



ES WIRKT.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Buntmetall-Färber

Print date 07.09.2023
Revision date 16.08.2023
Version 3.0 (en)
replaces version of 15.10.2020 (2.5)

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

*** 1.1 Product identifier**

Trade name/designation Buntmetall-Färber
Unique Formula Identifier UFI: F1VC-51F8-A008-PN6Y

Hazard components

phosphoric acid, copper sulphate, zinc sulphate (anhydrous), Selenium Dioxide

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

Use of the substance/mixture

Browning / dyeing of non-ferrous metals (brass) and silver

*** 1.3 Details of the supplier of the safety data sheet**

Supplier

F.W.Klever
Hauptstraße 20
D-84168 Aham
Telephone +49 (0) 8744 96 99 10
Telefax + 49 (0) 8744 96 99 96
E-mail info@ballistol.de
Website www.ballistol.de

Department responsible for information:
Qualitätssicherung
Telephone +49 (0) 8744 96 99 80

E-mail (competent person):
info@ballistol.de

Manufacturer

F.W.Klever
Hauptstraße 20
D-84168 Aham
Telephone +49 (0) 8744 96 99 10
Telefax + 49 (0) 8744 96 99 96
E-mail info@ballistol.de
Website www.ballistol.de

Department responsible for information:
Qualitätssicherung
Telephone +49 (0) 8744 96 99 80

E-mail (competent person):
info@ballistol.de

*** 1.4 Emergency telephone number**

Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

*** SECTION 2: Hazards identification**

*** 2.1 Classification of the substance or mixture**

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

Acute Tox. 4, H302



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

Classification procedure

Skin Corr. 1, H314
Eye Dam. 1, H318
Aquatic Chronic 2, H411

Hazard statements for health hazards

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Hazard statements for environmental hazards

H411 Toxic to aquatic life with long lasting effects.

Remark

Reduced labelling for package sizes <= 125 ml : H411 not applicable.

*** 2.2 Label elements**

*** Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard components

phosphoric acid, copper sulphate, zinc sulphate (anhydrous), Selenium Dioxide

Hazard pictograms



GHS05



GHS07



GHS09

Signal word

Danger

Hazard statements

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H411 Toxic to aquatic life with long lasting effects.

*** Precautionary statements**

P102 Keep out of reach of children.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves//eye protection.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P301 + P312 IF SWALLOWED: Call a POISON CENTER if you feel unwell.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P330 Rinse mouth.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.
P501 Dispose of contents / container to recycling
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.



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2.3 Other hazards

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Hazardous ingredients

Table with 7 columns: CAS No., EC No., Substance name, Concentration, Classification according to Regulation (EC) No 1272/2008 [CLP], SCL/ M/ ATE. Rows include phosphoric acid, copper sulphate, zinc sulphate (anhydrous), and Selenium Dioxide.

Additional information

CAS: 7732-18-5 Name: Aqua Conc: 60-85%



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* **SECTION 4: First aid measures**

* **4.1 Description of first aid measures**

Following inhalation

Remove the affected person from the danger area only if your own safety is ensured. Consult a physician.

Following skin contact

Immediately remove all contaminated clothes and shoes, if not glued to the skin. Rinse affected skin with plenty of running water for 10 minutes or longer if the material remains on the skin. Consult a physician.

After eye contact

Rinse the eye with running water for 15 minutes. Consult a physician.

* **Following ingestion**

Rinse mouth thoroughly with water.
If you feel unwell, call the Poison Control Center or your doctor.

* **4.2 Most important symptoms and effects, both acute and delayed**

* **Symptoms**

Abdominal pain

* **4.3 Indication of any immediate medical attention and special treatment needed**

* **Notes for the doctor**

Treat symptomatically.

* **SECTION 5: Firefighting measures**

* **5.1 Extinguishing media**

* **Suitable extinguishing media**

ABC-powder
Water mist
Carbon dioxide (CO₂)

* **Unsuitable extinguishing media**

Strong water jet

* **5.2 Special hazards arising from the substance or mixture**

No data available

5.3 Advice for firefighters

Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.
Wear protective clothing to prevent eye or skin contact.

* **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Do not allow run-off from fire-fighting to enter drains or water courses.



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* **SECTION 6: Accidental release measures**

* **6.1 Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel

Use personal protection equipment.

* **For emergency responders**

Use appropriate respiratory protection.
Personal protection equipment

6.2 Environmental precautions

Avoid spilling.
If smoke or gases occur, warn neighborhood.
Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment

Pick up with dry soil or sand. Cleaning only by qualified personnel who are familiar with the appropriate material.

6.4 Reference to other sections

No data available

* **SECTION 7: Handling and storage**

* **7.1 Precautions for safe handling**

* **Protective measures**

Use only in well-ventilated areas.
Always close containers tightly after the removal of product.
Wear personal protection equipment (refer to section 8).
Avoid:
Eye contact
Skin contact

Advices on general occupational hygiene

When using do not eat, drink, smoke, sniff.
Wash contaminated clothing immediately.
Keep away from food and drink.

* **7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storage rooms and vessels

Keep cool and well-ventilated.
The floor of the storage room must be impermeable to prevent liquid leakage.
Keep/Store only in original container.

* **Storage class**

8B Non-combustible corrosive substances

Further information on storage conditions

Recommended storage temperature: 20°C.

7.3 Specific end use(s)

No data available



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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No.	EC No.	Substance name	occupational exposure limit value
7664-38-2	231-633-2	Orthophosphoric acid	1 [mg/m ³] Short-term(mg/m ³) 2 2000/39/EC
7664-38-2	231-633-2	Orthophosphoric acid	1 [mg/m ³] Short-term(mg/m ³) 2 (1) (1) 15 minutes reference period (IE)
7664-38-2	231-633-2	Orthophosphoric acid	1 [mg/m ³] Short-term(mg/m ³) 2 (UK)

8.2 Exposure controls

Personal protection equipment

Eye/face protection

safety goggles

Hand protection

If contact is possible use gloves of latex, coat thickness 0,6 mm, time < 120 min

Gloves (acid-resistant)

The material of the gloves has to be impermeable and consistent for the substance. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection

Suitable respiratory protection apparatus:

Short term: filter apparatus, Filter A/P2

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

liquid

Colour

blue

Odour

odourless

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:	not determined		
Melting point/freezing point	not determined		
Boiling point or initial boiling point and boiling range	not determined		
flammability	not determined		
Lower and upper explosion limit	not determined		



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	Value	Method	Source, Remark
Flash point	not determined		
Auto-ignition temperature	not determined		
Decomposition temperature	not determined		
pH	in delivery state approx. 1.25		
Viscosity	not determined		
Solubility(ies)	Water solubility		multimiscible
Partition coefficient n-octanol/water (log value)	not determined		
Vapour pressure	not determined		
Density and/or relative density	1.22 g/cm ³ (20°C)		
Relative vapour density	not determined		
particle characteristics	not determined		

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended transport and storage conditions.

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heating over 110°C

10.5 Incompatible materials

Reducing agent
Alkali (lye)

10.6 Hazardous decomposition products

Gases/vapours, toxic

SECTION 11: Toxicological information

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

Acute toxicity

Animal data

	Effective dose	Method,Evaluation	Source, Remark
Acute oral toxicity	3281 mg/kg Species Rat		



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	Effective dose	Method,Evaluation	Source, Remark
Acute dermal toxicity	8702 mg/kg Species Rabbit		
Acute inhalation toxicity	3.34 mg/L Species Rat Exposure time 4 h		

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
Irritant / corrosive		

Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
Irritant / corrosive		

Sensitisation to the respiratory tract

not determined

Skin sensitisation

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
Possible irritation and redness in the contact area.			

Germ cell mutagenicity

not determined

Carcinogenicity

not determined

Reproductive toxicity

not determined

STOT-single exposure

not determined

STOT-repeated exposure

not determined

Aspiration hazard

not determined

11.2 Information on other hazards

No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	LC50: 6.07 mg/L Test duration 96 h		
Chronic (long-term) fish toxicity	not determined		



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	Effective dose	Method, Evaluation	Source, Remark
Acute (short-term) toxicity to crustacea	not determined		
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	not determined		
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation			Not biodegradable

12.3 Bioaccumulative potential

Assessment/classification
Possible bioaccumulation

12.4 Mobility in soil

Assessment/classification
Is easily absorbed in the soil

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Additional ecotoxicological information

Additional information
Toxic to aquatic organisms. Toxic to soil organisms

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
110198 *	other wastes containing hazardous substances

Appropriate disposal / Package

Recycle sales packaging via DSD (Duales System Deutschland).

Remark

Disposal by specialized waste management company



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*** SECTION 14: Transport information**

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	UN 3264	UN 3264	UN 3264
14.2 UN proper shipping name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (phosphoric acid)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (phosphoric acid)	Corrosive liquid, acidic, inorganic, n.o.s. (phosphoric acid)
14.3 Transport hazard class(es)	8	8	8
14.4 Packing group	III	III	III
14.5 Environmental hazards	No	-	-

14.6 Special precautions for user

No data available

14.7 Maritime transport in bulk according to IMO instruments

No data available

Land transport (ADR/RID)

UN number or ID number UN 3264
UN proper shipping name CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (phosphoric acid)
Transport hazard class(es) 8
Hazard label(s) 8
Classification code C1
Packing group III
Environmental hazards No
Limited quantity (LQ) 5 L
Special provisions 274
Tunnel restriction code E

Sea transport (IMDG)

UN number or ID number UN 3264
UN proper shipping name CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (phosphoric acid)
Transport hazard class(es) 8
Packing group III
Environmental hazards -
Limited quantity (LQ) 5 L
Marine pollutant No
EmS F-A, S-B

Air transport (ICAO-TI / IATA-DGR)

UN number or ID number UN 3264
UN proper shipping name Corrosive liquid, acidic, inorganic, n.o.s. (phosphoric acid)
Transport hazard class(es) 8
Packing group III
Environmental hazards -



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SECTION 15: Regulatory information

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

No data available

15.2 Chemical Safety Assessment

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

SECTION 16: Other information

Additional information

National and local regulations concerning chemicals shall be observed. The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

Relevant H- and EUH-phrases (Number and full text)

- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

Indication of changes

* Data changed compared with the previous version