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

1.1 Product identifier

febi 32945 Engine Oil 5W - 30 Longlife Plus
Article number: 32945, 32946, 32947, 32948, 39337

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	info@febi.com

1.4 Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

Hazard pictograms	none
Signal word	none
Hazard statements	H412 Harmful to aquatic life with long lasting effects.
Precautionary statements	P273 Avoid release to the environment. P501 Dispose of contents / container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.3 Other hazards

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:

3.2 The product is a mixture.

Range [%]	Substance
15 - < 30	Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based
	CAS: 72623-87-1, EINECS/ELINCS: 276-738-4, EU-INDEX: 649-483-00-5, Reg-No.: 01-2119474889-13-XXXX
	GHS/CLP: Asp. Tox. 1: H304
1 - < 5	Benzenepropanoic acid, 3,5-bis(1,1-dimethyl-ethyl)-4-hydroy-, C7-C9-branched alkyl ester
	CAS: 125643-61-0, EINECS/ELINCS: 406-040-9, EU-INDEX: 607-530-00-7, Reg-No.: 01-0000015551-76
	GHS/CLP: Aquatic Chronic 4: H413
0,1 - < 0,25	Phenol, dodecyl-, branched
	CAS: 121158-58-5, EINECS/ELINCS: 310-154-3, EU-INDEX: 604-092-00-9, Reg-No.: 01-2119513207-49-XXXX
	GHS/CLP: Skin Corr. 1C: H314 - Repr. 1B: H360 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410 - Eye Dam. 1: H318, M_acute = 10

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: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information Take off contaminated clothing and wash before reuse.

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

Skin contact In case of contact with skin wash off immediately 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 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

No information available.

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

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.

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

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.
Do not store together with food and animal food/diet.

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)

Substance
Diphenylamine
CAS: 122-39-4, EINECS/ELINCS: 204-539-4, EU-INDEX: 612-026-00-5
Long-term exposure: 10 mg/m³
Short-term exposure (15-minute): 20 mg/m³

DNEL

Substance
Phenol, dodecyl-, branched, CAS: 121158-58-5
Industrial, dermal, Acute - systemic effects: 166 mg/kg bw.
Industrial, dermal, Long-term - systemic effects: 0,25 mg/kg bw.
Industrial, inhalative (mist), Acute - systemic effects: 44,18 mg/m³.
general population, inhalative (mist), Long-term - systemic effects: 0,79 mg/m³.
general population, dermal, Acute - systemic effects: 50 mg/kg bw.
general population, dermal, Long-term - systemic effects: 0,075 mg/kg bw.
general population, oral, Long-term - systemic effects: 0,075 mg/kg bw.
general population, inhalative (mist), Acute - systemic effects: 13,26 mg/m³.
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
Industrial, dermal, Long-term - systemic effects: 1 mg/kg bw/day 5.6 mg/m³.
Industrial, inhalative, Long-term - local effects: 5.6 mg/m³ 5.6 mg/m³.
Industrial, inhalative, Long-term - systemic effects: 2.7 mg/m³.
general population, oral, Long-term - systemic effects: 0.74 mg/kg bw/day 5.6 mg/m³.
Benzenepropanoic acid, 3,5-bis(1,1-dimethyl-ethyl)-4-hydroy-, C7-C9-branched alkyl ester, CAS: 125643-61-0
Industrial, dermal, Acute - local effects: 1 mg/cm².
Industrial, dermal, Long-term - systemic effects: 0,22 mg/kg bw/day.
Industrial, dermal, Acute - systemic effects: 20 mg/kg bw/day.
Industrial, dermal, Long-term - local effects: 0,006 mg/cm².

PNEC

Substance
Phenol, dodecyl-, branched, CAS: 121158-58-5
oral (food), 4 mg/kg.
freshwater, 0,000074 mg/l.
sediment (freshwater), 0,226 mg/kg.
sediment (seawater), 0,0226 mg/kg.
seawater, 0,0000074 mg/l.
soil, 0,188 mg/kg.
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
oral (food), 9,33 mg/kg.
Benzenepropanoic acid, 3,5-bis(1,1-dimethyl-ethyl)-4-hydroy-, C7-C9-branched alkyl ester, CAS: 125643-61-0
oral (food), 0,033 mg/kg food.
soil, 189 mg/kg dw.
sediment (seawater), 23,3 mg/kg dw.

sediment (freshwater), 233 mg/kg dw.
freshwater, 0,004 mg/L (AF=1000).
sewage treatment plants (STP), 10 mg/l (AF=10).

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	If there is a risk of splashing: safety glasses
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. > 0,11 mm; Nitrile rubber, >480 min (EN 374-1/-2/-3).
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 this equipment to chemicals should be ascertained with the respective supplier. Avoid contact with eyes and skin.
Respiratory protection	Breathing apparatus in the event of aerosol or mist formation. Short term: filter apparatus, combination filter A-P1. (DIN EN 14387)
Thermal hazards	No information available.
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	brown
Odor	characteristic
Odour threshold	not applicable
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	No information available.
Flash point [°C]	> 200 (EN ISO 2592)
Flammability (solid, gas) [°C]	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	< 0,01 (20°C)
Density [g/ml]	ca. 0,846 (DIN 51757) (15 °C / 59,0 °F)
Bulk density [kg/m³]	not applicable
Solubility in water	immiscible
Partition coefficient [n-octanol/water]	No information available.
Viscosity	10 - 11 mm²/s (100° C)(DIN 51562/T1)
Relative vapour density determined in air	> 20,5 mm²/s (40° C)
Evaporation speed	No information available.
Melting point [°C]	< -33 (ISO 3016)
Autoignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.

9.2 Other information

No information available.

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 oxidizing agents.

10.4 Conditions to avoid

Strong heating.
Decomposes begins at 65°C °C.

10.5 Incompatible materials

Oxidizing agent
Acids
Strong basic compounds

10.6 Hazardous decomposition products

In the case of heating following (decomposition) products may occure:
Hydrogen sulfide (H_2S).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product
dermal, Based on the available information, the classification criteria are not fulfilled.:
inhalative, Based on the available information, the classification criteria are not fulfilled.:
oral, Based on the available information, the classification criteria are not fulfilled.:

Substance
Phenol, dodecyl-, branched, CAS: 121158-58-5
LD50, dermal, Rabbit: 15000 mg/kg bw.
LD50, oral, Rat: 2100 mg/kg bw.
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
LD50, dermal, Rabbit: >= 2000 mg/kg (OECD 402).
LD50, oral, Rat: >= 5000 mg/kg (OECD 401).
LC50, inhalative, Rat: >= 5,53 mg/l (OECD 403).
Benzenepropanoic acid, 3,5-bis(1,1-dimethyl-ethyl)-4-hydroy-, C7-C9-branched alkyl ester, CAS: 125643-61-0
LD50, dermal, Rabbit: > 2000 mg/kg bw.
LD50, oral, Rat: > 2000 mg/kg bw.

Serious eye damage/irritation	Based on the available information, the classification criteria are not fulfilled.
Skin corrosion/irritation	Based on the available information, the classification criteria are not fulfilled.
Respiratory or skin sensitisation	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — single exposure	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — repeated exposure	Based on the available information, the classification criteria are not fulfilled.
Mutagenicity	Based on the available information, the classification criteria are not fulfilled.
Reproduction toxicity	No classification. Calculation method
Carcinogenicity	Based on the available information, the classification criteria are not fulfilled.
Aspiration hazard	Based on the available information, the classification criteria are not fulfilled.
General remarks	Frequent persistent contact with the skin can cause skin irritation.
	Toxicological data of complete product are not available. The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 12: Ecological information

12.1 Toxicity

Substance
Phenol, dodecyl-, branched, CAS: 121158-58-5
EC50, (72h), Scenedesmus subspicatus: 0,15 mg/l.
EC50, (21d), Daphnia magna: 0,008 mg/l.
EC50, (48h), Daphnia magna: 0,037 mg/l.
EL50, (96h), Pimephales promelas: 40 mg/l.
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
EL50, (24h), Daphnia magna: >10000 mg/l (OECD).
LL50, (96h), Pimephales promelas: >100 mg/l (OECD).
NOEL, (72h), Pseudokirchneriella subcapitata: >100 mg/l (OECD).
NOEL, (21d), Daphnia magna: 10 mg/l (OECD).
Benzenepropanoic acid, 3,5-bis(1,1-dimethyl-ethyl)-4-hydroy-, C7-C9-branched alkyl ester, CAS: 125643-61-0
LC50, (96h), fish: > 74 mg/l.
EC50, (72h), Algae: > 3 mg/l.
EC50, (48h), Daphnia magna: > 101 mg/l.
NOEC, (21d), Daphnia magna: > 1 mg/l.

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	Can be separated out mechanically in purification plants.
Biological degradability	No information available.

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

Ecological data of complete product are not available.
Do not discharge product unmonitored into the environment or into the drainage.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material c 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

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

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

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

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)

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.4 Packing group

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID	no
Inland navigation (ADN)	no
Marine transport in accordance with IMDG	no
Air transport in accordance with IATA	no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL 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	1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2016/2037/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2019)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011).
- Observe employment restrictions for people	no
- VOC (2010/75/CE)	0 %

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 03)

H413 May cause long lasting harmful effects to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H400 Very toxic to aquatic life.
H360 May damage fertility or the unborn child.
H314 Causes severe skin burns and eye damage.
H304 May be fatal if swallowed and enters airways.

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
ATE = acute toxicity estimate
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
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
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 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Modified position none