

# MATERIAL SAFETY DATA SHEET

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according to 1907/2006/EC, Article 31

Printing date 01.04.2009

Revision: 01.04.2009

## 1 Identification of substance

- **Product details**
- **Trade name** ZF LIFEGUARD FLUID 5
- **Article number:** 5501599
- **Application of the substance / the preparation** Automatic Transmission Fluid
- **Manufacturer/Supplier:**  
Deutsche Pentosin-Werke GmbH  
Industriestraße 39-43  
D-22880 Wedel  
Germany  
Phone ++49 4103 9134-0  
Fax ++49 4103 9134-71
- **Informing department:**  
Safety / Health / Environment  
msds-info@pentosin.com
- **Emergency information:** +49 4103 9134-0

## 2 Hazards identification

- **Hazard designation:** void
- **Information pertaining to particular dangers for man and environment**  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system**  
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.
- **GHS label elements** Void

## 3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of severely hydrogenated solvent neutral oils, synthetic hydrocarbons and additives.
- **Dangerous components:** Void
- **Additional information** For the wording of the listed risk phrases refer to section 16.

## 4 First aid measures

- **General information** No special measures required.
- **After inhaling** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact** The product is generally no skin irritant.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Call a doctor immediately.

## 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

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- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **Protective equipment:** Wear self-contained breathing apparatus.

## 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Do not allow to enter drainage system, surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Additional information:** No dangerous materials are released.

## 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Storage class 10** (VCI Germany)

## 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with critical values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Personal protective equipment**
- **General protective and hygienic measures** Use skin protection cream for preventive skin protection.
- **Breathing equipment:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye protection:** Protective goggles recommended during refilling.

## 9 Physical and chemical properties:

### · General Information

**Form:** Fluid  
**Colour:** Light brown  
**Smell:** Mineral-oil-like

### · Change in condition

**Melting point/Melting range:** -51°C (ISO 3016)  
**Boiling point/Boiling range:** Not determined

· **Flash point:** >220°C (ISO 2592)

· **Self-inflammability:** Product is not self-igniting.

· **Danger of explosion:** Product is not explosive.

### · Critical values for explosion:

**Lower:** 0.6 Vol %  
**Upper:** 6.5 Vol %

· **Density at 20°C** 0.850 g/cm<sup>3</sup> (ISO 12185)

### · Solubility in / Miscibility with

**Water:** Insoluble

· **pH-value:** Not applicable

### · Viscosity:

**kinematic at 40°C:** 38 mm<sup>2</sup>/s (ISO 3104)

### · Solvent content:

**Organic solvents:** 0.0 %

## 10 Stability and reactivity

- **Conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of composition:** None

## 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitization:** No sensitizing effect known.

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· **Additional toxicological information:**  
 When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

## 12 Ecological information:

- **Information about elimination (persistence and degradability):**
- **Other information:** The product is biodegradable.
- **General notes:**  
 Water hazard class 2 (Self-assessment): hazardous for water.  
 Do not allow product to reach ground water, water bodies or sewage system.

## 13 Disposal considerations

- **Product:**
- |                                   |   |
|-----------------------------------|---|
| · <b>European waste catalogue</b> |   |
| 13 00 00                          | OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19) |
| 13 02 00                          | waste engine, gear and lubricating oils   |
| 13 02 05                          | mineral-based non-chlorinated engine, gear and lubricating oils                                 |
- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

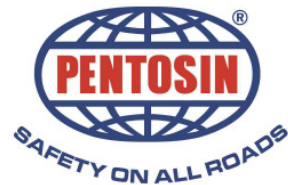
## 14 Transport information

- **Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**
  - **ADR/RID-GGVS/E Class:** -
  - **Maritime transport IMDG/GGVSea:**
  - **IMDG/GGVSea Class:** -
  - **Marine pollutant:** No
  - **Air transport ICAO-TI and IATA-DGR:**
  - **ICAO/IATA Class:** -
- **Transport/Additional information:** No dangerous goods in accordance with the above orders

## 15 Regulatory information

- **Designation according to EC guidelines:**  
 The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).

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- **National regulations:**
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

## 16 Other information:

*These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing data specification sheet:** Safety / Health / Environment

· **Contact:** Dr.G.Lukaschek

· **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*RID: Règlement internationale concernent le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*

*ICAO: International Civil Aviation Organization*

*ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)*

*GHS: Globally Harmonized System of Classification and Labelling of Chemicals*

· \* **Data compared to the previous version altered.**

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