

Ferdinand Bilstein GmbH + Co. KG

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1 Identification of the substance / preparation and of the company

1.1 Product identifier

febi 19400 antifreeze
Article number 86400, 22278, 22276, 19402, 19400

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

See product designation

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
Responsible	Schroeder@chemiebuero.de

1.4 Emergency phone

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

2 Hazards identification

2.1 Classification of the substance or mixture

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

not applicable

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

Xn, R 22

2.2 Label elements

Hazard symbols



Harmful

Contains

Ethylene glycol

R-phrases

R 22: Harmful if swallowed.

S-phrases

S 2: Keep out of the reach of children.
S 46: If swallowed, seek medical advice immediately and show this container or label.

Special labelling

not applicable

2.3 Other hazards

Physico-chemical hazards

See chapter 10.

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

The product/the substance has the Water Hazard Class 1.

Other hazards

No particular hazards known.

3 Composition / Information on ingredients

3.1 Substances

The product in question is a mixture.

3.2 Mixtures

Range [%]	Substance
> 90	Ethylene glycol CAS: 107-21-1, EINECS/ELINCS: 203-473-3, EU-INDEX: 603-027-00-1 GHS/CLP: Acute Tox. 4, H302 EEC: Xn R22
1 - < 5	Sodium 2-ethylhexanoate CAS: 19766-89-3, EINECS/ELINCS: 243-283-8 GHS/CLP: not applicable EEC: Xn R63

Comment on component parts Substances of Very High Concern - SVHC: substances are not contained or below 0,1%.
For the wording of the listed risk phrases refer to section 16.

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	In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists.
Eye contact	In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.
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

No informations available.

4.3 Indication of any immediate medical attention and special treatment needed

In the event of symptoms seek for medical treatment.
If swallowed or in the event of vomiting, risk of product entering the lungs.

5 Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Carbon dioxide. Water spray jet. Dry powder. Foam.
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.

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.

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.

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6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).
Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections

See Chapter 8+13

7 Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
The product is combustible.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Do not store together with oxidizing agents.
Keep container tightly closed.
Keep container in a well-ventilated place.

7.3 Specific end use(s)

See product use, Chapter 1.2

8 Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Range [%]	Substance / WEL: Workplace exposure limit
> 90	Ethylene glycol / 20 ppm, 52 mg/m ³ , Vapour

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.
Do not inhale vapours.
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.
Remove soiled or soaked clothing immediately.
Do not eat, drink, smoke or take drugs at work.
Use barrier skin cream.
Wash hands before breaks and after work.

Respiratory protection Breathing apparatus in the event of high concentrations.
Short term: filter apparatus, combination filter A-P2.

Thermal hazards No informations available.

Delimitation and monitoring of the environmental exposition not determined

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9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid
Color	violet
Odor	characteristic
Odour threshold	not determined
pH-value	~ 8,4
pH-value [1%]	not determined
Boiling point [°C]	> 120
Flash point [°C]	> 110 (DIN 51758)
Flammability [°C]	> 400 (DIN 51794)
Lower explosion limit	~3,2 Vol.%
Upper explosion limit	~15,3 Vol.%
Oxidizing properties	no
Vapour pressure [kPa]	< 0,01 (20°C)
Density [g/ml]	~ 1,11 (DIN 51757)
Bulk density [kg/m ³]	not applicable
Solubility in water	miscible
Partition coefficient [n-octanol/water]	not determined
Viscosity	> 15 mm ² /s (20°C) (DIN 51562/T1)
Relative vapour density determined in air	not determined
Evaporation speed	not determined
Melting point [°C]	not determined
Autoignition temperature [°C]	not applicable
Decomposition temperature	> 200

9.2 Other information

No informations available.

10 Stability and reactivity

10.1 Reactivity

See chapter 10.3.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with acids, alkalies and oxidizing agents.

10.4 Conditions to avoid

See chapter 7.2.

10.5 Incompatible materials

No informations available.

10.6 Hazardous decomposition products

No hazardous decomposition products known.



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11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Ethylene glycol, CAS: 107-21-1

LD50, oral, Rat: > 2000 mg/kg.

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.

Toxicological data are not available.

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

12 Ecological information

12.1 Toxicity

Ethylene glycol, CAS: 107-21-1

LC50, (96h), Oncorhynchus mykiss: > 18500 mg/l.

EC50, (24h), Daphnia magna: 74000 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 informations available.

12.4 Mobility in soil

No informations available.

12.5 Results of PBT and vPvB assessment

No informations available.

12.6 Other adverse effects

No classification on the basis of the calculation procedure of the preparation directive.

Ecological data are not available.

Do not discharge product unmonitored into the environment or into the drainage.



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13 Disposal considerations

13.1 Waste treatment methods

Coordinate the waste disposal with the national authorities.

Product

Disposal in an incineration plant in accordance with the regulations of the local authorities.
Dispose of as hazardous waste.

Waste no. (recommended)

160114*

Contaminated packaging

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

Waste no. (recommended)

150102
150104
150110*

14 Transport information

14.1 UN number

See point 14.2 in accordance with UN shipping name

14.2 UN proper shipping name

Classification according to ADR

NO DANGEROUS GOODS

Classification according to IMDG

NOT CLASSIFIED AS "DANGEROUS GOODS"

Classification according to IATA

NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

See point 14.2 in accordance with UN shipping name

14.4 Packing group

See point 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See point 14.2 in accordance with UN shipping name

14.6 Special precautions for user

Relevant information under points 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

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 (2011); IMDG-Code (2011, 35. Amdt.); IATA-DGR (2011).

NATIONAL REGULATIONS (GB):

EH40/2005 Workplace exposure limits with amendments October 2007.
CHIP 3/ CHIP 4

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

16 Other informations

R-phrases (Chapter 03)

R 63: Possible risk of harm to the unborn child.
R 22: Harmful if swallowed.

Hazard statements (Chapter 03)

H302 Harmful if swallowed.

Observe employment restrictions for people

yes

VOC (1999/13/CE)

0 %



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