according to Regulation (EC) No 1907/2006

	Rose gold additive		
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SECTION 1: Identification of th	e substance/mixture and of the company	//undertaking	
1.1. Product identifier			
Rose gold additive			
UFI:	6HQ5-7A46-U003-5QVC		
1.2. Relevant identified uses of th	e substance or mixture and uses advised aga	ainst	
Use of the substance/mixture			
Galvanic copper-plating			
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:	0941 / 29020439	Telefax: 0941 / 29020593	
e-mail:	info@marawe.de		
Contact person:	Dr. Peter Raster, Dr. Stefan		
	Weiss, Dr. Jonas Mark		
e-mail:	info@marawe.de		
Internet:	www.marawe.de		
SECTION 2: Hazards identifica	tion		
0.4. Classification of the substant			
2.1. Classification of the substance	<u>ce or mixture</u>		
Regulation (EC) No. 1272/2008			

Hazard categories: Skin corrosion/irritation: Skin Irrit. 2 Serious eye damage/eye irritation: Eye Irrit. 2 Hazardous to the aquatic environment: Aquatic Chronic 2 Hazard Statements: Causes skin irritation. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

Warning

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word:

Pictograms:



Hazard statements

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

ecautionary statemer	
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P337+P313	If eye irritation persists: Get medical advice/attention.	
P391	Collect spillage.	
P501	Dispose of contents/container to sachgerechter Entsorgung.	

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	lo Chemical name			
	EC No	Index No	REACH No	
	GHS Classification			
584-08-7	Potassiumcarbonat			15 - < 20 %
	231-665-7			
	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H315 H319 H335			
6381-92-6	EDTA Dinatriumsalz Dihydrat			
	205-358-3			
	Acute Tox. 4, STOT RE 2	H332 H373	•	
7758-98-7	copper sulphate			5 - < 10 %
	231-847-6	029-004-00-0		
	Acute Tox. 4, Skin Irrit. 2, H410	Eye Irrit. 2, Aquatic Acute 1, Aquat	c Chronic 1; H302 H315 H319 H400	

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity			
	Specific Conc.	Specific Conc. Limits, M-factors and ATE				
6381-92-6	205-358-3	EDTA Dinatriumsalz Dihydrat	5 - < 10 %			
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: LD50 = 2800 mg/kg					
7758-98-7	231-847-6	copper sulphate	5 - < 10 %			
	oral: LD50 = 300 mg/kg					

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

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 plenty of water.

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

No information available.

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (e.g. 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

No special measures are necessary.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

Hints on joint storage

No special measures are necessary.

7.3. Specific end use(s)

Electroplating

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

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Protective and hygiene measures

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 or drink.

Eye/face protection

Suitable eye protection: goggles.

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

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: Colour:	Liquid blue	
pH-Value (at 25 °C):		11
Changes in the physical state		
Melting point:		not determined
Boiling point or initial boiling point and boiling range:		not determined
Flash point:		not determined
Flammability		
Solid/liquid:		not applicable
Gas:		not applicable
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Self-ignition temperature		
Solid:		not applicable
Gas:		not applicable
Decomposition temperature:		not determined
Oxidizing properties Not oxidising.		
Vapour pressure:		not determined
Density:		not determined
Water solubility:		easily soluble
Solubility in other solvents not determined		
Partition coefficient n-octanol/water:		not determined
Relative vapour density:		not determined
Evaporation rate:		not determined

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	Fage 5 01 9
not determined	
	not determined

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Reacts strongly with acids

10.4. Conditions to avoid

Hitze

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

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

Acute toxicity

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

CAS No	Chemical name						
	Exposure route	Dose		Species	Source	Method	
6381-92-6	EDTA Dinatriumsalz Dihydrat						
	oral	LD50 mg/kg	2800	Rat	C. Roth		
	inhalation vapour	ATE	11 mg/l				
	inhalation aerosol	ATE	1,5 mg/l				
7758-98-7	copper sulphate	-		-			
	oral	LD50 mg/kg	300	Rat	IUCLID		

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

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

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

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].

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SECTION 12: Ecological information

12.1. Toxicity

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

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
7758-98-7	copper sulphate						
	Acute fish toxicity	LC50	0,11 mg/l		· · · , · · ·	ECOTOX Database	

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

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

060313 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of salts and their solutions and metallic oxides; solid salts and solutions containing heavy metals; hazardous waste

List of Wastes Code - used product

060313 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of salts and their solutions and metallic oxides; solid salts and solutions containing heavy metals; hazardous waste

List of Wastes Code - contaminated packaging

060313 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of salts and their solutions and metallic oxides; solid salts and solutions containing heavy metals; 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)

<u>14.1. UN number:</u>	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9

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Classification code:	M6	
Special Provisions:	274 335 601	
Limited quantity:	5 L	
Transport category: Hazard No:	3	
Tunnel restriction code:	90 E	
Other applicable information (land trans Excepted quantities: E1	_	
Inland waterways transport (ADN)		
14.1. UN number:	UN 3082	
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	
14.3. Transport hazard class(es):	9	
14.4. Packing group:		
Hazard label:	9	
Classification code:	9 M6	
Special Provisions:	274 335 601	
Limited quantity:	5 L	
Other applicable information (inland wa Excepted quantities: E1	aterways transport)	
Marine transport (IMDG)		
14.1. UN number:	UN 3082	
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	
14.3. Transport hazard class(es):	9	
14.4. Packing group:		
Hazard label:	9	
Special Provisions:	274, 335	
Limited quantity:	5 L	
EmS:	F-A, S-F	
Other applicable information (marine tr Excepted quantities: E1	ansport)	
Air transport (ICAO-TI/IATA-DGR)		
<u>14.1. UN number:</u>	UN 3082	
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	
14.3. Transport hazard class(es):	9	
14.4. Packing group:	11	
Hazard label:	9	
Special Provisions:	A97 A158	
Limited quantity Passenger:	30 kg G	
IATA-packing instructions - Passenger:	964	
IATA-max. quantity - Passenger:	450 L	
IATA-packing instructions - Cargo: IATA-max. quantity - Cargo:	964 450 L	
Other applicable information (air transp Passenger-LQ: Y964 Excepted quantities: E1	port)	
14.5. Environmental hazards		
ENVIRONMENTALLY HAZARDOUS:	Yes	
LIVINUNIVIENTALLI HAZAKUUUS.	100	

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14.6. Special precautions for user		
No information available.		
14.7. Maritime transport in bulk acco	rding to IMO instruments	
not applicable		
SECTION 15: Regulatory informat	lion	
15.1. Safaty health and any ironment	al regulations/legislation specific for the substance or mixtur	٥
15.1. Salety, fieatti and environmenta	a regulations/legislation specific for the substance of mixtur	<u>c</u>
EU regulatory information		<u> </u>
		<u>-</u>
EU regulatory information		<u>-</u>
EU regulatory information Restrictions on use (REACH, anne)		<u>-</u>
EU regulatory information Restrictions on use (REACH, annex Entry 3		_
EU regulatory information Restrictions on use (REACH, annex Entry 3 National regulatory information	x XVII): Observe restrictions to employment for juveniles accor	_
EU regulatory information Restrictions on use (REACH, annex Entry 3 National regulatory information Employment restrictions:	x XVII): Observe restrictions to employment for juveniles accor work protection guideline' (94/33/EC).	_

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% Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
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.
H411	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.

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