

Colour etchant acc. MARBLE

according to UK REACH Regulation

Revision date: 16.10.2023

Product code: 19015.xxxxx

Page 1 of 13

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

1.1. Product identifier

Colour etchant acc. MARBLE

UFI:

DF0U-XYT7-JNJC-KDF0

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

Use of the substance/mixture

For use as an etchant in metallography. The product is intended for research, analysis and scientific education.

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name:	MORPHISTO GmbH	
Street:	Schumannstr. 142/144	
Place:	D-63069 Offenbach	
Telephone:	+49 (0) 69 / 400 3019-60	Telefax: +49 (0) 69 / 400 3019-64
E-mail:	info@morphisto.de	
Contact person:	Morphisto GmbH	
E-mail:	gefahrstoffmanagement@morphisto.c	de
Internet:	http://www.morphisto.de	
1.4. Emergency telephone	Poison Information Center Mainz, Gen	rmany, Tel: +49(0)6131/19240

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Met. Corr. 1; H290 Skin Corr. 1; H314 Eye Dam. 1; H318 STOT SE 3; H335 Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

The mixture was classified as corrosive precautionary due to an extreme pH-value (pH <2).

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

hydrochloric acid % Copper sulphate

Signal word: Pictograms: Danger



Hazard statements

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.



according to UK REACH Regulation

Colour etchant acc. MARBLE

Revision date: 16.10.2023

Product code: 19015.xxxxx

Page 2 of 13

Precautionary statemer	nts
P260	Do not breathe mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
Labolling of packages	where the contents do not exceed 125 ml

Labelling of packages where the contents do not exceed 125 ml

Signal word: Pictograms:



Hazard statements

H314-H412

Precautionary statements

P260-P280-P303+P361+P353-P305+P351+P338-P310

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain any components that are considered to be hazardous according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in amounts of 0.1% or more have endocrine disrupting properties. Toxicological information: The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more have endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization aqueous solution

Hazardous components

CAS No	Chemical name	Chemical name				
	EC No	Index No	REACH No			
	Classification (GB CLP Regulation)				
7647-01-0	hydrochloric acid %			15 - < 20 %		
	231-595-7	017-002-01-X	01-2119484862-27			
	Met. Corr. 1, Skin Corr. 1B, Eye Dam. 1, STOT SE 3; H290 H314 H318 H335					
7758-99-8	Copper sulphate	Copper sulphate				
	231-847-6	029-023-00-4	01-2119520566-40			
	Acute Tox. 4, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H302 H318 H400 H410					

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



according to UK REACH Regulation

Colour etchant acc. MARBLE

Revision date: 16.10.2023

Product code: 19015.xxxxx

Page 3 of 13

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc	Limits, M-factors and ATE	
7647-01-0	231-595-7	hydrochloric acid %	15 - < 20 %
		2222 mg/kg Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 19: >= 10 - < 25 STOT SE 3; H335: >= 10 - 100	
7758-99-8	231-847-6	Copper sulphate	1 - < 5 %
		= >2000 mg/kg; oral: ATE 481 mg/kg Aquatic Acute 1; H400: M=10 ic 1; H410: M=1	

Further Information

This product contains no substances of very high concern (SVHC) (>0,1%) which are included in the Candidate List according to Article 59 of REACH.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. Remove casualty to fresh air and keep warm and at rest. Take off contaminated clothing and wash it before reuse. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. Medical treatment necessary. Never give anything by mouth to an unconscious person or a person with cramps. If unconscious but breathing normally, place in recovery position and seek medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. In the case of all acid injuries, it is essential to consult a doctor. Chemical burns may be noticed after several hours!

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink 1 glass of of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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

Causes severe skin burns and eye damage. Ingestion causes burns of the upper digestive and Respiratory tract. After swallowing copper sulphate, gastrointestinal complaints such as metallic taste, nausea, vomiting, burning or pain behind the breastbone occur quickly. Depending on the concentration of liquid preparations, but especially if crystals are swallowed, deep burns are to be expected. In severe cases, bloody diarrhoea and circulatory collapse as well as disintegration of red blood cells (haemolysis), jaundice (icterus), liver and kidney damage are possible. Translated with www.DeepL.com/Translator (free version)

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

High power water jet.



according to UK REACH Regulation

Colour etchant acc. MARBLE

Revision date: 16.10.2023

Product code: 19015.xxxxx

Page 4 of 13

5.2. Special hazards arising from the substance or mixture

Non-flammable. In case of fire may be liberated: Carbon dioxide (CO2). Carbon monoxide (CO). Hydrogen chloride (HCI). Carbon oxide dichloride (CCI2O). Chlorine (CI2). Sulphur dioxide (SO2). Copper oxides. Oxygen.

5.3. Advice for firefighters

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

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 surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

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

For non-emergency personnel

Clear danger zone. Follow emergency plan. Consult an expert.

For emergency responders

Evacuate area. Eliminate leaks immediately.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Clean contaminated articles and floor according to the environmental legislation.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.Shafts and sewers must be protected from entry of the product. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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.

Other information

Clean contaminated objects and areas thoroughly observing environmental regulations.

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 gas/fumes/vapour/spray. Use extractor hood (laboratory). After each use, wash hands with plenty of water. Always close containers tightly after the removal of product. Wear personal protection equipment (refer to section 8).

Advice on protection against fire and explosion

No special fire protection measures are necessary.

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. Ensure cleanliness and dryness in the workplace.



according to UK REACH Regulation

Colour etchant acc. MARBLE

Revision date: 16.10.2023

Product code: 19015.xxxxx

Page 5 of 13

Further information on handling

When using do not eat, drink, smoke, sniff. Wear personal protection equipment (refer to section 8). Take off contaminated clothing and wash it before reuse. Street clothing should be stored separately from work clothing. Wash hands and face before breaks and after work and take a shower if necessary. Before starting work, apply solvent-resistant skincare preparations. Draw up and observe skin protection programme.

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. Unsuitable container/equipment material: Metal.

Hints on joint storage

Do not store together with: food and feed. pharmaceuticals. Infectious substances. Radioactive substances. Explosive substances. Oxidizing substances. Oxidizing liquids. Organic peroxides. Self-reactive substances and mixtures. Pyrophoric solids. Substances which in contact with water form flammable gases. Ammonium nitrate and preparations containing ammonium nitrate.

Further information on storage conditions

Protect against: UV-radiation/sunlight. heat. Make sure spills can be contained, e.g. in sump pallets or kerbed areas. Recommended storage temperature: 15-25 °C

7.3. Specific end use(s)

For use as an etchant in metallography. The product is intended for research, analysis and scientific education.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
7647-01-0	Hydrogen chloride (gas and aerosol mists)	1	2		TWA (8 h)	WEL
		5	8		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance				
DNEL type		Exposure route	Effect	Value	
7647-01-0	hydrochloric acid %				
Worker DNEL,	acute	inhalation	local	15 mg/m³	
Worker DNEL,	long-term	inhalation	local	8 mg/m³	
7758-99-8	Copper sulphate				
Worker DNEL,	long-term	inhalation	systemic	1 mg/m³	
Worker DNEL, long-term inhalation local			local	1 mg/m³	
Worker DNEL, long-term dermal systemic 137 mg/kg bw/day					



according to UK REACH Regulation

Colour etchant acc. MARBLE

Revision date: 16.10.2023

Product code: 19015.xxxxx

Page 6 of 13

PNEC values

CAS No	Substance		
Environmenta	al compartment	Value	
7758-99-8	Copper sulphate		
Freshwater		0,0078 mg/l	
Marine water 0,0052 m		0,0052 mg/l	
Freshwater sediment 87 mg/kg			
Marine sediment		676 mg/kg	
Micro-organisms in sewage treatment plants (STP)		0,23 mg/l	
Soil		65 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. Technical measures and the application of suitable work processes have priority over personal protection equipment. Use extractor hood (laboratory). Provide washing facilities at the workplace, provide an eye shower or eyewash bottle and mark them.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles. Safety goggles with side protection. In case of increased risk add protective face shield.

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.

Recommended material:

Breakthrough time (maximum wearing time): >480 min.

NBR (Nitrile rubber). Layer thickness:0,5mm.

Butyl rubber.0,5mm.

FKM (fluororubber).0,4mm.

CR (polychloroprenes, Chloroprene rubber).0,5mm. Before using check leak tightness / impermeability.

Skin protection

Use of protective clothing. Lab apron. Material, acid-resistant.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Recommended material: Combination filtering device (EN 14387), Type: A/ABEK2-P2.

Environmental exposure controls

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.



according to UK REACH Regulation

Colour etchant acc. MARBLE

Revision date: 16.10.2023

Product code: 19015.xxxxx

Page 7 of 13

MORPHISTO GmbH

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

9.1. Information on basic physical and ch	emical properties	
Physical state:	Liquid	
Colour:	green	
Odour:	pungent stinging	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and		56,1 °C
boiling range:		
Flammability:		not determined
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		not determined
Auto-ignition temperature:		not determined
Decomposition temperature:		not determined
pH-Value (at 20 °C):		0-1
Viscosity / kinematic:		not determined
Water solubility: (at 20 °C)		easily soluble
Solubility in other solvents		
not determined		
Partition coefficient n-octanol/water:		not determined
Vapour pressure:		23 hPa
(at 20 °C)		
Vapour pressure:		123 hPa
(at 50 °C)		
Density (at 20 °C):		1,10 g/cm ³
Relative vapour density:		not determined
Particle characteristics:		not applicable
9.2. Other information		
Information with regard to physical ha	azard classes	
Explosive properties		
The product is not: Explosive.		
Oxidizing properties		
The product is not: oxidising.		
Other safety characteristics		
Evaporation rate:		not determined

Solid content:

not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Base, Peroxides, Oxidizing agent. Reducing agent peroxides, for example hydrogen peroxide.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.



according to UK REACH Regulation

Colour etchant acc. MARBLE

Revision date: 16.10.2023

Product code: 19015.xxxxx

Page 8 of 13

10.5. Incompatible materials

Metal. Keep away from: Base, Oxidizing agent, Peroxides.

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon dioxide (CO2). Carbon monoxide (CO). Hydrogen chloride (HCl). Carbon oxide dichloride (CCl2O). Chlorine (Cl2). Sulphur dioxide (SO2). Copper oxides. Oxygen.

SECTION 11: Toxicological information

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

Acute toxicity

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

ATEmix calculated

ATE (oral) 21097 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name						
	Exposure route	Dose	Species	Source	Method		
7647-01-0	hydrochloric acid %						
	oral	LD50 2222 mg/kg	Rat	suppliers SDS.			
7758-99-8	Copper sulphate						
	oral	ATE 481 mg/kg					
	dermal	LD50 >2000 mg/kg	Ratte	ECHA			

Irritation and corrosivity

Causes severe skin burns and eye damage. (On basis of test data) Causes serious eye damage. (On basis of test data)

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 respiratory irritation. (hydrochloric acid %)

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.

11.2. Information on other hazards

Endocrine disrupting properties

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

Other information

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

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.



according to UK REACH Regulation

Colour etchant acc. MARBLE

Revision date: 16.10.2023

Product code: 19015.xxxxx

Page 9 of 13

CAS No	Chemical name						
	Aquatic toxicity	Aquatic toxicity Dose [h] [d] Species Source Method					
7758-99-8	Copper sulphate	Copper sulphate					
	Acute fish toxicity	LC50 mg/l	0,0384	96 h	Fisch	ECHA	

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

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

highly hazardous to water

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Consult the local waste disposal expert about waste disposal.

List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by 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)



according to UK REACH Regulation

	Colour etchant acc. MARBLE	
Revision date: 16.10.2023	Product code: 19015.xxxxx	Page 10 of 13
14.1. UN number or ID number:	UN 1789	
14.2. UN proper shipping name:	HYDROCHLORIC ACID	
14.3. Transport hazard class(es):	8	
<u>14.4. Packing group:</u> Hazard label:	III 8	
Hazaro label:	8 Â	
Classification code:	C1	
Special Provisions:	520	
Limited quantity:	5 L	
Excepted quantity:	E1	
Transport category: Hazard No:	3 80	
Tunnel restriction code:	E	
	E	
Inland waterways transport (ADN) <u>14.1. UN number or ID number:</u>	UN 1789	
14.2. UN proper shipping name:	HYDROCHLORIC ACID	
14.3. Transport hazard class(es):	8	
14.4. Packing group:		
Hazard label:	8	
Classification code:	C1	
Special Provisions:	520	
Limited quantity: Excepted quantity:	5 L E1	
	EI	
Marine transport (IMDG) <u>14.1. UN number or ID number:</u>	UN 1789	
14.2. UN proper shipping name:	HYDROCHLORIC ACID	
14.3. Transport hazard class(es):	8	
14.4. Packing group:	III	
Hazard label:	8	
Special Provisions:	223 ັ	
Limited quantity:	5 L	
Excepted quantity:	E1	
EmS:	F-A, S-B	
Segregation group:	1 - acids	
Air transport (ICAO-TI/IATA-DGR)	111 1790	
14.1. UN number or ID number:		
<u>14.2. UN proper shipping name:</u> 14.3. Transport hazard class(es):	HYDROCHLORIC ACID 8	
14.3. Transport hazard class(es): 14.4. Packing group:	o 	
Hazard label:	8	
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according to UK REACH Regulation

Revision date: 16.10.2023	Colour etchant acc. MARBLE Product code: 19015.xxxxx	Page 11 of 13			
Special Provisions: Limited quantity Passenger: Passenger LQ: Excepted quantity:	A3 A803 1 L Y841 E1				
IATA-packing instructions - Passenger: IATA-max. quantity - Passenger: IATA-packing instructions - Cargo: IATA-max. quantity - Cargo:	852 5 L 856 60 L				
14.5. Environmental hazards					
ENVIRONMENTALLY HAZARDOUS:	Yes				
Danger releasing substance:	Copper sulphate				
Warning: strongly corrosive. 14.7. Maritime transport in bulk according to not applicable	IMO instruments				
SECTION 15: Regulatory information	SECTION 15: Regulatory information				
	ations/legislation specific for the substance or mixture				
EU regulatory information Restrictions on use (REACH, annex XVII): Entry 3, Entry 75					
Information according to 2012/18/EU (SEVESO III):	E1 Hazardous to the Aquatic Environment				
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					
For the following substances of this mix hydrochloric acid % Copper sulphate	ture a chemical safety assessment has been carried out:				

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16. Rev. 1,0; 16.04.2021; Initial release. Rev. 2,0; 16.10.2023; general adjustment(s)

according to UK REACH Regulation

Colour etchant acc. MARBLE

Revision date: 16.10.2023

Product code: 19015.xxxxx

Page 12 of 13

Abbreviations and acronyms 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 CAS: Chemical Abstracts Service DNEL: Derived No Effect Level DMEL: Derived Minimal Effect Level PNEC: Predicted No Effect Concentration ATE: Acute toxicity estimate LC50: Lethal concentration, 50% LD50: Lethal dose, 50% 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 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) 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) IMDG: International Maritime Code for Dangerous Goods EmS: Emergency Schedules MFAG: Medical First Aid Guide IATA: International Air Transport Association ICAO: International Civil Aviation Organization MARPOL: International Convention for the Prevention of Marine Pollution from Ships IBC: Intermediate Bulk Container SVHC: Substance of Very High Concern For abbreviations and acronyms, see table at http://abbrev.esdscom.eu For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations). Met. Corr: Corrosive to metals Acute Tox: Acute toxicity Skin Corr: Skin corrosion Eye Dam: Eye damage STOT SE: Specific target organ toxicity - single exposure Aquatic Acute: Acute aquatic hazard Aquatic Chronic: Chronic aquatic hazard

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

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	On basis of test data
STOT SE 3; H335	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text) H290

May be corrosive to metals.



according to UK REACH Regulation

Colour etchant acc. MARBLE			
Revision date: 16.10.2023	Product code: 19015.xxxxx	Page 13 of 13	
H302	Harmful if swallowed.		
H314	Causes severe skin burns and eye damage.		
H318	Causes serious eye damage.		
H335	May cause respiratory irritation.		
H400	Very toxic to aquatic life.		
H410	Very toxic to aquatic life with long lasting effects.		
H412	Harmful 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 above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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