

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

- 1.1 Product identifier
- Trade name: **LM 2383 gold**
- Article number: 100000001177 **Folia articleno.: 1819 and 1829 - paint marker - gold**
- Registration number
The ingredients of this product meet the criteria of the Regulation 1907/2006/EC (REACH).
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
Currently no such applications are identified.
- Application of the substance / the mixture pigmented Paintmarker Ink
- 1.3 Details of the supplier of the safety data sheet

Max Bringmann KG
Qualitätsmanagement
Johann-Höllfritsch-Str. 37
D- 90530 Wendelstein

E-Mail: qualitaetsmanagement@folia.de

emergency number: +49 9129 277 - 0

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.

- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.
- Hazard pictograms



GHS02



GHS07



GHS09

- Signal word **Warning**
- Hazard-determining components of labelling:
1-methoxy-2-propanol
- Hazard statements
H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H410 Very toxic to aquatic life with long lasting effects.
- Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

Trade name: LM 2383 gold

(Contd. of page 1)

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

• Dangerous components:

CAS: 107-98-2 EINECS: 203-539-1 Reg.nr.: 01-2119457435-35	1-methoxy-2-propanol Flam. Liq. 3, H226; STOT SE 3, H336	50-100%
CAS: 7440-50-8 EINECS: 231-159-6 Reg.nr.: 01-2119480154-42	copper flakes (coated with aliphatic acid) Acute Tox. 3, H331; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Eye Irrit. 2, H319	10-25%
CAS: 7440-66-6 EINECS: 231-175-3 Reg.nr.: 01-2119467174-37	zinc powder -zinc dust (stabilized) Aquatic Acute 1, H400; Aquatic Chronic 1, H410	2.5-10%

- Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents:
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- 5.3 Advice for firefighters
- Protective equipment: No special measures required.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Wear protective clothing.
- 6.2 Environmental precautions:
Inform respective authorities in case of seepage into water course or sewage system.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- 6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.

(Contd. on page 3)

Trade name: LM 2383 gold

(Contd. of page 2)

- Prevent formation of aerosols.
- Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- 7.2 Conditions for safe storage, including any incompatibilities**
- Storage:**
- Requirements to be met by storerooms and receptacles:** No special requirements.
- Information about storage in one common storage facility:** Not required.
- Further information about storage conditions:**
Keep container tightly sealed.
Protect from heat and direct sunlight.
- Storage class:** 3
- 7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities:** No further data; see item 7.
- 8.1 Control parameters**
- Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information:** The lists valid during the making were used as basis.
- 8.2 Exposure controls**
- Personal protective equipment:**
- General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
If only a short-term loading of the glove material by splashes is expected, tricoted gloves with higher wearability for the better acceptance of the users are recommended.
- 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Nitrile rubber, NBR
- 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:**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties**
- General Information**
- Appearance:**
- Form:** Fluid
- Colour:** gold
- Odour:** Alcohol-like
- Odour threshold:** Not determined.
- Important information on protection of health and environment, and on safety.** -

(Contd. on page 4)

Trade name: LM 2383 gold

(Contd. of page 3)

· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	120 °C
· Flash point:	31 °C
· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	287 °C
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1.7 Vol %
Upper:	11.5 Vol %
· Vapour pressure at 20 °C:	13.3 hPa
· Density at 20 °C:	1.1 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic at 20 °C:	10 mPas
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	62.9 %
Solids content:	37.0 %
· 9.2 Other information	The physical and chemical properties given in Section 9.1 are rough data only, which are partially derived from the component's data of the mixture. These data are no binding product specifications.

SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.
- Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation
Causes serious eye irritation.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure
May cause drowsiness or dizziness.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

Trade name: LM 2383 gold

(Contd. of page 4)

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- | | |
|--|---|
| • 14.1 UN-Number | |
| • ADR, IMDG, IATA | UN1263 |
| • 14.2 UN proper shipping name | |
| • ADR | 1263 PAINT, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS |
| • IMDG | PAINT (Gold bronze powder, Copper metal powder), MARINE POLLUTANT |
| • IATA | PAINT |
| • 14.3 Transport hazard class(es) | |
| • ADR | |
| | |
| • Class | 3 (F1) Flammable liquids. |
| • Label | 3 |
| • IMDG | |
| | |
| • Class | 3 Flammable liquids. |
| • Label | 3 |
| • IATA | |
| | |
| • Class | 3 Flammable liquids. |
| • Label | 3 |

(Contd. on page 6)
EU

Trade name: LM 2383 gold

(Contd. of page 5)

<ul style="list-style-type: none"> • 14.4 Packing group • ADR, IMDG, IATA 	<p>III</p>
<ul style="list-style-type: none"> • 14.5 Environmental hazards: • Marine pollutant: • Special marking (ADR): 	<p>Product contains environmentally hazardous substances: copper flakes (coated with aliphatic acid)</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
<ul style="list-style-type: none"> • 14.6 Special precautions for user • Danger code (Kemler): • EMS Number: • Stowage Category 	<p>Warning: Flammable liquids.</p> <p>30</p> <p>F-E, S-E</p> <p>A</p>
<ul style="list-style-type: none"> • 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	<p>Not applicable.</p>
<p>• Transport/Additional information:</p>	
<ul style="list-style-type: none"> • ADR • Limited quantities (LQ) • Excepted quantities (EQ) • Transport category • Tunnel restriction code 	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p> <p>3</p> <p>D/E</p>
<ul style="list-style-type: none"> • IMDG • Limited quantities (LQ) • Excepted quantities (EQ) 	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> • UN "Model Regulation": 	<p>UN 1263 PAINT, 3, III, MARINE POLLUTANT/ ENVIRONMENTALLY HAZARDOUS</p>

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category
 - E2 Hazardous to the Aquatic Environment
 - P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- National regulations:
- Technical instructions (air):

Class	Share in %
III	10-25
NK	50-100
- Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
 - H226 Flammable liquid and vapour.
 - H302 Harmful if swallowed.
 - H319 Causes serious eye irritation.
 - H331 Toxic if inhaled.
 - H336 May cause drowsiness or dizziness.
 - H400 Very toxic to aquatic life.
 - H410 Very toxic to aquatic life with long lasting effects.
- Abbreviations and acronyms:
 - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 - ICAO: International Civil Aviation Organisation
 - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 - IMDG: International Maritime Code for Dangerous Goods
 - IATA: International Air Transport Association
 - GHS: Globally Harmonised System of Classification and Labelling of Chemicals

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC,

Page 7/7
Printing date 08.04.2020
Revision: 08.04.2020
Version number 29

Trade name: **LM 2383 gold**

(Contd. of page 6)

EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids - Category 3
Acute Tox. 4: Acute toxicity - oral - Category 4
Acute Tox. 3: Acute toxicity - inhalation - Category 3
Eye Irrit. 2: Serious eye damage/eye irritation - Category 2
STOT SE 3: Specific target organ toxicity (single exposure) - Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1

• *** Data compared to the previous version altered.**

EU