



**Product name: ZF eGrease 1**

ZF Aftermarket

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

**1.1 Product identifier**

Product name: ZF eGrease 1

Product code: 5961.308.268

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

Use of the substance/mixture: Grease for industrial applications.

**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) 89 19 240 (Emergency Call - Information in German and in English)

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**2. Hazards identification**

**2.1 Classification of the substance or mixture**

**Product definition** Mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**  
Aquatic Chronic 3, H412

See Section 16 for the full text of the H statements declared above.  
See sections 11 and 12 for more detailed information on health effects and symptoms and environmental hazards.

**2.2 Label elements**

Hazard statements: H412 - Harmful to aquatic life with long lasting effects.



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Signal word: No signal word.

Precautionary statements:

**Prevention:** P273 - Avoid release to the environment.

**Response:** Not applicable.

**Storage:** Not applicable.

**Disposal:** P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** Not applicable.

**Supplemental label elements:** Contains Reaction product of ammonium molybdate and C12-C24-diethoxylated alkylamine (1:5-1:3) and Isodecyl diphenyl phosphite. May produce an allergic reaction.

**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings:** Not applicable.

**Tactile warning of danger:** Not applicable.

**2.3 Other hazards**

**Results of PBT and vPvB assessment** Product does not meet the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII.



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**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII  
 Other hazards which do not result in classification**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Defatting to the skin.

Note: High Pressure Applications Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency.

See 'Notes to physician' under First-Aid Measures, Section 4 of this Safety Data Sheet.

### 3. Composition/information on ingredients

#### 3.2 Mixtures

Highly refined mineral oil and additives. Thickening agent.

#### Classification

| Product/ingredient name   | Identifiers   | %     | Regulation (EC) No. 1272/2008 [CLP]  | Type |
|---|---|-------|--|------|
| Reaction product of ammonium molybdate and C12-C24-diethoxylated alkylamine (1:5-1:3) | REACH #: 01-0000016000-92<br>EC: 412-780-3<br>Index: 042-004-00-5 | <1    | Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411             | [1]  |
| Reaction products of triphenyl phosphite and isodecanol (1:1)                         | REACH #: 01-2119968254-31<br>EC: 701-341-4<br>CAS: -              | <1    | Skin Sens. 1, H317<br>STOT RE 2, H373<br>Aquatic Chronic 2, H411                                       | [1]  |
| Sulfuric acid, zinc salt (1:1), monohydrate   | EC: 231-793-3<br>CAS: 7446-19-7<br>Index: 030-006-00-9            | <1    | Acute Tox. 4, H302<br>Eye Dam. 1, H318<br>Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, H410 (M=1) | [1]  |
| 2,6-di-tert-butyl-4-nonylphenol   | REACH #: 01-2120759723-46<br>EC: 224-320-7<br>CAS: 4306-88-1      | ≤ 0.3 | Skin Sens. 1B, H317<br>Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, H410 (M=1)                    | [1]  |

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

Type



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[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

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## 4. First aid measures

### 4.1 Description of first aid measures

Eye contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

Skin contact:

Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

Inhalation:

If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Ingestion:

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Get medical attention if symptoms occur.

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

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

#### Potential acute health effects

##### Inhalation

No known significant effects or critical hazards.



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|   |  |
|---|--|
| <b>Ingestion</b>  | No known significant effects or critical hazards.  |
| <b>Skin contact</b>   | Defatting to the skin. May cause skin dryness and irritation.                                |
| <b>Eye contact</b>  | No known significant effects or critical hazards.  |
| <b>Delayed and immediate effects as well as chronic effects from short and long-term exposure</b> |  |
| <b>Inhalation</b>   | Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation. |
| <b>Ingestion</b>  | Ingestion of large quantities may cause nausea and diarrhoea.                                |
| <b>Eye contact</b>  | Potential risk of transient stinging or redness if accidental eye contact occurs.            |

#### **4.3 Indication of any immediate medical attention and special treatment needed**

Notes to physician:

Treatment should in general be symptomatic and directed to relieving any effects.

Note: High Pressure Applications  
Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discoloured and extremely painful with extensive subcutaneous necrosis.

Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimise tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

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## **5. Firefighting measures**

### **5.1 Extinguishing media**

Suitable extinguishing media:

Use foam or all-purpose dry chemical to extinguish.



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Unsuitable extinguishing media: Do not use water jet. The use of a water jet may cause the fire to spread by splashing the burning product.

## 5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture: No specific fire or explosion hazard..  
Hazardous combustion products: Combustion products may include the following:  
carbon oxides (CO, CO<sub>2</sub>) (carbon monoxide, carbon dioxide)  
metal oxide/oxides

## 5.3 Advice for firefighters

Special precautions for fire-fighters: No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

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 firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

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## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Contact emergency personnel. No action shall be taken involving any personal risk or without



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suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Floors may be slippery; use care to avoid falling. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment.

For emergency responders:

Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

## **6.2 Environmental precautions**

Environmental precautions:

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

## **6.3 Methods and material for containment and cleaning up**

Small spill:

Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

Large spill:

Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and



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place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. If emergency personnel are unavailable, contain spilt material. Suction or scoop the spill into appropriate disposal or recycling vessels, then cover spill area with oil absorbent. Dispose of via a licensed waste disposal contractor.

#### **6.4 Reference to other sections**

See Section 1 for emergency contact information.

See Section 5 for firefighting measures.

See Section 8 for information on appropriate personal protective equipment.

See Section 12 for environmental precautions.

See Section 13 for additional waste treatment information.

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## **7. Handling and storage**

### **7.1 Precautions for safe handling**

Protective measures:

Put on appropriate personal protective equipment. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid contact of spilt material and runoff with soil and surface waterways. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse container. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. 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**





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Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep away from heat and direct sunlight. 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. Store and use only in equipment/containers designed for use with this product. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

**7.3 Specific end use(s)**

Recommendations: See section 1.2 and Exposure scenarios in annex, if applicable.

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**8. Exposure controls/personal protection**

**8.1 Control parameters**

Occupational exposure limits  
No exposure limit value known.

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

Recommended monitoring procedures 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



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hazardous substances will also be required.

**Derived No Effect Level**

No DNELs/DMELs available.

**Predicted No Effect Concentration**

No PNECs available

**8.2 Exposure controls**

**Appropriate engineering controls**

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated.

Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

**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. Ensure that eyewash stations and safety showers are close to the workstation location.

**Respiratory protection**

Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure. In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the



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conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

**Eye/face protection**

Safety glasses with side shields.

**Skin protection**

**Hand protection**

**General Information:**

Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. The correct choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Most gloves provide protection for only a limited time before they must be discarded and replaced (even the best chemically resistant gloves will break down after repeated chemical exposures).

Gloves should be chosen in consultation with the supplier / manufacturer and taking account of a full assessment of the working conditions.

Recommended: Nitrile gloves.

**Breakthrough time:**

Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are taken into account. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type. Our recommendations on the selection of gloves are as follows:

**Continuous contact:**

Gloves with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable gloves can be obtained.

If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to.

**Glove Thickness:**

For general applications, we recommend gloves with a thickness typically greater than 0.35 mm. It should be emphasised that glove thickness is not

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necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times. Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

### **Skin and body:**

Use of protective clothing is good industrial practice.

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. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

### **Refer to standards:**

Respiratory protection: EN 529  
Gloves: EN 420, EN 374  
Eye protection: EN 166  
Filtering half-mask: EN 149  
Filtering half-mask with valve: EN 405  
Half-mask: EN 140 plus filter  
Full-face mask: EN 136 plus filter  
Particulate filters: EN 143



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Gas/combined filters: EN 14387

**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**

Physical state: Grease  
 Colour: Brown [Dark]  
 Odour: Not available.  
 Odour threshold: Not available.  
 pH: Not available.

|   |                 |   |
|---|-----------------|---|
| Melting point/freezing point            | Not available.  |   |
| Initial boiling point and boiling range | Not available.  |   |
| Flash point                             | 268°C (514.4°F) | Open cup [Estimated. Based on Lubricants - Base Oils] |
| Evaporation rate                        | Not available.  |   |
| Flammability (solid, gas)               | Not available.  |   |
| Lower and upper explosion limit         | Not available.  |   |
| Vapour pressure                         | Not available.  |   |
| Relative vapour density                 | Not applicable. |   |
| Relative density                        | Not available.  |   |
|   |                 |   |



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|  |   |  |
|--|---|--|
| Density                                | <1000 kg/m <sup>3</sup> (<1 g/cm <sup>3</sup> ) at 20°C |  |
| Solubility(ies)                        | insoluble in water                                      |  |
| Partition coefficient: n-octanol/water | Not available.  |  |
| Auto-ignition temperature              | Not available.  |  |
| Decomposition temperature              | Not available.  |  |
| Viscosity                              | Not available.  |  |
| Explosive properties                   | Not available.  |  |
| Oxidising properties                   | Not available.  |  |
| <b>Particle characteristics</b>        | Not available.  |  |
| Median particle size                   |   |  |

**9.2 Other information**  
 No additional information.

**10. Stability and reactivity**

**10.1 Reactivity** No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

**10.2 Chemical stability** The product is stable.

**10.3 Possibility of hazardous reactions** Under normal conditions of storage and use, hazardous reactions will not occur.  
 Under normal conditions of storage and use, hazardous polymerisation will not occur.

**10.4 Conditions to avoid** No specific data.



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**10.5 Incompatible materials** Reactive or incompatible with the following materials: oxidising materials.

**10.6 Hazardous decomposition products** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**11. Toxicological information**

**11.1 Information on toxicological effects**

Acute toxicity estimates

| Product/ingredient name                     | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| isodecyl diphenyl phosphite                 | 2500         | N/A            | N/A                      | N/A                         | N/A                                 |
| Sulfuric acid, zinc salt (1:1), monohydrate | 500          | N/A            | N/A                      | N/A                         | N/A                                 |

Information on the likely routes of exposure

Routes of entry anticipated: Dermal, Inhalation, Eyes.

**Potential acute health effects**

Inhalation

No known significant effects or critical hazards.

Ingestion

No known significant effects or critical hazards.

Skin contact

Defatting to the skin. May cause skin dryness and irritation.

Eye contact

No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation

No specific data.



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|              |  |
|--------------|--|
| Ingestion    | No specific data.  |
| Skin contact | Adverse symptoms may include the following:<br>irritation<br>dryness<br>cracking |
| Eye contact  | No specific data.  |

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

|             |  |
|-------------|--|
| Inhalation  | Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation. |
| Ingestion   | Ingestion of large quantities may cause nausea and diarrhoea.                                |
| Eye contact | Potential risk of transient stinging or redness if accidental eye contact occurs.            |

**Potential chronic health effects**

|                       |   |
|-----------------------|---|
| General               | No known significant effects or critical hazards. |
| Carcinogenicity       | No known significant effects or critical hazards. |
| Mutagenicity          | No known significant effects or critical hazards. |
| Developmental effects | No known significant effects or critical hazards. |
| Fertility effects     | No known significant effects or critical hazards. |

**11.2 Information on other hazards**

11.2.1 Endocrine disrupting properties  
Not available.

Remarks - Endocrine Not available.



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**Product name: ZF eGrease 1**disruptor - Health  
11.2.2 Other information  
Not available.

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**12. Ecological information****12.1 Toxicity**

Environmental hazards Harmful to aquatic life with long lasting effects.

**12.2 Persistence and degradability**

Not expected to be rapidly degradable.

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

Soil/water partition coefficient (KOC) Not available.

Mobility Non-volatile. Grease insoluble in water.

**12.5 Results of PBT and vPvB assessment**

Product does not meet the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII.

**12.6 Other adverse effects**

No known significant effects or critical hazards.

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**13. Disposal considerations****13.1 Waste treatment methods**Product Where possible, arrange for product to be recycled. Dispose of via an authorised person/licensed waste disposal contractor in accordance with local regulations.  
Methods of disposal

Hazardous waste Yes.

**European waste catalogue (EWC)**

Waste code 12 01 12\*

Waste designation spent waxes and fats



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However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

### Packaging

|                                |   |
|--------------------------------|---|
| Methods of disposal            | Where possible, arrange for product to be recycled. Dispose of via an authorised person/licensed waste disposal contractor in accordance with local regulations.  |
| Waste code                     | 15 01 10*   |
| European waste catalogue (EWC) | packaging containing residues of or contaminated by dangerous substances  |
| Special precautions            | This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Never weld, solder or braze empty containers. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. |
| References                     | Commission 2014/955/EU<br>Directive 2008/98/EC  |

## 14 Transport information

### 14.1 UN number or ID number

|      |               |
|------|---------------|
| ADN  | Not regulated |
| ADR  | Not regulated |
| RID  | Not regulated |
| IMDG | Not regulated |
| IATA | Not regulated |

### 14.2 UN proper shipping name

ADN --



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ADR --  
RID --  
IMDG --  
IATA --

**14.3 Transport hazard class(es)**

ADN --  
ADR --  
RID --  
IMDG --  
IATA --

**14.4 Packing group**

ADN --  
ADR --  
RID --  
IMDG --  
IATA --

**14.5 Environmental hazards**

ADN No.  
ADR No.  
RID No.  
IMDG No.  
IATA No.

**Additional information**

ADN --  
ADR --  
RID --  
IMDG --  
IATA --

**14.6 Special precautions for user**

Not available

**14.7 Maritime transport in bulk according to IMO instruments**

Not available.

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**15. Regulatory information**

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

**EU Regulation (EC) No. 1907/2006 (REACH)  
Annex XIV - List of substances subject to authorization**

Annex XIV

None of the components are listed.



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Substances of very high concern                      None of the components are listed.

Annex XVII – Restrictions on the  
manufacture, placing on the market  
and use of certain dangerous  
substances, mixtures and articles                      Not applicable.

**Other regulations**

REACH Status                      The company, as identified in Section  
1, sells this product in the EU in  
compliance with the current  
requirements of REACH.

United States inventory  
(TSCA 8b)                      All components are listed or  
exempted.

Australia inventory (AICS)                      All components are listed or  
exempted.

Canada inventory                      At least one component is not listed in  
DSL but all such components are  
listed in NDSL.

China inventory (IECSC)                      All components are listed or  
exempted.

Japan inventory (ENCS)                      At least one component is not listed.

Korea inventory (KECI)                      At least one component is not listed

Philippines inventory (PICCS)                      At least one component is not listed.

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

**Ozone depleting substances (1005/2009/EU)**

Not listed.

**Prior Informed Consent (PIC) (649/2012/EU)**

Not listed

**Persistent Organic Pollutants**

Not listed

**EU - Water framework directive - Priority substances**

None of the components are listed.

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**15.2 Chemical Safety Assessment**



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A Chemical Safety Assessment has been carried out for one or more of the substances within this mixture. A Chemical Safety Assessment has not been carried out for the mixture itself.

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**16. Other information**

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
CSA = Chemical Safety Assessment  
CSR = Chemical Safety Report  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
DPD = Dangerous Preparations Directive [1999/45/EC]  
DSD = Dangerous Substances Directive [67/548/EEC]  
EINECS = European Inventory of Existing Commercial chemical Substances  
ES = Exposure Scenario  
EUH statement = CLP-specific Hazard statement  
EWC = European Waste Catalogue  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
OECD = Organisation for Economic Co-operation and Development  
PBT = Persistent, Bioaccumulative and Toxic



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PNEC = Predicted No Effect Concentration  
RID = The Regulations concerning the  
International Carriage of Dangerous Goods by  
Rail  
RRN = REACH Registration Number  
SADT = Self-Accelerating Decomposition  
Temperature  
SVHC = Substances of Very High Concern  
STOT-RE = Specific Target Organ Toxicity -  
Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity -  
Single Exposure  
TWA = Time weighted average  
UN = United Nations  
UVCB = Complex hydrocarbon substance  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very  
Bioaccumulative  
Varies = may contain one or more of the  
following 64741-88-4 / RRN 01-2119488706-  
23, 64741-89-5 / RRN 01-2119487067-30,  
64741-95-3 / RRN 01-2119487081-40,  
64741-96-4 / RRN  
01-2119483621-38, 64742-01-4 / RRN 01-  
2119488707-21, 64742-44-5 / RRN  
01-2119985177-24, 64742-45-6, 64742-52-5  
/ RRN 01-2119467170-45, 64742-53-6 / RRN  
01-2119480375-34, 64742-54-7 / RRN 01-  
2119484627-25, 64742-55-8 / RRN  
01-2119487077-29, 64742-56-9 / RRN 01-  
2119480132-48, 64742-57-0 / RRN  
01-2119489287-22, 64742-58-1, 64742-62-7  
/ RRN 01-2119480472-38, 64742-63-8,  
64742-65-0 / RRN 01-2119471299-27,  
64742-70-7 / RRN 01-2119487080-42,  
72623-85-9 / RRN 01-2119555262-43,  
72623-86-0 / RRN 01-2119474878-16,  
72623-87-1 / RRN 01-2119474889-13

**Full text of abbreviated H-  
Statements**

|      |   |
|------|---|
| H302 | Harmful if swallowed.                       |
| H314 | Causes severe skin burns and eye<br>damage. |
| H315 | Causes skin irritation.                     |
| H317 | May cause an allergic skin reaction.        |



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|      |  |
|------|--|
| H318 | Causes serious eye damage.   |
| H319 | Causes serious eye irritation.                                     |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| 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.                   |

**Full text of classifications  
[CLP/GHS]**

|                   |   |
|-------------------|---|
| Acute Tox. 4      | ACUTE TOXICITY (oral) - Category 4                              |
| Aquatic Acute 1   | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1                  |
| Aquatic Chronic 1 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1                 |
| Aquatic Chronic 2 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2                 |
| Eye Dam. 1        | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1                  |
| Eye Irrit. 2      | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2                  |
| Skin Corr. 1A     | SKIN CORROSION/IRRITATION - Category 1A                         |
| Skin Irrit. 2     | SKIN CORROSION/IRRITATION - Category 2                          |
| Skin Sens. 1      | SKIN SENSITISATION - Category 1                                 |
| Skin Sens. 1B     | SKIN SENSITISATION - Category 1B                                |
| STOT RE 2         | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 |

**History**

|                                 |            |
|---------------------------------|------------|
| Date of issue/ Date of Revision | 09/12/2022 |
| Date of previous issue          | 12/05/2021 |

**Indicates information that has changed from previously issued version.**

Notice to reader All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet. The



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data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

**Identification of the substance or mixture**

|                    |                    |
|--------------------|--------------------|
| Product definition | Mixture            |
| Code               | 468715-DE03        |
| Product name       | Tribol GR 400-3 PD |

**Section 1: Title**

|                                      |  |
|--------------------------------------|--|
| Short title of the exposure scenario | General use of lubricants and greases in vehicles or machinery - Industrial  |
| List of use descriptors              | <b>Identified use name:</b> General use of lubricants and greases in vehicles or machinery-Industrial<br><b>Process Category:</b> PROC01, PROC08b, PROC09, PROC02<br><b>Sector of end use:</b> SU03<br><b>Subsequent service life relevant for that use:</b> No. |





**Product name: ZF eGrease 1**

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Processes and activities covered by the exposure scenario

**Environmental Release Category:**

ERC04, ERC07

**Specific Environmental Release**

**Category:** ATIEL-ATC SPERC 4.Biv1

Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.

**Section 2 Operational conditions and risk management measures**

Section 2.1 Control of worker exposure

No exposure scenario is presented because the product is not classified for Human Health

**Contributing scenarios:** Operational conditions and risk management measures

**Section 2.2: Control of environmental exposure**

Amounts used:

EU tonnage of risk determining substance 2.63E+3 Tonnes/year  
per year:

Frequency and duration of use:

Emission days 300

Environment factors not influenced by risk management:

Local freshwater dilution factor 10

Local marine water dilution factor 100

Other conditions affecting environmental exposure: Negligible wastewater emissions as process operates without water contact.

Release fraction to air (after typical onsite RMMs) 5.00E-05

5.00E-05

Release fraction to soil from process (after typical onsite RMMs) 0

Release fraction to wastewater from process (after typical onsite RMMs and before sewage treatment plan) Not available.

Technical conditions and measures at process level (source) to prevent release: Common practices vary across sites thus conservative process release estimates used.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil: Prevent discharge of undissolved substance to or recover from onsite wastewater.

User sites are assumed to be provided with oil/water separators and waste water

## SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH),  
Annex II - Germany



### Product name: ZF eGrease 1

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|  |   |
|--|---|
| Organisational measures to prevent/limit release from site:  | to be discharged via a sewage treatment plant<br>Do not apply industrial sludge to natural soils.<br>Sewage sludge should be incinerated, contained or reclaimed. |
| Conditions and measures related to sewage treatment plant:   |   |
| Estimated substance removal from wastewater via on-site sewage treatment   | Not available.  |
| Assumed domestic sewage treatment plant flow rate (m <sup>3</sup> /d)  | 2.00E+3   |
| Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal as product: | Not available.  |
| Conditions and measures related to external treatment of waste for disposal:                                     | External treatment and disposal of waste should comply with applicable local and/or national regulations.   |
| Conditions and measures related to external recovery of waste:   | External recovery and recycling of waste should comply with applicable local and/or national regulations.   |

### Section 3: Exposure estimation and reference to its source

Exposure estimation and reference to its source – Environment

Exposure assessment (environment): Used ECETOC TRA model (May 2010 release).

Exposure estimation and reference to its source – Workers

Exposure assessment (human): No exposure scenario is presented because the product is not classified for Human Health

### Section 4: Guidance to check compliance with the exposure scenario

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet.  
If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment



**Product name: ZF eGrease 1**

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is required. For further information see  
[www.ATIEL.org/REACH\\_GES](http://www.ATIEL.org/REACH_GES)  
No exposure scenario is presented  
because the product is not classified for  
Human Health

**Identification of the substance or mixture**

|                    |                    |
|--------------------|--------------------|
| Product definition | Mixture            |
| Code               | 468715-DE03        |
| Product name       | Tribol GR 400-3 PD |

**Section 1: Title**

Short title of the exposure scenario

General use of lubricants and greases in  
vehicles or machinery - Professional

List of use descriptors

Identified use name: General use of  
lubricants and greases in vehicles or  
machinery-Professional  
Process Category: PROC01, PROC02,  
PROC08a, PROC08b, PROC20  
Sector of end use: SU22  
Subsequent service life relevant for that  
use: No.  
Environmental Release Category: ERC09a,  
ERC09b  
Specific Environmental Release Category:  
ATIEL-ATC SPERC 9.Bp.v1

Processes and activities covered by the  
exposure scenario

Covers general use of lubricants and  
greases in vehicles or machinery in closed  
systems. Includes filling and draining of  
containers and operation of enclosed  
machinery (including engines) and  
associated maintenance and storage  
activities.

**Section 2 Operational conditions and risk management measures**

Section 2.1 Control of worker exposure

No exposure scenario is presented because the product is not classified for Human  
Health

Contributing scenarios: Operational conditions and risk management measures

**Section 2.2: Control of environmental exposure**

Amounts used:

EU tonnage of risk determining substance 5.39 Tonnes/year  
per year:

Frequency and duration of use:

Emission days 365

Environment factors not influenced by risk

## SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH),  
Annex II - Germany



### Product name: ZF eGrease 1

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management:

|  |  |
|--|--|
| Local freshwater dilution factor   | 10   |
| Local marine water dilution factor   | 100  |
| Other conditions affecting environmental exposure:   | Negligible wastewater emissions as process operates without water contact  |
| Release fraction to air (after typical onsite RMMs)  | 1.00E-04   |
| Release fraction to soil from process (after typical onsite RMMs)  | 1E-03  |
| Release fraction to wastewater from process (after typical onsite RMMs and before sewage treatment plan)         | Not available.   |
| Technical conditions and measures at process level (source) to prevent release:                                  | Common practices vary across sites thus conservative process release estimates used.   |
| Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:     | Prevent discharge of undissolved substance to or recover from onsite wastewater. User sites are assumed to be provided with oil/water separators and waste water to be discharged via a sewage treatment plant |
| Organisational measures to prevent/limit release from site:  | Do not apply industrial sludge to natural soils.<br>Sewage sludge should be incinerated, contained or reclaimed.   |
| Conditions and measures related to sewage treatment plant:   |  |
| Estimated substance removal from wastewater via on-site sewage treatment   | No data available yet  |
| Assumed domestic sewage treatment plant flow rate (m <sup>3</sup> /d)  | 2.00E+3  |
| Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal as product: | No data available yet  |
| Conditions and measures related to external treatment of waste for disposal:                                     | External treatment and disposal of waste should comply with applicable local and/or national regulations.  |
| Conditions and measures related to external recovery of waste:   | External recovery and recycling of waste should comply with applicable local and/or national regulations.  |

### Section 3: Exposure estimation and reference to its source

Exposure estimation and reference to its source – Environment

Exposure assessment (environment): Used ECETOC TRA model (May 2010 release).



**Product name: ZF eGrease 1**

Exposure estimation and reference to its  
source – Workers

Exposure assessment (human):

No exposure scenario is presented  
because the product is not classified for  
Human Health

**Section 4: Guidance to check compliance with the exposure scenario**

Environment

Guidance is based on assumed operating  
conditions which may not be applicable  
to all sites; thus, scaling may be  
necessary to define appropriate site-  
specific risk management measures.  
Further details on scaling and control  
technologies are provided in SPERC  
factsheet. If scaling reveals a condition of  
unsafe use (i.e., RCRs > 1), additional  
RMMs or a site-specific chemical safety  
assessment is required. For further  
information see

[www.ATIEL.org/REACH\\_GES](http://www.ATIEL.org/REACH_GES)

Health

No exposure scenario is presented  
because the product is not classified for  
Human Health