



Schlenk Metallpulver GmbH & Co.KG  
Barnsdorfer Hauptstr. 5  
D-91154 Roth-Barnsdorf  
Tel. +49(9171)808-0  
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VP/50051

*Bronze Powder*

Application Service  
Barnsdorfer Hauptstr. 12-14  
D-91154 Roth-Barnsdorf  
Tel. +49(9171)808-331  
Fax. +49(9171)808-204

**Technical Datas:**

**Water coverage:**  
**Residue on sieve 45 µm:**  
**Mean particle diameter:**

**Typical Analysis:**

**min. 11000 cm<sup>2</sup>/g**  
**max. 1 %**  
**approx. 14 µm**

**Characteristics:**

- Fine brilliant bronze powder
- Pigment from Cu/Zn alloy
- Flake lamellar structure
- Thickness of particle less than 0,2 µm
- Shades available: Rich Gold, Pale Gold
- Recommended for achieving a nice gold effect on paper and cardboard

**Application and Property:**

- Chromeffect/ Decoration and reflective coatings
- Aerosols, DIY
- Screen printing
- Paper coatings
- Gravure printing inks

**Processing:**

Rate of pigmentation: 30 - 35 %  
for pigmenting of plastics: 1-3 %

**Particular Advices:**

A deterioration of the leafing power entails loss of brilliance and colour strength of the ink. Possible causes: Heavy mechanical loads during employment of perl- and roller mills or speedy stirring apparatuses. Furthermore moisture containing vehicles and solvents, high acid values, low surface tension or high processing temperatures.

Date of issue: 22.08.02  
Technical information is subject to change without notice.  
The advices for processing and application are based upon the best of our current knowledge and information and are furnished without obligation.



MS-V002

**Material Safety Data Sheet**  
According to 91/155 EC

Printing date 19.03.2003

Reviewed on 18.12.2002

**\*Product details:****\*Trade name:** GOLD BRONZE POWDER VP/50051**\*Application of the substance / the preparation:** metallic pigment for paints, printing inks and plastics**\*Manufacturer/Supplier:**Schlenk Metallpulver GmbH & Co KG  
Barnsdorfer Hauptstr. 5  
D-91154 Roth-BarnsdorfTel.: ++49/9171/808-0  
Fax.: ++49/9171/808200**\*Informing department:**

Department QSB

Tel.: ++49/9171/808320

Fax.: ++49/9171/808204

**\*Emergency information:**

++49/9171/808-0

**\*Chemical characterization****\*Description:** Flake Gold Bronze Powder**\*Dangerous components:**

brass powder, copper-(7440-50-8)/zinc-(7440-66-6) alloy

R 10 100%

**\*Hazard designation:** void**\*Information pertaining to particular dangers for man and environment**

R 10 Flammable.

**\*Classification system**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

**\*After inhalation:** Supply fresh air; consult doctor in case of symptoms.**\*After skin contact:** The product is not skin irritating.**\*After eye contact**

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

**\*After swallowing:** Seek medical treatment.**\*Suitable extinguishing agents:** Sand. Do not use water.**\*For safety reasons unsuitable extinguishing agents**

Water.

Water with a full water jet.

Carbon dioxide

**\*Protective equipment:** No special measures required.**\*Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Avoid causing dust.

**\*Measures for environmental protection:**

Inform respective authorities in case product reaches water or sewage system.

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**\*Measures for cleaning/collecting:**

Collect mechanically.

Do not flush with water or aqueous cleansing agents

**\*Additional information:** See Section 7 for information on safe handling**\*Handling****\*Information for safe handling:**

Store in cool, dry place in tightly closed containers.

Prevent formation of dust.

Any deposit of dust which cannot be avoided must be removed regularly.

**\*Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

**\*Storage****\*Requirements to be met by storerooms and containers:** No special requirements.**\*Information about storage in one common storage facility:** Not required.**\*Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

**\*Additional information about design of technical systems:** No further data; see item 7.**\*Components with critical values that require monitoring at the workplace:**

copper powder

TLV 1 mg/m<sup>3</sup>**\*Additional information:** The lists that were valid during the compilation were used as basis.**\*Personal protective equipment****\*General protective and hygienic measures** Wash hands during breaks and at the end of the work.**\*Breathing equipment:** Not required.**\*Protection of hands:** Not required.**\*Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**\*Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**\*Eye protection:** Not required.**\*Body protection:** Protective work clothing.**\*General Information**

<b>Form:</b>	Powder
<b>Colour:</b>	Gold coloured
<b>Smell:</b>	Characteristic

**\*Change in condition****Melting point/Melting range:** Not determined**Boiling point/Boiling range:** > 999°C**\*Flash point:** Not applicable**\*Inflammability (solid, gaseous)** Flammable.(Contd. on page 3)  
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\*Self-inflammability: Product is not selfigniting.  
 \*Danger of explosion: Product is not explosive.  
 \*Density at 20°C 8.96 g/cm3  
 \*Settled apparent density at 20°C 0.6-0.7 g/cm3  
 \*Solubility in / Miscibility with  
 Water: Insoluble  
 \*Solvent content:  
 Organic solvents: 0.0 %

\*Thermal decomposition / conditions to be avoided:  
 No decomposition if used and stored according to specifications.  
 \*Dangerous reactions No dangerous reactions known  
 \*Dangerous products of composition: No dangerous decomposition products known

\*Acute toxicity:  
 \*Primary irritant effect:  
 \*on the skin: No irritant effect.  
 \*on the eye: No irritant effect.  
 \*Sensitization: No sensitizing effect known.

\*General notes: Generally not hazardous for water.

\*Product:  
 \*Recommendation  
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
 \*European waste catalogue  
 17 04 01 copper, bronze, brass  
 \*Uncleaned packagings:  
 \*Recommendation: Disposal must be made according to official regulations.

\*Land transport ADR/RID and GGVS/GGYE (cross-border/domestic)



\*ADR/RID-GGVS/E Class: 4.1 Flammable solids.  
 \*Kemler Number: 40  
 \*UN-Number: 3089  
 \*Packaging group: II

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Trade name: GOLD BRONZE POWDER VP/50051

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\*Label 4.1

\*Maritime transport IMDG/GGVSea:



\*IMDG/GGVSea Class: 4.1  
 \*UN Number: 3089  
 \*Label 4.1  
 \*Packaging group: II  
 \*EMS Number: 4.1-02  
 \*Correct technical name: METAL POWDER, FLAMMABLE, N.O.S.  
 \*Air transport ICAO-TI and IATA-DGR:



\*ICAO/IATA Class: 4.1  
 \*UN/ID Number: 3089  
 \*Label 4.1  
 \*Packaging group: II  
 \*Correct technical name: METAL POWDER, FLAMMABLE, N.O.S.

**\*Designation according to EC guidelines:**

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

**\*Risk phrases:**

10 Flammable.

**\*Safety phrases:**

7/8 Keep container tightly closed and dry.  
 43 In case of fire, use sand. Never use water.

**\*National regulations**

\*Water hazard class: Generally not hazardous for water.

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**\*Relevant R-phrases**

10 Flammable.

\*Department issuing data specification sheet: Department QSB

\*Contact: Dipl.-Ing.(FH) Milsterfer