SECTION 1: Identification of the substance / preparation and of the company

1.1 Product identifier

febi 32921 Engine Oil
Article number 32921, 32922, 32923, 32924

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

1.2.1 Relevant uses

Engine 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 sdb@chemiebuero.de

1.4 Emergency phone

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

Company +49 2333 911-0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms

not applicable

2.1.2 Classification according to Regulation 67/548/EEC or 1999/45/EC

Hazard symbols none

R-phrases none

The product is required to be labelled in accordance with EC-Directives.

2.2 Label elements

Labelling according to Regulation 67/548/EEC or 1999/45/EC

Hazard symbols none

R-phrases none

Special labelling Safety data sheet available for professional user on request.

2.3 Other hazards

Physico-chemical hazards No particular hazards known.

Human health dangers If swallowed or in the event of vomiting, risk of product entering the lungs.

Frequent persistent contact with the skin can cause skin irritation.

Environmental hazards Does not contain any PBT or vPvB substances.

Other hazards none

SECTION 3: Composition / Information on ingredients

3.1 Product-type:

The product is a mixture.

Range [%]	Substance
1 - 5	Benzenesulfonic acid, C10-60-alkyl derivs., calcium salts
	CAS: 90194-27-7, EINECS/ELINCS: 290-636-7
	GHS/CLP: Aquatic Chronic 4 - H413
	EEC: R 53
1 - 5	Polyolefine polyamine succinimid, polyol
	CAS: 147880-09-9, EINECS/ELINCS: Polymer
	GHS/CLP: Aquatic Chronic 4 - H413
	EEC: R 53
0,1 - <2,5	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts
	CAS: 68649-42-3, EINECS/ELINCS: 272-028-3
	GHS/CLP: Eye Dam. 1 - H318 - Aquatic Chronic 2 - H411
	EEC: Xi-N, R 41-51/53

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 In case of contact with eyes rinse thoroughly and immediately with plenty of water and seek medical advice.

Ingestion Consult a doctor immediately.
Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Headache

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
If swallowed or in the event of vomiting, risk of product entering the lungs.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Foam, dry powder, water spray jet, carbon dioxide.

Extinguishing media that must not be used Full water jet.

5.2 Special hazards arising from the substance or mixture

Unknown risk of formation of toxic pyrolysis products.
Carbon monoxide (CO)
Sulphur oxides (SOx).
Nitrogen oxides (NOx).

5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.
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

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

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g. general-purpose binder).
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

Avoid formation of aerosols.

7.2 Conditions for safe storage, including any incompatibilities

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

Do not store together with oxidizing agents.

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	Safety glasses.
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. Nitrile rubber, >480 min (EN 374).
Skin protection	Light protective clothing.
Other	Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of these equipments to chemicals should be ascertained with the respective supplier. Wash hands before breaks and after work. Cloths contaminated with product should not be kept in trouser pockets. Use barrier skin cream.
Respiratory protection	Breathing apparatus in the event of aerosol or mist formation. Short term: filter apparatus, combination filter A-P1.
Thermal hazards	No information available.
Delimitation and monitoring of the environmental exposition	See SECTION 6+7.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid
Color	brown
Odor	characteristic
Odour threshold	not determined
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not determined
Flash point [°C]	> 200 (ISO 2592)
Flammability [°C]	not determined
Lower explosion limit	not determined
Upper explosion limit	not determined
Oxidizing properties	no
Vapour pressure/gas pressure [kPa]	< 0,01 (20°C)
Density [g/ml]	~0,885 (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	~ 17,5 - 21,5 mm²/s (100°C) (DIN 51562/T1)
Relative vapour density determined in air	not determined
Evaporation speed	not determined
Melting point [°C]	~-21 (ISO 3016)
Autoignition temperature [°C]	not determined
Decomposition temperature	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

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.

10.4 Conditions to avoid

See SECTION 7.2.

10.5 Incompatible materials

not determined

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	Frequent persistent contact with the skin can cause skin irritation.
	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

Range [%]	Substance
0,1 - <2,5	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts, CAS: 68649-42-3
	LC50, (96h), Pimephales promelas: 1 - 5 mg/L.
	EC50, (48h), Daphnia magna: 1 - 1,5 mg/L.

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

No classification on the basis of the calculation procedure of the preparation directive.
Ecological data of complete product are not available.
Do not discharge product unmonitored into the environment or into the drainage.
The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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

Coordinate disposal with the authorities if necessary.
Disposal in an incineration plant in accordance with the regulations of the local authorities.
In according to RoHS!

Waste no. (recommended) 130205* mineral-based non-chlorinated engine, gear and lubricating oils

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended) 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 MARPOL73/78 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 (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).
CHIP 3/ CHIP 4

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 R-phrases (SECTION 3)

R 53: May cause long-term adverse effects in the aquatic environment.
R 41: Risk of serious damage to eyes.
R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

16.2 Hazard statements (SECTION 3)

H413 May cause long lasting harmful effects to aquatic life.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.

16.3 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

16.4 Other information

Observe employment restrictions for people	no
VOC (1999/13/CE)	0%
Modified position	SECTION 12 been added: Based on all available information not to be classified as PBT or vPvB respectively.
	SECTION 10 been added: No dangerous reactions known if used as directed.
	SECTION 4 been added: When in contact with the skin, clean with soap and water.
	SECTION 3 deleted: The contained dangerous materials are not freely available with foreseeable use.
	SECTION 2 been added: Does not contain any PBT or vPvB substances.