

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

1.1 Product identifier

rust remover
Article number: 200002, 200003
UFI: AT1P-WR2R-P509-WMRH

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

1.2.1 Relevant uses

Rust removing agent

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 (GB) CLP]

Aerosol 1: H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.
STOT SE 3: H336 May cause drowsiness or dizziness.
Asp. Tox. 1: H304 May be fatal if swallowed and enters airways.



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2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.	
Hazard pictograms	 
Signal word	DANGER
Contains:	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Hazard statements	H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated. H336 May cause drowsiness or dizziness.
Precautionary statements	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122°F. P405 Store locked up. P501 Dispose of contents/container in accordance with local/national regulation. P261 Avoid breathing spray.
Special labelling	EUH066 Repeated exposure may cause skin dryness or cracking.
Cleaner, 648/2004/CE, contains:	>=30% aliphatic hydrocarbons

2.3 Other hazards

Physico-chemical hazards	Heat causes increase in pressure and risk of bursting.
Environmental hazards	Does not contain any PBT or vPvB substances. Contains no ingredients with endocrine-disrupting properties.
Other hazards	Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
40 - < 50	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics
	CAS: 64742-48-9, EINECS/ELINCS: 919-857-5
	GHS/CLP: Asp. Tox. 1: H304 - Flam. Liq. 3: H226 - STOT SE 3: H336 - EUH066

Comment on component parts	For full text of H-statements: see SECTION 16. Contains less than 3% w/w DMSO-extract (only for mineral oils)
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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. Remove the victim into fresh air and keep him calm. 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	Rinse out mouth and give plenty of water to drink. Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects
Headache
Vertigo
Tiredness

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 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

Bursting aerosols can be forcibly projected from a fire.
Risk of formation of toxic pyrolysis products.
Not combusted hydrocarbons.
Carbon monoxide (CO).
Carbon dioxide (CO₂)

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Do not inhale explosion and/or combustion gases.

Cool containers at risk with water spray jet.
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

Keep away from all sources of ignition.
Ensure adequate ventilation.
Wear suitable protective equipment. For personal protection see SECTION 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Take up residues with absorbent material (e.g. sand, sawdust, 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

Use only in well-ventilated areas.
Avoid spraying in enclosed areas.
Avoid contact with eyes and skin. Use personal protective equipment.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C.
Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material.
Keep away from open flames, hot surfaces and sources of ignition.
Do not smoke.

Do not eat, drink or smoke when using this product.
Take off contaminated clothing and wash before reuse.
After worktime and before work breaks the affected skin areas must be thoroughly cleaned.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Provide solvent-resistant and impermeable floor.
Do not store together with oxidizing agents.
Do not store together with food and animal food/diet.

Keep in a cool place, heat causes increase in pressure and risk of bursting.
Protect from heat/overheating and from sun.
Keep container in a well-ventilated place.

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 (UK)

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics
CAS: 64742-48-9, EINECS/ELINCS: 919-857-5
Long-term exposure: 800 mg/m ³
Petroleum gases, liquefied (< 0,1% 1,3-butadiene)
CAS: 68476-85-7, EINECS/ELINCS: 270-704-2, EU-INDEX: 649-202-00-6
Long-term exposure: 1000 ppm, 1750 mg/m ³ , Carc (only applies if LPG contains more than 0.1% of buta-1,3-diene)
Short-term exposure (15-minute): 1250 ppm, 2180 mg/m ³

Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)

not relevant

DNEL

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
Industrial, dermal, Long-term - systemic effects, 300 mg/kg bw/d
Industrial, inhalative, Acute - systemic effects, 1500 mg/m ³
general population, inhalative, Long-term - systemic effects, 300 mg/m ³ (24h)
general population, oral, Long-term - systemic effects, 300 mg/kg bw/d
general population, dermal, Long-term - systemic effects, 300 mg/kg bw/d

PNEC

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
There are no PNEC values established for the substance.

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation.
Eye protection	Safety glasses. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact: > 0,1 mm, Butyl rubber, >480 min (EN 374-1/-2/-3). In splash contact: > 0,1 mm, butyl rubber, > 120 min (EN 374)
Skin protection	Solvent-resistant protective clothing (EN 340)
Other	Do not breathe vapour/spray. Avoid contact with eyes and skin. 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.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, filter A. (DIN EN 14387)
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Form	aerosol
Color	colourless
Odor	characteristic
Odour threshold	not determined
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point or initial boiling point and boiling range [°C]	not applicable
Flash point [°C]	not applicable
Flammability	yes
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/cm ³]	No information available.
Relative density	not determined
Bulk density [kg/m ³]	not applicable
Solubility in water	not applicable
Solubility other solvents	No information available.
Partition coefficient n-octanol/water (log value)	No information available.
Kinematic viscosity	not applicable
Relative vapour density	not applicable
Melting point [°C]	not applicable
Auto-ignition temperature [°C]	not applicable
Decomposition temperature [°C]	not applicable
Particle characteristics	not applicable

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.
Heat causes increase in pressure and risk of bursting.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

10.4 Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.
Avoid temperatures above 50°C.



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10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

Flammable gases/vapours.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity

Product
Based on the available information, the classification criteria are not fulfilled.
Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
LD50, oral, Rat, 8000 mg/kg bw (Lit.)

Acute dermal toxicity

Product
Based on the available information, the classification criteria are not fulfilled.
Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
LD50, dermal, Rat, 4000 mg/kg bw (Lit.)

Acute inhalational toxicity

Product
Based on the available information, the classification criteria are not fulfilled.
Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
LC50, inhalative, Rat, >18,5 mg/L (4h) (Lit.)

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 fulfilled. Vapours may cause drowsiness and dizziness. Calculation method
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	May be fatal if swallowed and enters airways. Calculation method

General remarks

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. Toxicological data of complete product are not available.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties	Does not contain a relevant substance that meets the classification criteria.
11.2.2 Other information	none

SECTION 12: Ecological information

12.1 Toxicity

Product
Based on the available information, the classification criteria are not fulfilled.
Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
LC50, (96h), Oncorhynchus mykiss, >1000 mg/L (Lit.)
EC50, (48h), Daphnia magna, >1000 mg/L (Lit.)
EC50, (72h), Pseudokirchneriella subcapitata, >1000 mg/L (Lit.)

12.2 Persistence and degradability

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	No information available.
Biological degradability	No surfactants are contained.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

not applicable

12.6 Endocrine disrupting properties

Does not contain a relevant substance that meets the classification criteria.

12.7 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 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	Dispose of as hazardous waste.
Waste no. (recommended)	160504* gases in pressure containers (including halons) containing dangerous substances
Contaminated packaging	Uncontaminated packaging may be taken for recycling. Packaging that cannot be cleaned should be disposed of as for product.
Waste no. (recommended)	150104 150110* packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number





Transport by land according to ADR/RID	1950
Inland navigation (ADN)	1950
Marine transport in accordance with IMDG	1950
Air transport in accordance with IATA	1950

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14.2 UN proper shipping name

Transport by land according to ADR/RID	Aerosols
- Classification Code	5F
- Label	
- ADR LQ	1 I
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 2 (D)
Inland navigation (ADN)	Aerosols
- Classification Code	5F
- Label	
Marine transport in accordance with IMDG	Aerosols
- EMS	F-D, S-U
- Label	
- IMDG LQ	1 I
Air transport in accordance with IATA	Aerosols, flammable
- Label	

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	2
Inland navigation (ADN)	2
Marine transport in accordance with IMDG	2.1
Air transport in accordance with IATA	2.1

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

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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 Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EG (2000/532/EG); 2010/75/EU; 2004/42/EG; (EG) 648/2004; (EG) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEG ((EG) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014; (EU) 2019/1148; (EU) 2019/1021
- Comment on component parts	Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
- Annex I (REACH)	The product is not subject to Annex I restrictions.
- Annex XIV (REACH)	According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances $\geq 0.1\%$ that are subject to authorisation.
- Annex XVII (REACH)	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product contains $\geq 0.1\%$ of substances with the following restrictions. 40 According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product is subject to the following restrictions. 3
TRANSPORT-REGULATIONS	ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2024)
NATIONAL REGULATIONS (UK):	EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.
- Observe employment restrictions for people	Observe employment restrictions for young people. SEVESO III (Directive 2012/18/EU), Hazard categories in accordance with Regulation (EC) No 1272/2008: P3a FLAMMABLE AEROSOLS E2 ENVIRONMENTAL HAZARDS
- VOC (2010/75/CE)	ca. 100%

15.2 Chemical safety assessment

For this product a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

EUH066 Repeated exposure may cause skin dryness or cracking.
H336 May cause drowsiness or dizziness.
H226 Flammable liquid and vapour.
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
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
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
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
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

Aerosol 1: H222 Extremely flammable aerosol. (Bridging principle "Aerosols") H229
Pressurised container: May burst if heated. (Bridging principle "Aerosols")
STOT SE 3: H336 May cause drowsiness or dizziness. (Calculation method)
Asp. Tox. 1: H304 May be fatal if swallowed and enters airways. (Bridging principle "Aerosols")

Modified position

2.3, 3.2, 8.1, 9.1, 11.1, 11.2, 12.1, 12.6, 12.7, 15.1, 16.1, 16.2, 16.3