

**Ferdinand Bilstein GmbH + Co. KG**

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Version 13.0. Supersedes version: 11.0

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

**1.1 Product identifier**

**Engine Oil 15W - 40**  
**Article number: 32925, 32926, 32927, 32928, 32929, 32930, 80366**

**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**

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

**2.2 Label elements**

The product is classified as hazardous in accordance to OSHA Standard 29 CFR 1910.1200 (HCS 2012)

**Hazard pictograms**



**Signal word**

WARNING

**Contains:**

Alkyl (C18-C28) toluenesulfonic acid, calcium salts, borated, CAS: -

**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/eye protection/face protection.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P501 Dispose of contents/container to approved disposal company or municipal collection point.

**2.3 Other hazards**

**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.  
Contains no ingredients with endocrine-disrupting properties.

**Other hazards**

None

This product is classified as hazardous in accordance to OSHA Standard 29 CFR 1910.1200.

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**SECTION 3: Composition / Information on ingredients**

**3.1 Substances**

Not applicable

**3.2 Mixtures**

The product is a mixture.

Range [%]	Substance
1 - < 2,5	Alkyl (C18-C28) toluenesulfonic acid, calcium salts, borated CAS: -
1 - < 2,5	Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts CAS: 68784-31-6

**Comment on component parts**

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**

Allergic reactions

**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**

Fire extinguishing method of surrounding areas must be considered.  
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**

Not combusted hydrocarbons.  
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.

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**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.  
Ensure adequate ventilation.  
Use personal protective equipment (protective gloves, safety glasses, protective clothing).

**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 with 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  
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.  
Keep container tightly closed.  
Protect from heat/overheating.

**7.3 Specific end use(s)**

See product use, SECTION 1.2



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**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

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

Not applicable

**DNEL**

Substance
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts, CAS: 68784-31-6
Industrial, inhalative, Long-term - systemic effects, 2,93 mg/m <sup>3</sup>
Industrial, inhalative, Acute - systemic effects, 496,4 mg/m <sup>3</sup>
Industrial, dermal, Long-term - systemic effects, 10,42 mg/kg bw/d
Industrial, dermal, Acute - systemic effects, 100 mg/kg bw/d
general population, inhalative, Acute - systemic effects, 11,75 mg/m <sup>3</sup>
general population, inhalative, Acute - systemic effects, 198,6 mg/m <sup>3</sup>
general population, dermal, Long-term - systemic effects, 2,1 mg/kg bw/d
general population, dermal, Acute - systemic effects, 50 mg/kg bw/d
general population, oral, Long-term - systemic effects, 0,21 mg/kg bw/d
general population, oral, Acute - systemic effects, 29 mg/kg bw/d
Alkyl (C18-C28) toluenesulfonic acid, calcium salts, borated, CAS: -
There are no DNEL values established for the substance.

**PNEC**

Substance
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts, CAS: 68784-31-6
seawater, 0,0046 mg/l
freshwater, 0,0040 mg/l
sediment (seawater), 0,00701 mg/l
sediment (freshwater), 0,0701 mg/l
sewage treatment plants (STP), 3,8 mg/l
soil, 0,0548 mg/kg
oral (food), 8,33 mg/kg
Alkyl (C18-C28) toluenesulfonic acid, calcium salts, borated, CAS: -
There are no PNEC values established for the substance.



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**8.2 Exposure controls**

<b>Additional advice on system design</b>	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. General limit for oil mist should be noted.
<b>Eye protection</b>	If there is a risk of splashing: safety glasses
<b>Hand protection</b>	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).
<b>Skin protection</b>	light protective clothing
<b>Other</b>	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.
<b>Respiratory protection</b>	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, combination filter A-P1. (DIN EN 14387)
<b>Thermal hazards</b>	None
<b>Delimitation and monitoring of the environmental exposition</b>	Comply with applicable environmental regulations limiting discharge to air, water and soil.

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**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

Physical state	Liquid
Form	Liquid
Color	brown
Odor	characteristic
Odor threshold	Not applicable
pH-value	Not applicable
pH-value [1%]	Not applicable
Boiling point or initial boiling point and boiling range [°C]	No information available.
Flash point [°C]	>235 (ISO 2592)
Flammability	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidizing properties	No
Vapor pressure/gas pressure [kPa]	<0,01 (20°C)
Density [g/cm <sup>3</sup> ]	0,878 (DIN 51757) (15 °C / 59,0 °F)
Relative density	Not determined
Bulk density [kg/m <sup>3</sup> ]	Not applicable
Solubility in water	immiscible
Solubility other solvents	No information available.
Partition coefficient n-octanol/water (log value)	No information available.
Kinematic viscosity	>20,5 mm <sup>2</sup> /s (40°C) ca. 14,6 mm <sup>2</sup> /s (100°C) (DIN 51562/T1)
Relative vapour density	No information available.
Melting point [°C]	No information available.
Auto-ignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.
Particle characteristics	No information available.

**9.2 Other information**

Pour point: - 30°C

**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**

Strong heating.

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**10.5 Incompatible materials**

Oxidizing agent

**10.6 Hazardous decomposition products**

In the case of heating following (decomposition) products may occur:  
> 65°C  
Hydrogen sulfide ((H<sub>2</sub>S).

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute oral toxicity** Based on available data, the classification criteria are not met.

Product
oral, Based on the information available, the classification criteria have not been fulfilled.
Substance
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts, CAS: 68784-31-6
LD50, oral, Rat, 2900 - 3400 mg/kg bw

**Acute dermal toxicity** Based on available data, the classification criteria are not met.

Product
dermal, Based on the information available, the classification criteria have not been fulfilled.
Substance
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts, CAS: 68784-31-6
LD50, dermal, Rabbit, 5000 mg/kg bw

**Acute inhalational toxicity** Based on available data, the classification criteria are not met.

Product
inhalative, Based on the information available, the classification criteria have not been fulfilled.

**Serious eye damage/irritation** Non-irritant.  
Expert judgement

**Skin corrosion/irritation** Based on the information available, the classification criteria have not been fulfilled.

**Respiratory or skin sensitisation** May cause an allergic skin reaction.

**Specific target organ toxicity — single exposure** Based on the information available, the classification criteria have not been fulfilled.

**Specific target organ toxicity — repeated exposure** Based on the information available, the classification criteria have not been fulfilled.

Substance
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts, CAS: 68784-31-6
NOAEL, oral, Rat, 125 mg/kg bw/day

**Mutagenicity** Based on the information available, the classification criteria have not been fulfilled.

**Reproduction toxicity** Based on the information available, the classification criteria have not been fulfilled.

**Carcinogenicity** Based on the information available, the classification criteria have not been fulfilled.

**Aspiration hazard** Based on the information available, the classification criteria have not been fulfilled.

**General remarks**

Toxicological data of complete product are not available.

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**SECTION 12: Ecological information**

**12.1 Toxicity**

Product
Based on the information available, the classification criteria have not been fulfilled.
Substance
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts, CAS: 68784-31-6
LC50, (4d), fish, 46 mg/L
IC50, (21d), Invertebrates, 530 - 800 µg/L
EL50, (72h), Algae, 240 - 410 mg/L
EL50, (48h), Invertebrates, 75 mg/L
NOEC, (21d), Invertebrates, 400 - 800 µg/L
NOELR, (48h), Invertebrates, 32 mg/L
NOELR, (4d), fish, 3.2 mg/L
LL50, (4d), fish, 4.4 mg/L
LOEC, (21d), Invertebrates, 800 µg/L

**12.2 Persistence and degradability**

<b>Behaviour in environment compartments</b>	Not determined
<b>Behaviour in sewage plant</b>	Not determined
<b>Biological degradability</b>	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 Endocrine disrupting properties**

Contains no ingredients with endocrine-disrupting properties.

**12.7 Other adverse effects**

Ecological data of complete product are not available.





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**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Product**

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

**Contaminated packaging**

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

**RCRA Hazard Class (40CFR 261)**

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities.

**SECTION 14: Transport**

**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

DOT Road Shipment Information (49 CFR) 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"

DOT Road Shipment Information (49 CFR) Not applicable

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**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

DOT Road Shipment Information (49 CFR) 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

DOT Road Shipment Information (49 CFR) 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

DOT Road Shipment Information (49 CFR) 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

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**SECTION 15: Regulatory information**

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

**US Regulations**

**National regulations**

29 CFR 1910.1200-HCS 2012, OSHA-PEL, ACGIH-TLV, NTP, IARC, SARA Title III, NFPA, TSCA, California - Prop. 65

- SARA, 302

This product does not contain any ingredients regulated under this list.

- SARA, 311

This product does not contain any ingredients regulated under this list.

- SARA, 313

This product does not contain any ingredients regulated under this list.

- CA Proposition 65

No components require labeling under California Proposition 65.

- TSCA

All chemical substances in this material are included on or exempted from listing on the TSCA Inventory.

- FDA

Not applicable

**American Conference of  
Governmental Industrial Hygienists -  
ACGIH**

A4: Not classifiable as a human carcinogen.

**International Agency for Research on  
Cancer IARC**

IARC: Not classifiable as to carcinogenicity to humans.

**National Toxicology Program - NTP**

This product is not named NTP - National Toxicology Program.

**HAP-VOC**

Not applicable

**Transport-regulations**

DOT-Classification, ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2024)

**15.2 Chemical safety assessment**

Not applicable

## SECTION 16: Other information

### 16.1 Abbreviations and acronyms:

ACGIH = American Conference of Governmental Industrial Hygienists;  
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;  
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act;  
CFR = Code of Federal Regulations;  
CPR = Controlled Products Regulations;  
DMEL = Derived Minimum Effect Level;  
DNEL = Derived No Effect Level;  
DOT = Department of Transportation;  
EC50 = Median effective concentration;  
EPA = Environmental Protection Agency;  
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;  
IARC = International Agency of Research on Cancer;  
IATA = International Air Transport Association;  
TSCA = Toxic Substance Control Act;  
HMIS = Hazardous Materials Identification System;  
NFPA = National Fire Protection Association;  
NIOSH = National Institute for Occupational Safety and Health;  
OSHA = Occupational Safety and Health Administration;  
LC50 = Lethal concentration, 50%;  
LD50 = Median lethal dose, 50%;  
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;  
SARA = Superfund Amendments and Reauthorization Act;  
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;

### 16.2 Ratings

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**NFPA Ratings**



TOP, FLAMMABILITY: 1 - Slight Hazard  
LEFT, HEALTH: 2 - Moderate Hazard  
RIGHT, REACTIVITY: 0 - Minimal Hazard  
BOTTOM, SPECIAL NOTICE:

**HMIS Ratings**

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

2 - Moderate Hazard  
1 - Slight Hazard  
0 - Minimal Hazard  
X - Personal protection rating to be supplied by user depending on use conditions

**PERSONAL PROTECTION:**

- A - Safety Glasses
- B - Safety Glasses and Gloves
- C - Safety Glasses, Gloves and Protection Apron
- D - Face Shield, Gloves and Protection Apron
- E - Safety Glasses, Gloves and Dust Respirator
- F - Safety Glasses, Gloves, Protection Apron and Dust Respirator
- G - Safety Glasses, Gloves and Vapor Respirator.
- H - Splash Goggles, Gloves, Protection Apron and Vapor Respirator.
- I - Safety Glasses, Gloves, Dust Respirator and Vapor Respirator.
- J - Splash Goggles, Gloves, Protection Apron, Dust Respirator and Vapor Respirator.
- K - Airline Mask or Hood, Gloves, Full Suit and Boots.
- X - Personal protection rating to be supplied by user depending on use conditions

**Modified position**

1.3, 2.3, 3.2, 8.1, 8.2, 9.1, 11.1, 11.2, 12.6, 12.7, 15.1, 16.2, 16.3