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

1.1 Product identifier

febi 101150 Engine Oil 5W-30
Article number: 101150, 101151, 101152, 101153, 101154

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]

Skin Sens. 1B: H317 May cause an allergic skin reaction.

2.2 Label elements

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

Hazard pictograms

Signal word WARNING

Contains: C14-16-18 Alkyl phenol

Hazard statements H317 May cause an allergic skin reaction.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P280 Wear protective gloves.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
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

Physico-chemical hazards No particular hazards known.

Human health dangers Frequent persistent contact with the skin can cause skin irritation.

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
30 - < 60	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 - < 2,5	Bis(nonylphenyl)amine
	CAS: 36878-20-3, EINECS/ELINCS: 253-249-4, Reg-No.: 01-2119488911-28-XXXX
	GHS/CLP: Aquatic Chronic 4: H413
1 - < 2,5	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)
	CAS: 93819-94-4, EINECS/ELINCS: 298-577-9, Reg-No.: 01-2119543726-33-XXXX
	GHS/CLP: Eye Dam. 1: H318 - Skin Irrit. 2: H315 - Aquatic Chronic 2: H411
1 - < 2,5	C14-16-18 Alkyl phenol
	EINECS/ELINCS: 931-468-2
	GHS/CLP: Skin Sens. 1: H317 - STOT RE 2: H373

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 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.
Rinse out mouth and give plenty of water to drink.
Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

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

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 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).
Hydrogen sulfide ((H2S).

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 smoke.
Fire class (DIN EN 2): B

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

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.
Protect from heat/overheating.

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

DNEL

Substance
Bis(nonylphenyl)amine, CAS: 36878-20-3
Industrial, dermal, Long-term - systemic effects: 5 mg/kg bw/day.
general population, oral, Long-term - systemic effects: 0,25 mg/kg bw/day.
general population, dermal, Long-term - systemic effects: 2,5 mg/kg bw/day.
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
Industrial, inhalative, Long-term - local effects: 5.6 mg/m³ 5.6 mg/m³.
Industrial, dermal, Long-term - systemic effects: 1 mg/kg bw/day 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.
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate), CAS: 93819-94-4
Industrial, dermal, Long-term - systemic effects: 0,58 mg/kg bw/d (AF=120).
Industrial, inhalative, Long-term - systemic effects: 8,31 mg/m³.
general population, inhalative, Long-term - systemic effects: 2,11 mg/m³ (AF=60).
general population, oral, Long-term - systemic effects: 0,24 mg/kg bw/d (AF=600).
general population, dermal, Long-term - systemic effects: 0,29 mg/kg bw/d (AF=240).

PNEC

Substance
Bis(nonylphenyl)amine, CAS: 36878-20-3
soil, 263000 mg/kg.
sediment (seawater), 13200 mg/kg.
sediment (freshwater), 132000 mg/kg.
sewage treatment plants (STP), 1 mg/l.
seawater, 0,01 mg/l.
freshwater, 0,1 mg/l.
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
oral (food), 9,33 mg/kg.
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate), CAS: 93819-94-4
oral (food), 10,67 mg/kg dw (AF=300).
soil, 0,005 mg/kg dw.
sediment (seawater), 0,001 mg/kg dw.
sediment (freshwater), 0,012 mg/kg dw.
sewage treatment plants (STP), 100 mg/l (AF=100).
seawater, 4,6 µg/l (AF=10 000).
freshwater, 4 µg/l (AF=100).

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	Safety glasses. (EN 166:2001)
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	light brown
Odor	characteristic
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	No information available.
Boiling point [°C]	No information available.
Flash point [°C]	> 195 (ISO 2592)
Flammability (solid, gas) [°C]	not applicable
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. 0,85 (DIN 51757) (15 °C / 59,0 °F)
Bulk density [kg/m³]	not applicable
Solubility in water	virtually insoluble
Partition coefficient [n-octanol/water]	No information available.
Viscosity	ca. 10,2 mm²/s (100°C) (DIN 51562/T1) > 20,5 mm²/s (40°C)
Relative vapour density determined in air	No information available.
Evaporation speed	No information available.
Melting point [°C]	< -36 (DIN ISO 3016)
Autoignition temperature [°C]	No information available.
Decomposition temperature [°C]	> 65°C

9.2 Other information

Pour point: ca. -36°C

SECTION 10: Stability and reactivity

10.1 Reactivity

See SECTION 10.3.

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

strong acids
Strong heating, because the thermal decomposition starts from > 65°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

Substance
Bis(nonylphenyl)amine, CAS: 36878-20-3
LD50, dermal, Rat: >2000 mg/kg (OECD 402).
LD50, oral, Rat: >5000 mg/kg (OECD 401).
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).
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate), CAS: 93819-94-4
LD50, dermal, Rabbit: >3160 mg/kg bw.
LD50, oral, Rat: 2600 mg/kg bw.
LC50, inhalative, Rat: >2 mg/l air.

Serious eye damage/irritation
Toxicological data of complete product are not available.
CAS 93819-94-4: >10% - <12,5% Eye Irrit. 2 No classification.
Classification was carried out based on substance-specific concentration limits.

Skin corrosion/irritation
Based on the available information, the classification criteria are not fulfilled.

Respiratory or skin sensitisation
Toxicological data of complete product are not available.
May cause an allergic skin reaction.
Calculation method

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
Based on the available information, the classification criteria are not fulfilled.

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

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.

SECTION 12: Ecological information

12.1 Toxicity

Substance
Bis(nonylphenyl)amine, CAS: 36878-20-3
EC50, (48h), Daphnia magna: >100 mg/l (OECD 202).
LC0, (96h), Brachidanio rerio: 58 mg/l (OECD 203).
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).
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate), CAS: 93819-94-4
EC50, (72h), Selenastrum capricornutum: 2,1 mg/l.
EC50, (48h), Daphnia magna: 5,4 mg/l.
IC50, (21d), Daphnia magna: >0,8 mg/l.
LL50, (96h), Oncorhynchus mykiss: 4,5 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	The product is not readily biodegradable.

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.
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 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

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

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	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (2010/75/CE)	not applicable

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 03)

H304 May be fatal if swallowed and enters airways.
H413 May cause long lasting harmful effects to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.
H317 May cause an allergic skin reaction.

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 Skin Sens. 1B: H317 May cause an allergic skin reaction. (Calculation method)

Modified position none