

MATERIAL SAFETY DATA SHEET

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according to 1907/2006/EC, Article 31

Printing date 01.12.2014

Version number 12

Revision: 11.11.2014

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

· Trade name **Pentosin FFL-2**

· Article number: 1038900

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

No further relevant information available.

· Application of the substance / the mixture Double Clutch Transmission Fluid

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Deutsche Pentosin-Werke GmbH

Industriestraße 35-53

D-22880 Wedel

Germany

Phone ++49 4103 9134-0

Fax ++49 4103 9134-71

US Distributor

Fuchs Lubricants Co.

17050 Lathrop Avenue

Harvey, IL 60426

(708) 333-8900

(800) 255-3924 24 hr Emergency

· Informing department:

Safety / Health / Environment

msds-info@pentosin.com

· 1.4 Emergency telephone number: +49 4103 91 34-0

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

The product is not classified according to the CLP regulation.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC void

· Information concerning particular hazards for human 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.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008 Void

· Hazard pictograms Void

· Signal word Void

· Hazard statements Void

· Additional information:

Contains Ethanol, 2,2'-iminobis-, N-tallow alkylderivs.. May produce an allergic reaction.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description: Mixture of HC synthetic oils and synthetic hydrocarbons with additives

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· Dangerous components:

CAS: 72623-87-1 EINECS: 276-738-4	Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based Asp. Tox. 1, H304	< 75%
CAS: 64742-65-0 EINECS: 265-169-7	Destillate (Erdöl), lösungsmittelentwachste schwere paraffinhaltige Asp. Tox. 1, H304	< 2%

· **Additional information** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of 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** Seek immediate medical advice.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Do not allow to enter drainage system, surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**
No dangerous materials are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **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)
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **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.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures** Use skin protection cream for preventive skin protection.
- **Breathing equipment:** Not necessary if room is well ventilated.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
Under normal working conditions: Butyl rubber, NBR or PVC, regularly change!
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
- **Form:** Liquid
- **Colour:** Brown
- **Smell:** Characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.

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· Change in condition	
Melting point/Melting range:	-51 °C (ISO 3016)
Boiling point/Boiling range:	> 250 °C
· Flash point:	> 220 °C (DIN EN ISO 2592)
· Inflammability (solid, gaseous)	Not applicable.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Self-inflammability:	Product is not self-igniting.
· Danger of explosion:	Product is not explosive.
· Critical values for explosion:	
Lower:	Not determined.
Upper:	Not determined.
· Steam pressure:	Not determined.
· Density at 20 °C	0.841 g/cm ³ (ISO 12185)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not determined.
· Segregation coefficient (n-octanole/water):	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic at 40 °C:	36 mm ² /s (DIN EN ISO 3104)
· Solvent content:	
Organic solvents:	0.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** None

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: No irritant effect.

on the eye: No irritant effect.

Sensitisation: See Note Section 2

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.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

Other information: The product is biodegradable.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

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

Do not allow product to reach ground water, water bodies or sewage system.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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.

SECTION 14: Transport information

14.1 UN-Number

ADR, ADN, IMDG, IATA

Void

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· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	No dangerous goods in accordance with the above orders

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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.

- **Relevant phrases**
H304 May be fatal if swallowed and enters airways.
- **Department issuing data specification sheet:** Safety / Health / Environment
- **Contact:** Dr.G.Lukaschek
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
Asp. Tox. 1: Aspiration hazard, Hazard Category 1
- *** Data compared to the previous version altered.**