Telefax: +49 941 / 29020593



Safety Data Sheet

according to UK REACH Regulation

Bronze color

Revision date: 03.05.2023 Product code: 0251 Page 1 of 12

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

1.1. Product identifier

Bronze color

UFI: VN4E-DQNF-D00K-QVY4

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

Use of the substance/mixture

Effect paint

Uses advised against

Use restriction according to REACH annex XVII, no.: 40 (especially spray applications for decoration purposes at festive occasions)

1.3. Details of the supplier of the safety data sheet

Company name: MARAWE GmbH & Co. KG

Street: Donaustaufer Str. 378 - Gebäude 64

Place: D-93055 Regensburg
Telephone: +49 941 / 29020439

e-mail: info@marawe.de

Contact person: Product safety department

Internet: www.marawe.de **1.4. Emergency telephone** +49 941 / 29020439,

<u>number:</u> Mon-Thu 9:00 - 16:00; Fri 9:00 - 14:00

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 3; H226 Acute Tox. 4; H302 Eye Irrit. 2; H319 STOT SE 3; H336 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

1-methoxy-2-propanol copper powder

Signal word: Warning

Pictograms:







Hazard statements

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.

H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

H410 Very toxic to aquatic life with long lasting effects.



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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

smokina.

P243 Take action to prevent static discharges.
P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire: Use Fire extinguishing agent to extinguish.

P391 Collect spillage.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container to an appropriate recycling or disposal facility according to

local/national regulations.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name				
	EC No	Index No	REACH No		
	Classification (GB CLP Regulation)				
107-98-2	1-methoxy-2-propanol			60 - < 65 %	
	203-539-1	603-064-00-3	01-2119457435-35		
	Flam. Liq. 3, STOT SE 3; H226 H3	36			
7440-50-8	copper powder			25 - < 30 %	
	231-159-6				
	Acute Tox. 4, Eye Irrit. 2, Aquatic A	9 H400 H410			
7440-66-6	zinc powder		5 - < 10 %		
	231-175-3		01-2119467174-37		
	Aquatic Acute 1, Aquatic Chronic 1				
1589-47-5	2-methoxypropanol			< 1 %	
	216-455-5				
	Flam. Liq. 3, Repr. 1B, Skin Irrit. 2,	Eye Dam. 1, STOT SE 3; H226 H36	0D H315 H318 H335		
80-62-6	methyl methacrylate		< 1 %		
	201-297-1				
	Flam. Liq. 2, Skin Irrit. 2, Skin Sens. 1, STOT SE 3; H225 H315 H317 H335				

Full text of H and EUH statements: see section 16.



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Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. L	imits, M-factors and ATE	
107-98-2	203-539-1	1-methoxy-2-propanol	60 - < 65 %
	inhalation: LC5	0 = >20 mg/l (vapours); dermal: LD50 = 13500 mg/kg; oral: LD50 = 4016 mg/kg	
7440-50-8	231-159-6	copper powder	25 - < 30 %
	oral: ATE = 500 M chron.; H410) mg/kg M acute; H400: M=10 M=10	
7440-66-6	231-175-3	zinc powder	5 - < 10 %
	M acute; H400: M chron.; H410		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove clothing contaminated with product.

After inhalation

Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If irritation symptoms persist, consult a doctor.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth immediately and drink 1 glass of of water. Medical treatment necessary.

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

Irritant effect on skin, eyes and respiratory organs. May cause headache, drowsiness and nausea.

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

Treat symptomatically.

In case of ingestion or inhalation of large quantities, contact the Poison Control Centre specialist immediately.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO2), Foam, Extinguishing powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Flammable. Vapours can form explosive mixtures with air. Carbon monoxide may be produced if combustion is incomplete. The vapour is heavier than air and may travel along the ground; distant ignition possible.

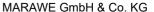
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or





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surface water. Cool down closed recipients exposed to fire or high temperatures, if possible, from a safe distance with a water spray (risk of explosion) and safely remove from the danger zone.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Keep unprotected persons away. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Provide adequate ventilation as well as local exhaustion at critical locations.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow uncontrolled discharge of product into the environment. In case of release of larger quantities, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe qas/fumes/vapour/spray. Avoid prolonged or repeated contact with the skin.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

7.3. Specific end use(s)

Effect paint

SECTION 8: Exposure controls/personal protection

8.1. Control parameters



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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
107-98-2	1-Methoxypropan-2-ol	100	375		TWA (8 h)	WEL
		150	560		STEL (15 min)	WEL
7440-50-8	Copper, dusts and mists (as Cu)	-	1		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL
80-62-6	Methyl methacrylate	50	208		TWA (8 h)	WEL
		100	416		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
107-98-2	1-methoxy-2-propanol			
Consumer DNEL, long-term		oral	systemic	33 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	183 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	78 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	369 mg/m³
Worker DNEL, acute		inhalation	systemic	553,5 mg/m³
Consumer DNEL, long-term		inhalation	systemic	43,9 mg/m³

PNEC values

CAS No	Substance		
Environmen	Environmental compartment		
107-98-2	1-methoxy-2-propanol		
Freshwater		10 mg/l	
Freshwater (intermittent releases)		100 mg/l	
Freshwater sediment		52,3 mg/kg	
Marine sediment		5,2 mg/kg	
Micro-organisms in sewage treatment plants (STP)		100 mg/l	
Soil		4,59 mg/kg	

8.2. Exposure controls







Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing protective goggles (DIN EN 166).

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is



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recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The following data applies to: 1-methoxypropan-2-ol Recommended material: Butyl caoutchouc (butyl rubber)

Thickness of the glove material: 0.5 mm

Breakthrough time: > 480 min

The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a quide.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: bronze
Odour: ether-like

Changes in the physical state

Melting point/freezing point:

Boiling point or initial boiling point and

> 120 °C

boiling range:

Flash point: > 31 °C

Flammability

Solid/liquid: not applicable
Gas: not applicable

Explosive properties

The product is not: Explosive.

Lower explosion limits: > 1,5 vol. %
Upper explosion limits: < 13,7 vol. %

Self-ignition temperature

Solid: not applicable
Gas: not applicable
Decomposition temperature: not determined
pH-Value: not determined
Water solubility: not determined

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

Vapour pressure: > 11,5 hPa

(at 20 °C)

Density (at 20 °C): 1,2 - 1,3 g/cm³





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Relative vapour density: not determined

9.2. Other information

Information with regard to physical hazard classes

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Solid content: not determined

Evaporation rate: not determined

Further Information

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Peroxide formation possible with air oxygen.

Violent reaction with: Oxidizing agent

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

10.5. Incompatible materials

Strong acid, strong base, Oxidizing agent

10.6. Hazardous decomposition products

metal oxide vapours, Carbon monoxide (CO), Carbon dioxide (CO2).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

Harmful if swallowed.

ATEmix calculated

ATE (oral) 1785,7 mg/kg

CAS No	Chemical name						
	Exposure route	Dose		Species	Source	Method	
107-98-2	1-methoxy-2-propanol	1-methoxy-2-propanol					
	oral	LD50 mg/kg	4016	Rat	Manufacturer		
	dermal	LD50 mg/kg	13500	Rabbit	Manufacturer		
	inhalation (4 h) vapour	LC50	>20 mg/l	Rat	Manufacturer		
7440-50-8	copper powder						
	oral	ATE mg/kg	500				

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.



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Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause drowsiness or dizziness. (1-methoxy-2-propanol)

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.

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

CAS No	Chemical name	Chemical name					
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
107-98-2	1-methoxy-2-propanol						
	Acute fish toxicity	LC50 mg/l	>4000	96 h	Leuciscus idus (golden orfe)	Manufacturer	
	Acute crustacea toxicity	EC50 mg/l	23300		Daphnia magna (Big water flea)	Manufacturer	
7440-50-8	copper powder						
	Acute fish toxicity	LC50 mg/l	0,02	96 h	Oncorhynchus tshawytscha (Chinook salmon)	Pre-supplier/manu facturer	
	Acute crustacea toxicity	EC50 mg/l	0,0016	48 h	Ceriodaphnia dubia	Pre-supplier/manu facturer	
	Fish toxicity	NOEC mg/l	0,00743	4 d	Salmo trutta (Brown trout)	Pre-supplier/manu facturer	
7440-66-6	zinc powder						
	Acute fish toxicity	LC50 mg/l	0,24	96 h	Oncorhynchus mykiss (Rainbow trout)	Pre-supplier/manu facturer	
	Acute crustacea toxicity	EC50 mg/l	0,34	48 h	Americamysis bahia	Pre-supplier/manu facturer	
	Fish toxicity	NOEC mg/l	0,00972	4 d	Salmo trutta (Brown trout)		

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation		-	-
107-98-2	1-methoxy-2-propanol			
	DOC reduction	> 70%		Pre-supplier/manufactur er

12.3. Bioaccumulative potential

The product has not been tested.



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Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
107-98-2	1-methoxy-2-propanol	0,43

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF

COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish

containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - used product

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF

COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish

containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: UN 3092

1-METHOXY-2-PROPANOL

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



Classification code: F1
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3



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Hazard No: 30
Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 3092

14.2. UN proper shipping name: 1-METHOXY-2-PROPANOL

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



Classification code: F1
Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 3092

14.2. UN proper shipping name: 1-METHOXY-2-PROPANOL

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



Special Provisions:

Limited quantity:

Excepted quantity:

EmS:

5 L

E1

F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 3092

14.2. UN proper shipping name: 1-METHOXY-2-PROPANOL

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



Limited quantity Passenger: 10 L
Passenger LQ: Y344
Excepted quantity: E1

IATA-packing instructions - Passenger:355IATA-max. quantity - Passenger:60 LIATA-packing instructions - Cargo:366IATA-max. quantity - Cargo:220 L

14.6. Special precautions for user

Warning: Combustible liquid.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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





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EU regulatory information

Restrictions on use (REACH, annex XVII): Entry 3, Entry 30, Entry 40, Entry 75

Information according to 2012/18/EU

(SEVESO III):

E1 Hazardous to the Aquatic Environment

Additional information: P5c

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC).

Water hazard class (D): 3 - highly hazardous to water

15.2. Chemical safety assessment

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

SECTION 16: Other information

Abbreviations and acronyms

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 Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate LL50: Lethal loading, 50% EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic vPvB: very persistent, very bioaccumulative

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container VOC: Volatile Organic Compounds SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at http://abbrev.esdscom.eu



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Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Acute Tox. 4; H302	Calculation method
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H336	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360D	May damage the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)