mobility. The product is insoluble and floats on water. Loss by evaporation is limited.

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.

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 known significant effects or critical hazards.

13. Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste

Yes.
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

suggestions: 13 02 05 *

Packaging
 Methods of disposal

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions

This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

	ADR/RID	ADN	IMDG	ICAO/IATA
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated
14.2 UN proper shipping name	--	--	--	--
14.3 Transport hazard class(es)	--	--	--	--
14.4 Packing group	--	--	--	--
14.5 Environmental hazards	No	No	No	No

14.6 Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not available

15. Regulatory information

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

SAFETY DATA SHEET
Conforms to Regulation (EC) No. 1907/2006 (REACH)



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals Not listed

Montreal Protocol Not listed

Stockholm Convention on Persistent Organic Pollutants Not listed

Rotterdam Convention on Prior Informed Consent (PIC) Not listed

UNECE Aarhus Protocol on POPs and Heavy Metals Not listed

LU - Luxembourg prohibited chemicals in the workplace Not listed

Inventory list

Australia inventory (AIIIC) All components are listed or exempted

Canada inventory (DSL/NDL) All components are listed or exempted

China inventory (IECSC) All components are listed or exempted

Europe inventory (EC) All components are listed or exempted

Japan inventory (CSCL) All components are listed or Exempted

Japan inventory (ISHL) All components are listed or Exempted

New Zealand Inventory of Chemicals (NZIoC) All components are listed or exempted

Philippines inventory (PICCS) All components are listed or exempted

Korea inventory (KECI) All components are listed or exempted

Taiwan Chemical Substances Inventory (TCSI) All components are listed or exempted

Thailand inventory Not determined



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

Turkey inventory	Not determined
United States inventory (TSCA 8b)	All components are listed or exempted
Vietnam inventory	Not determined

The information stated in this section relates solely to the conformity of the chemical product with the countries Inventories. The information used to confirm the inventory status of this product may be based on additional data to the chemical composition shown in Section 3. Other regulations may apply for importation or marketing authorizations.

15.2 Chemical safety assessment

This product is classified as H304 «May be fatal if swallowed and enters airways». The risk relates to potential for aspiration. The risk arising from aspiration hazard is solely related to the physico-chemical properties of the substance. The risk can therefore be controlled by implementing risk management measures tailored to this specific hazard. An exposure scenario is not required.

16. Other information

Abbreviations and acronyms	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level DMEL = Derived Minimal Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic vPvB = Very Persistent and Very Bioaccumulative PNEC = Predicted No Effect Concentration LC50 = Median lethal concentration LD50 = Median lethal dose OEL = Occupational Exposure Limit VOC = Volatile Organic Compound UVCB Substance of unknown or Variable composition, Complex reaction products or Biological material NOEC No Observed Effect Concentration QSAR = Quantitative Structure–Activity Relationship
----------------------------	--

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
----------------	---------------



Trade name: ZF Lifeguard eFluid 1

ZF Aftermarket

Asp. Tox. 1, H304	Calculation method
-------------------	--------------------

Full text of abbreviated H statements

H304 May be fatal if swallowed and enters airways

Full text of classifications [CLP/GHS]

Asp. Tox. 1 ASPIRATION HAZARD - Category 1

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

End of the safety data sheet