

MATERIAL SAFETY DATA SHEET

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according to 1907/2006/EC, Article 31

Printing date 17.03.2008

Revision: 17.03.2008

1 Identification of substance

- **Product details**
- **Trade name** PENTOSIN FFL-4
- **Article number:** 1080900
- **Application of the substance / the preparation** Double Clutch Transmission Oil
- **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 / (0)4103 / 91 34-0

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**

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture consisting of the following components.
- **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** CO₂, extinguishing powder or water jet. Fight larger fires with water jet.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.

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· **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:** Prevent formation of aerosols.
- **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:** Use breathing protection only when aerosol or haze is formed.
- **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.
- **Eye protection:** Protective goggles recommended during refilling.

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9 Physical and chemical properties:

· General Information

Form:	Fluid
Colour:	Dark yellow
Smell:	Characteristic

· Change in condition

Melting point/Melting range: Not determined
Boiling point/Boiling range: Not determined

· **Flash point:** 220°C (ISO 2592)

· **Ignition temperature:** >250°C

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

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

· **Density at 20°C** 0.839 g/cm³ (ISO 12185)

· Solubility in / Miscibility with

Water: Insoluble

· Viscosity:

dynamic at -40°C: 7400 mPas (ASTM D2983)
kinematic at 100°C: 7 mm²/s (DIN 51 562 T1)

· 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.
- **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.

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- **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:**

- **European waste catalogue**

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 06	synthetic 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).
- **Special designation of certain preparations:**
Contains Alkoxylated long-chain alkyl amine, Thiadiazolderivat. May produce an allergic reaction.
- **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

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· **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 concernant 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)

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

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

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