SECTION 1: IDENTIFICATION OF SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier

Tradename: MIXOL®ME 1Gold

UFI: YP7D-620N-E00J-PUY1

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

Relevante identified uses of the substance or mixture

Industry sector: Industrial Performance Chemicals
Paints, lacquers and varnishes industry
Polymers industry
Printing Inks Industry

Type of use: Colourant preparation

1.3. Details of the supplier of the safety data sheet

Identification of the company:

MIXOL-PRODUKTE
Diebold GmbH
Carl-Zeiss-Str. 17-19
73230 Kirchheim/Teck
Phone: 0049 / 7021 / 950090
Fax: 0049 / 7021 / 56030

Information to substance / mixture:

Division: Technics
Phone: +49(0)7021 / 950090
E-mail: Technik@mixol.de

1.4. Emergency telephone number

GBK Gefahrgut Büro GmbH, Ingelheim, Germany
Emergency CONTACT (24h): +49 6132-84463

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance / mixture

Classification (REGULATION (EC) No 1272/2008):

Acute toxicity, Catergory 4	H302 Harmful if swallowed
Eye irritation, Category 2	H319 Causes serious eye irritation
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Short-term (acute) aquatic hazard, Category 1	H400 Very toxic to aquatic life
Long-term (chronic) aquatic hazard, Category 1	H410 Very toxic to aquatic life with long lasting effects

2.2. Label elements

Labeling (REGULATION (EC) No 1272/2008):

Hazard pictograms :

Signal word: Warning

Hazard statements:

H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P261	Avoid breathing mist or vapours .
P264	Wash skin thoroughly after handling.
P273	Avoide release to the environment.
P280	Wear rotective gloves/ eye protection/ face protection.

Response:

P333 + P313	If skin irritation or rash occurs: Get medical advice / attention.
P391	Collect spillage.

Disposal:

P501	Dispose of contents / container to an approved waste disposal plant.

Hazard components which must be listed on the label:
Copper
1,2-benzisothiazol-3(2H)-one
maleic anhydride
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION / INFORMATION TO INGREDIENTS

3.1. Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. INDEX No. Registration No.	Classification (Regulation (EC) Nr. 1272/2008)	Concentration (%w/w)
Copper	7440-50-8 231-159-6 01-2119480154-42	Acute Tox. 4; H302 Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	≥ 25 - < 50
Zinc powder – zinc dust (stabilized)	7440-66-6 231-175-3 030-001-01-9 01-2119467174-37	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	≥ 2,5 - < 10
salt of polyamineamide,	Not Assigned	Skin Irrit. 2; H315	≥ 1 - < 10
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9 613-088-00-6	Acute Tox. 4; H302 Acute Tox. 2; H330 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 specific concentration limit	>= 0.0025 - < 0.025

		Skin Sens. 1; H317 >= 0.05 % Skin Sens. 1; H317 >= 0.05 %	
maleic anhydride	108-31-6 203-571-6 607-096-00-9	Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT RE 1; H372 specific concentration limit Skin Sens. 1A; H317 >= 0.001 % Skin Sens. 1A; H317 >= 0.001 %	>= 0.001 - < 0.1
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9 613-167-00-5	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100 specific concentration limit Skin Corr. 1B; H314 >= 0.6 % Skin Irrit. 2; H315 0.06 - < 0.6 % Eye Irrit. 2; H319 0.06 - < 0.6 % Skin Sens. 1; H317 >= 0.0015 % Eye Dam. 1; H318 >= 0.6 % Skin Corr. 1C; H314 >= 0.6 % Skin Irrit. 2; H315 0.06 - < 0.6 % STOT RE 2; H319 0.06 - < 0.6 % Skin Sens. 1A; H317 >= 0.0015 % Eye Dam. 1; H318 >= 0.6 %	>= 0.0002 - < 0.0015

For explanation of abbreviations see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Discription of first aid measures

General advice:
Move the victim to fresh air.

Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended

If inhaled:
If unconscious, place in recovery position and seek medical advice.
If symptoms persisit, call a physician.

In case of skin contact:
Wash of immediately with soap and a plenty of water.
If skin irritation persists, call a physician.
If on clothes, remove clothes.

In case of eye contact:
Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed:
Induce vomitig immediately and call a physician
Keep resperatory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

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

Risks:
Harmful if swallowed.
May cause an allergic skin reaction
Causes serious eye irritation.

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

This information is not available.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media:

Suitable extinguishing media:
Special powder against metal fire
Dry sand
ABC-Powder

Unsuitable extinguishing media:
Water
High volume water jet
Carbon dioxide (CO_2)

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting:
Do not allow run-off from fire fighting to enter drains or water courses.

5.3. Advice for firefighters

Special protective equipment for firefighters:
Wear self contained breathing apparatus for fire fighting if necessary.

Further information:
Standard procedure for chemical fires.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautious:
Evacuate personal to save areas.
Ensure adequate ventilation.
Use personal protective equipment.

6.2. Environment precautions

Environmental precautious:
The product should not be allowed to enter drains, water courses or the soil.

Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up:
Use mechanical handling equipment.

Pick up and transfer to properly labelled containers.
Do not flush with water.
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

For personal protection see Section 8.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling:
Do not breath vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating, drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion:
Keep away from heat an sources of ignition.
No smoking.

Normal measures for preventive fire protection.

Hygiene measures:
General industrial hygiene practice.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:
Keep away from sources of ignition - No smoking.
Do not store near combustible materials.
Keep containers tightly closed in a cool, well-ventilated place.
To maintain product quality, do not store in heat or direct sunlight.

Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions:

Protect from humidity and water.

Storage stability:
Storage stability of at least 24 month.

Advice on common storage:
Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
Do not store together with oxidizing and self-igniting products.

Dampness:
Keep in a dry, cool and well-ventilated place.

Further information on storage stability:
No decomposition if stored and applied as directed.

7.3. Specific end use(s)

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Occupational Exposure Limits

Components	CAS.No.:	Value type (Form of exposure)	Control-parameters	Basis (Version Date)
copper	7440-50-8	TWA (Fumes)	0,2 mg/m³ (Copper)	GB EH40
		TWA (Dusts and mists)	1 mg/m³ (Copper)	GB EH40
		STEL (Dusts and mists)	2 mg/m³ (Copper)	GB EH40
zinc powder - zinc dust (stabilized)	7440-66-6	TWA (Inhalable)	10 mg/m³	GB EH40
		TWA (Respirable fraction)	4 mg/m³	GB EH40
silicon dioxide	7631-86-9	TWA (inhalable dust)	6 mg/m³ (Silica)	GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis of respirable, thoracic and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg/m³ 8-hour TWA of inhalable dust or 4 mg/m³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits			

	should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.			
		TWA (Respirable dust)	2,4 mg/m³ (Silica)	GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg/m³ 8-hour TWA of inhalable dust or 4 mg/m³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.			
maleic anhydride	108-31-6	TWA	1 mg/m³	GB EH40
Further information	Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyper-responsiveness via an immunological irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance, sometimes even in tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyper-responsive. Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified as asthmagens or respiratory sensitisers. Further information can be found in the HSE publication Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma., Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced to as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma., The 'Sen'			

	notation in the list of WELs has been assigned only to those substances which may cause occupational asthma in the categories shown in Table 1. It should be remembered that other substances not in these tables may cause occupational asthma. HSE's asthma web pages (www.hse.gov.uk/asthma) provide further information.			
		STEL	3 mg/m³	GB EH40
Further information	Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyper-responsiveness via an immunological irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance, sometimes even in tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyper-responsive. Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified as asthmagens or respiratory sensitisers. Further information can be found in the HSE publication Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma., Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced to as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma., The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma in the categories shown in Table 1. It should be remembered that other substances not in these tables may cause occupational asthma. HSE's asthma web pages (www.hse.gov.uk/asthma) provide further information.			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	**End Use**	**Exposure routes**	**Potential health effects**	**Value**
copper	Workers	Skin contact	Long-term – systemic effects	137 mg/kg
	Workers	Skin contact	Acute systemic – effects	273 mg/kg
	Workers	Inhalation	Long-term – systemic effects	20 mg/m³
	Consumers	Inhalation	Long-term – local effects	1 mg/m³
	Consumers	Inhalation	Acute local effects	1 mg/m³
	Consumers	Skin contact	Long-term – systemic effects	137 mg/kg

	Consumers	Skin contact	Acute systemic – effects	273 mg/kg
	Consumers	Ingestion	Long-term – systemic effects	0.041 mg/kg
zinc powder - zinc dust (stabilized)	Workers	Inhalation	Long term – systemic effects	5 mg/m^3
	Workers	Skin contact	Long term – systemic effects	83 mg/kg
	Consumers	Inhalation	Long term – systemic effects	2.5 mg/m^3
	Consumers	Skin contact	Long term – systemic effects	83 mg/kg
	Consumers	Ingestion	Long term – systemic effects	0.83 mg/kg
silicon dioxide	Workers	Inhalation	Long term – systemic effects	4 mg/m^3
1,2-benzisothiazol-3(2H)-one	Workers	Inhalation	Long term – systemic effects	6.81 mg/m^3
	Workers	Skin contact	Long term – systemic effects	0.966 mg/kg
	Consumers	Inhalation	Long term – systemic effects	1.2 mg/m^3
	Consumers	Skin contact	Long term – systemic effects	0.345 mg/kg
maleic anhydride	Workers	Inhalation	Acute systemic effects	0.8 mg/m^3
	Workers	Inhalation	Acute local effects	0.8 mg/m^3
	Workers	Inhalation	long term – systemic and local effects	0.4 mg/m^3
	Workers	Skin contact	long term – systemic and local effects	0.04 mg/kg
	Workers	Skin contact	Acute systemic effects	0.04 mg/kg
	Workers	Skin contact	Acute local effects	0.04 mg/kg
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Workers	Inhalation	Long-term local effects	0.02 mg/m^3
	Workers	Inhalation	Acute local effects	0.04 mg/m^3
	Consumers	Inhalation	Long-term local effects	0.02 mg/m^3

	Consumers	Inhalation	Acute local effects	0.04 mg/m3
	Consumers	Ingestion	Long-term local effects	0.090 mg/kg
	Consumers	Ingestion	Acute local effects	0.11 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	**Environmental Compartment**	**Value**
copper	Fresh water	0.0078 mg/l
	Marine water	0.0052 mg/l
	STP	0.230 mg/l
	Fresh water sediment	87 mg/kg
	Marine sediment	676 mg/kg
	Soil	65 mg/kg
zinc powder - zinc dust (stabilized)	Fresh water	0.0206 mg/l
	Marine water	0.0061 mg/l
	STP	0.100 mg/l
	Fresh water sediment	235.6 mg/kg
	Marine sediment	121 mg/kg
	Soil	35.6 mg/kg
1,2-benzisothiazol-3(2H)-one	Fresh water	0.00403 mg/l
	Marine water	0.000403 mg/l
	STP	0.00103 mg/l
	Intermittent water release	0.0011 mg/l
	Intermittent Release	0.00011 mg/l
	Fresh water sediment	0.0499 mg/kg
	Marine sediment	0.00499 mg/kg
	Soil	3 mg/kg
maleic anhydride	Fresh water	0.04281 mg/l
	Fresh water sediment	0.344 mg/kg
	Marine water	0.004281 mg/l
	Marine sediment	0.0334 mg/kg
	Soil	0.0415 mg/l
	periodical Release	0.4281 mg/l
	STP	44.6 mg/l
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Fresh water	0.00339 mg/l

	Intermittent water release	0.00339 mg/l
	Marine water	0.00339 mg/l
	Intermittent Release	0.00339 mg/l
	STP	0.23 mg/l
	Soil	0.0471 mg/kg
	Fresh water sediment	0.027 mg/kg
	Marine sediment	0.027 mg/kg
	Soil	0.01 mg/kg

8.2. Exposure contols

Personal protective equipment

Eye/face protection:
Safety glasses
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection

Material:	Solvent-resistant gloves (butyl-rubber)
Remarks:	Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). The exact break through time can be obtained from the protective glove producer and this has to be observed. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Recommended preventive skin protection. Skin should be washed after contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection:
Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection:
Use suitable breathing protection if workplace concentration requires.
Equipment should conform to EN 14387

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Appearance

Physical state:	liquid
Colour:	gold
Odour:	characteristic
Odour Threshold:	No data available
Freezing point:	No data available
Boiling point/boiling range:	> 100 °C
Flammability :	No data available
Upper explosion limit / Upper flammability limit:	No data available

Lower explosion limit / Lower flammability limit:	No data available
Flash point	> 100 °C
Auto-ignition temperature:	Not relevant
Decomposition temperature :	No data available
pH:	substance/mixture is non-soluble (in water)
Viscosity, kinematic :	No data available
Solubility(ies)	
Water solubility:	partly insoluble
Solubility in other solvents:	No data available
Partition coefficient:	
n-octanol/water:	No data available
Vapour pressure :	No data available
Relative density :	No data available
Density :	No data available
Relative vapour density:	No data available
Particle Size Distribution:	No data available

9.2. Other information
No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
No decomposition if stored and applied as directed.

10.2. Chemical Stability
No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions
Hazardous reactions:
Stable under recommended storage conditions.
No decomposition if stored and applied as directed.

10.4. Conditions to avoid
Do not allow evapouration to dryness.

10.5. Incompatible Materials
No data available.

10.6. Hazardous decomposition products
Thermal decomposition:
Carbon monoxide, carbon dioxide, and unburned hydrocarbons (smoke).

SECTION 11: TOXICOLOGIC INFORMATION

11.1. Information on toxicological effects

Acute Toxicity
Harmful if swallowed

Product:
Acute oral toxicity : Acute toxicity estimate: 1,227 mg/kg
Method: Calculation method

Components:

Copper:
Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

zinc powder — zinc dust (stabilised):
Acute oral toxicity : (Rat): > 2,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 5.41 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

1,2-benzisothiazol-3(2H)-one:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat): 0.4 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The component/mixture is highly toxic after short term inhalation.

maleic anhydride:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1):

Acute oral toxicity : Assessment: The component/mixture is toxic after single ingestion.

Acute inhalation toxicity : Assessment: The component/mixture is highly toxic after short term inhalation.

Acute dermal toxicity : Assessment: The component/mixture is highly toxic after single contact with skin.

Skin corrosion/irritation
Not classified based on available information.

Product:
Remarks: May cause skin irritation and/or dermatitis.

Components:

Copper:
Remarks: May cause skin irritation in susceptible persons.

1,2-benzisothiazol-3(2H)-one:
Result: Skin irritation

maleic anhydride:
Result: Sever skin irritation

Serious eye damage/eye irritation
Causes serious eye irritation.

Product:
Remarks: May cause irreversible eye damage

Components:

Copper:
Result: Eye irritation

1,2-benzisothiazol-3(2H)-one:
Result: Corrosive

maleic anhydride:
Result: Irreversible effects on the eye

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1):
Result: Corrosive

Respiratory or skin sensitisation

Skin sensitisation
May cause an allergic skin reaction.

Respiratory sensitisation
Not classified based on available information.

Components:

1,2-benzisothiazol-3(2H)-one:
Result: May cause sensitisation by skin contact.

maleic anhydride:
Assessment: May cause sensitisation by skin contact
Assessment: Probability or evidence of high respiratory sensitisation rate in humans

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

Reproductive toxicity
Not classified based on available information.

STOT - single exposure
Not classified based on available information.

STOT - repeated exposure
Not classified based on available information.

Components:

maleic anhydride:
Assessment: Causes damage to organs through prolonged or repeated exposure

Aspiration toxicity
Not classified based on available information.

11.2. Information on other hazards
Further information

Product:
Remarks: No data available

Components:

Copper:
Remarks: No data available

zinc powder — zinc dust (stabilised):
Remarks: No data available

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

Components:

Copper:

M-Factor (Short-term (acute) aquatic hazard) : 10

M-Factor (Long-term (chronic) aquatic hazard) : 10

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

Long-term (chronic) aquatic hazard : Very toxic to aquatic life with long lasting effects.

zinc powder — zinc dust (stabilised):

Ecotoxicology Assessment

Aacute aquatic hazard : Very toxic to aquatic life.

Chronic aquatic hazard : Very toxic to aquatic life with long lasting effects.

1,2-benzisothiazol-3(2H)-one:

Ecotoxicology Assessment

Aacute aquatic hazard : Very toxic to aquatic life.

Chronic aquatic : Toxic to aquatic life with long lasting effects hazard

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1):

M-Factor (Short-term (acute) aquatic hazard) : 100

M-Factor (Long-term (chronic) aquatic hazard) : 100

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

Long-term (chronic) aquatic hazard : Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability
No data available

12.3. Bioaccumulative potential
No data available

12.4. Mobility in soil
No data available

12.5. Results of PBT and vPvB assessment

Product:

Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6. Endocrine disrupting properties
No data available

12.7. Other adverse effects

Product:

Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

Components:

Copper:

Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

zinc powder — zinc dust (stabilised):

Additional ecological information:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

European Waste Catalogue: 08 01 11 - waste paint and varnish containing organic solvents or other dangerous substances.

13.1. Waste treatment methods

Product:

The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging:

Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number:

ADR:	UN 3082
IATA:	UN 3082
IMDG:	UN 3082

14.2. UN proper shipping name

ADR:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (Copper metal powder)
IMDG:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (Copper metal powder)
IATA:	Environmentally hazardous substance, liquid; n.o.s. (Copper metal powder)

14.3 Transport hazard class

	Class	Subsidiary risk
ADR:	9	
IMDG:	9	
IATA:	9	

14.4 Packing group

ADR

Packaging group:	III
Classification Code:	M6
Hazard identification No:	90
Labels:	9
Tunnel restriction code:	(-)

IMDG

Packaging group:	III
Labels:	9
EmS Number:	F-A, S-F

IATA (Cargo)

Packing instruction (cargo aircraft):	964

Packing instruction (LQ):	Y964
Packaging group:	III
Labels:	9

IATA (Passenger)

Packing instruction (passenger aircraft):	964
Packing instruction (LQ):	Y964
Packaging group:	III
Labels:	9

14.5 Environmental hazards

ADR:

Environmentally hazards: yes

IMDG:

Marine pollutant: yes

14.6. Special precautions for users

Remarks: For single packagings ≤ 5L / 5 kg, or combination packagings containing inner packagings ≤ 5L / 5 kg net per inner packaging, SV375 ADR, 2.10.2.7 IMDG-Code, A197 IATA-DGR may be applied.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: REGULATORY INFORMATION

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

Relevant EU provisions transposed through retained EU law

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) :	Conditions of restriction for the following entries should be considered: Number on list 3 salt of polyamineamide (Number on list 3) Polypropylene glycol (Number on list 3)
UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation :	Not applicable
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain) :	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer :	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV) :	Not applicable

15.2. Chemical safety assessment

No data available

SECTION 16: OTHER INFORMATION

Full text of H-Statements

H301 :	Toxic if swallowed.
H302 :	Harmful if swallowed.
H310 :	Fatal in contact with skin.
H314 :	Causes severe skin burns and eye damage.
H315 :	Causes skin irritation.
H317 :	May cause an allergic skin reaction.
H318 :	Causes serious eye damage.
H319 :	Causes serious eye irritation.
H330 :	Fatal if inhaled.
H334 :	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H372 :	Causes 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.

Full text of other abbreviations:

Acute Tox. :	Acute toxicity
Aquatic Acute :	Short-term (acute) aquatic hazard
Aquatic Chronic :	Long-term (chronic) aquatic hazard
Eye Dam. :	Serious eye damage
Eye Irrit. :	Eye irritation
Skin Corr. :	Skin corrosion
Skin Irrit. :	Skin irritation
Skin Sens. :	Skin sensitisation
STOT RE :	Specific target organ toxicity - repeated exposure
GB EH40 :	UK. EH40 WEL - Workplace Exposure Limits

GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL: Short-term exposure limit (15-minute reference period)

Legend

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AICS	Australian Inventory of Chemical Substances
ASTM	American Society for the Testing of Materials
bw	Body weight
CLP	Classification Labelling Packaging Regulation Regulation (EC) No 1272/2008
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DIN	Standard of the German Institute for Standardisation
DMEL	Derived Minimal Effect Level (genotoxic substances)
DNEL	Derived No Effect Level
DSL	Domestic Substances List (Canada)
ECHA	European Chemicals Agency
EC-Number	European Community number
ECx	Concentration associated with x% response
ELx	Loading rate associated with x% response
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
ErCx	Concentration associated with x% growth rate response
GHS	Globally Harmonized System
GLP	Good Laboratory Practice
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50	Half maximal inhibitory concentration
ICAO	International Civil Aviation Organization
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods

IMO	International Maritime Organization
ISHL	Industrial Safety and Health Law (Japan)
ISO	International Organisation for Standardization
KECI	Korea Existing Chemicals Inventory
LC50	Lethal Concentration to 50 % of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MARPOL	International Convention for the Prevention of Pollution from Ships
n.o.s.	Not Otherwise Specified
NO(A)EC	No Observed (Adverse) Effect Concentration
NO(A)EL	No Observed (Adverse) Effect Level
NOELR	No Observable Effect Loading Rate
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Co-operation and Development
OPPTS	Office of Chemical Safety and Pollution Prevention
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
(Q)SAR	(Quantitative) Structure Activity Relationship

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