

MATERIAL SAFETY DATA SHEET

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according to 1907/2006/EC, Article 31

Printing date 01.10.2010

Revision: 01.10.2010

1 Identification of substance

- **Product details**
- **Trade name** *PENTOSIN BVO TYP 80*
- **Article number:** 1850900
- **Application of the substance / the preparation** *Functional Fluid/Assembly 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:** *Polyglykolether and Inhibitors*
- **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 or alcohol-resistant foam.

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- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **Special hazards caused by the material, its products of combustion or flue gases:**
Formation of poisonous gases is possible during heating or in fires.
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information** Cool endangered containers with water spray jet.

* 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:** See Section 8 for information on personal protection equipment.

* 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** The product is not flammable
- **Storage**
- **Requirements to be met by storerooms and containers:**
Suitable material for containers and pipes: High-grade steel.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** None.
- **Storage class** 12 (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.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **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. 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.

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- **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.

9 Physical and chemical properties:

· General Information

Form:	Fluid
Colour:	Light yellow
Smell:	Characteristic

· Change in condition

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

· **Flash point:** > 200°C (ISO 2592)

· **Ignition temperature:** > 350°C

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

· **Steam pressure at 20°C:** <0.0013 hPa

· **Density at 20°C** 0.99 g/cm³ (ISO 12185)

· **Solubility in / Miscibility with Water:** Insoluble

· **pH-value:** Not applicable

· **Viscosity:**
kinematic at 40°C: 80 mm²/s (ISO 3104)

· **Solvent content:**
Organic solvents: 0.0 %

10 Stability and reactivity

- **Conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:**
- **Dangerous reactions** Reacts with strong acids and oxidizing agents
- **Dangerous products of composition:** Carbon monoxide and carbon dioxide

11 Toxicological information

· Acute toxicity:

· LD/LC50 values relevant for classification:

Oral	LD50	>4000 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rab)

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- **Primary irritant effect:**
- **on the skin:** Long term contact may cause defatting of the skin, provoking irritation/infection
- **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 slightly biodegradable.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

13 Disposal considerations

· **Product:**

· **European waste catalogue**

12 00 00	WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS
12 01 00	wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 10*	synthetic machining oils

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

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:** -

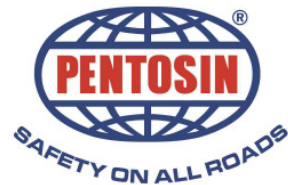
· **Transport/Additional information:** No dangerous goods in accordance with the above orders

15 Regulatory information

· **Designation according to EC guidelines:**

The material is not subject to classification according to EC lists and other sources of literature known to us.

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- **National regulations:**
- **Water hazard class:** *Water hazard class 1 (Self-assessment): slightly 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 international 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)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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

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