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

### 1.1 Product identifier

**febi 21648 hydraulic fluid**
**Article number 21648**

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

#### 1.2.1 Relevant uses

Hydraulics oil

#### 1.2.2 Uses advised against

None known.

### 1.3 Details of the supplier of the safety data sheet

**Company**

Ferdinand Bilstein GmbH + Co. KG
Wilhelmstr. 47
58256 Ennepetal / GERMANY
Phone +49 2333 911-0
Fax +49 2333 911-444
Homepage www.febi.com
E-mail info@febi.com

**Address enquiries to**

**Technical information** info@febi.com

**Safety Data Sheet** info@febi.com

### 1.4 Emergency telephone number

**Advisory body** +49 (0)89-19240 (24h) (english)

**Company** +49 2333 911-0

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

No classification.

### 2.2 Label elements

The product does not require a hazard warning label in accordance with GHS/CLP-directives.

**Hazard pictograms** none

**Signal word** none

**Hazard statements** none

**Special labelling** EUH210 Safety data sheet available on request.

### 2.3 Other hazards

**Physico-chemical hazards** No particular hazards known.

**Human health dangers** Frequent persistent contact with the skin can cause skin irritation.
If swallowed or in the event of vomiting, risk of product entering the lungs.

**Environmental hazards** Does not contain any PBT or vPvB substances.

**Other hazards** Further hazards were not determined with the current level of knowledge.

## SECTION 3: Composition / Information on ingredients

**Product-type:**

**The product is a mixture.**

| Range [%] | Substance |
|---|---|
| 1 - 2,4 | Gas oils (petroleum), hydrodesulfurized |
| | CAS: 64742-79-6, EINECS/ELINCS: 265-182-8, EU-INDEX: 649-222-00-5 |
| | GHS/CLP: Acute Tox. 4: H332 - Asp. Tox. 1: H304 - Skin Irrit. 2: H315 - Aquatic Chronic 2: H411 |

**Comment on component parts** Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.
For full text of H-statements and R-phrases: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information** Change soaked clothing.

**Inhalation** Ensure supply of fresh air.
In the event of symptoms seek for medical treatment.

**Skin contact** When in contact with the skin, clean with soap and water.
Consult a doctor if skin irritation persists.

**Eye contact** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

**Ingestion** Seek medical advice immediately.
Do not induce vomiting.

### 4.2 Most important symptoms and effects, both acute and delayed

None known.

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

Treat symptomatically.
Forward this sheet to the doctor.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** Carbon dioxide.
Dry powder.
Foam.

**Extinguishing media that must not be used** Full water jet.

### 5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Carbon monoxide (CO)
Sulphur oxides (SOx).

### 5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

## SECTION 6: Accidental release measures

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

High risk of slipping due to leakage/spillage of product.
Forms slippery surfaces with water.

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
Prevent spread over a wide area (e.g. by containment or oil barriers).

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

Take up residues with absorbent material (e.g. sand).
Dispose of absorbed material in accordance within the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

No special measures necessary if used correctly.

The product is combustible.

Wash hands before breaks and after work.
Use barrier skin cream.
Contaminated work clothing should not be allowed out of the workplace.
Take off contaminated clothing and wash before reuse.
Cloths contaminated with product should not be kept in trouser pockets.
Do not eat, drink or smoke when using this product.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Prevent penetration into the ground.

Keep container tightly closed.

### 7.3 Specific end use(s)

See product use, SECTION 1.2

## SECTION 8: Exposure controls / personal protection

### 8.1 Control parameters

**Ingredients with occupational exposure limits to be monitored (GB)**

not applicable

### 8.2 Exposure controls

| | |
|---|---|
| **Additional advice on system design** | Ensure adequate ventilation on workstation. |
| **Eye protection** | If there is a risk of splashing:<br>Safety glasses. |
| **Hand protection** | The details concerned are recommendations. Please contact the glove supplier for further information.<br>> 0,4 mm: Nitrile rubber, >480 min (EN 374).<br>> 0,4 mm: Neoprene, >480 min (EN 374). |
| **Skin protection** | Light protective clothing. |
| **Other** | Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of these equipments to chemicals should be ascertained with the respective supplier.<br>Avoid contact with eyes and skin. |
| **Respiratory protection** | Breathing apparatus in the event of aerosol or mist formation.<br>Short term: filter apparatus, filter A. |
| **Thermal hazards** | none |
| **Delimitation and monitoring of the environmental exposition** | Comply with applicable environmental regulations limiting discharge to air, water and soil. |

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| **Form** | liquid |
| **Color** | light brown |
| **Odor** | characteristic |
| **Odour threshold** | not applicable |
| **pH-value** | not applicable |
| **pH-value [1%]** | not applicable |
| **Boiling point [°C]** | not applicable |
| **Flash point [°C]** | 200 (ISO 2592) |
| **Flammability (solid, gas) [°C]** | not determined |
| **Lower explosion limit** | not applicable |
| **Upper explosion limit** | not applicable |
| **Oxidizing properties** | no |
| **Vapour pressure/gas pressure [kPa]** | not determined |
| **Density [g/ml]** | 0,85 (DIN 51757) (15 °C / 59,0 °F) |
| **Bulk density [kg/m³]** | not applicable |
| **Solubility in water** | immiscible |
| **Partition coefficient [n-octanol/water]** | not determined |
| **Viscosity** | 30,6 mm²/s (40°C) |
| **Relative vapour density determined in air** | not determined |
| **Evaporation speed** | not determined |
| **Melting point [°C]** | not determined |
| **Autoignition temperature [°C]** | not applicable |
| **Decomposition temperature [°C]** | not determined |

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

The product is stable under standard conditions.

### 10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

### 10.4 Conditions to avoid

See SECTION 7.2.
Strong heating.

### 10.5 Incompatible materials

No information available.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

| | |
|---|---|
| **Serious eye damage/irritation** | not determined |
| **Skin corrosion/irritation** | not determined |
| **Respiratory or skin sensitisation** | not determined |
| **Specific target organ toxicity — single exposure** | not determined |
| **Specific target organ toxicity — repeated exposure** | not determined |
| **Mutagenicity** | not determined |
| **Reproduction toxicity** | not determined |
| **Carcinogenicity** | not determined |
| **General remarks** | |
| | No classification on the basis of the calculation procedure of the preparation directive. Toxicological data of complete product are not available. |

## SECTION 12: Ecological information

### 12.1 Toxicity

### 12.2 Persistence and degradability

| | |
|---|---|
| **Behaviour in environment compartments** | not determined |
| **Behaviour in sewage plant** | not determined |
| **Biological degradability** | not determined |

### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

### 12.6 Other adverse effects

The product was classified on the basis of the calculation procedure of the preparation directive.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

**Product**

For recycling, consult manufacturer.
In according to RoHS!
Disposal in an incineration plant in accordance with the regulations of the local authorities.

**Waste no. (recommended)** 130111*

**Contaminated packaging**

Uncontaminated packaging may be taken for recycling.
Uncontaminated packaging may be reused.

**Waste no. (recommended)** 150102
150104
150110*

## SECTION 14: Transport information

### 14.1 UN number

See SECTION 14.2 in accordance with UN shipping name

### 14.2 UN proper shipping name

| | |
|---|---|
| **Transport by land according to ADR/RID** | NO DANGEROUS GOODS |
| **Inland navigation (ADN)** | NO DANGEROUS GOODS |
| **Marine transport in accordance with IMDG** | NOT CLASSIFIED AS "DANGEROUS GOODS" |
| **Air transport in accordance with IATA** | NOT CLASSIFIED AS "DANGEROUS GOODS" |

### 14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

### 14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

### 14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

## SECTION 15: Regulatory information

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

| | |
|---|---|
| **EEC-REGULATIONS** | 1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC |
| **TRANSPORT-REGULATIONS** | DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2015). |
| **NATIONAL REGULATIONS (GB):** | EH40/2005 Workplace exposure limits (Second edition, published December 2011).<br>CHIP 3/ CHIP 4 |
| **- Observe employment restrictions for people** | no |
| **- VOC (1999/13/CE)** | 0% |

### 15.2 Chemical safety assessment

not applicable

## SECTION 16: Other information

### 16.1 Hazard statements (SECTION 3)

H411 Toxic to aquatic life with long lasting effects.
H315 Causes skin irritation.
H304 May be fatal if swallowed and enters airways.
H332 Harmful if inhaled.

### 16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
ELINCS = European List of Notified Chemical Substances
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform ChemicaL Information Database
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

### 16.3 Other information

**Classification procedure**

| | |
|---|---|
| **Modified position** | SECTION 3 deleted: Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts |
| | SECTION 2 been added: The product does not require a hazard warning label in accordance with GHS/CLP-directives. |
| | SECTION 2 deleted: S 61: Avoid release to the environment. Refer to special instructions, safety data sheets. |
| | SECTION 2 deleted: R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| | SECTION 8 been added: Comply with applicable environmental regulations limiting discharge to air, water and soil. |