

**Safety Data Sheet**

according to UK REACH Regulation

**Anodizing electrolyte**

Revision date: 23.06.2022

Product code: 0801

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Anodizing electrolyte

UFI: FHCJ-U9RD-P20U-KKUX

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

Metal surface treatment products

**Uses advised against**

No further relevant information available.

**1.3. Details of the supplier of the safety data sheet**

Company name:	MARAWE GmbH & Co. KG	
Street:	Donaustauer Str. 378 - Gebäude 64	
Place:	D-93055 Regensburg	
Telephone:	+49 941 / 29020439	Telefax: +49 941 / 29020593
e-mail:	info@marawe.de	
Contact person:	Product safety department	
Internet:	www.marawe.de	

**1.4. Emergency telephone number:**+49 941 / 29020439,  
Mo-Do 9:00 - 16:00 Uhr; Fr 9:00 - 14:00 Uhr**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**Met. Corr. 1; H290  
Skin Irrit. 2; H315  
Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****GB CLP Regulation**

Signal word: Warning

Pictograms:

**Hazard statements**

H290	May be corrosive to metals.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

**Precautionary statements**

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P234	Keep only in original packaging.
P280	Wear protective gloves/protective clothing/eye protection/face 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.
P337+P313	If eye irritation persists: Get medical advice/attention.

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Absorb spillage to prevent material damage.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
7664-93-9	sulphuric acid			5 - < 15 %
	231-639-5	016-020-00-8		
	Met. Corr. 1, Skin Corr. 1A, Eye Dam. 1; H290 H314 H318			

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. Limits, M-factors and ATE		
7664-93-9	231-639-5	sulphuric acid	5 - < 15 %
	oral: LD50 = 2140 mg/kg Skin Corr. 1A; H314: >= 15 - 100 Skin Irrit. 2; H315: >= 5 - < 15 Eye Irrit. 2; H319: >= 5 - < 15		

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### After inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

##### 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.

##### 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 water. Do NOT induce vomiting. Call a doctor if you feel unwell.

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

Causes skin burns.

Causes skin and eye irritation.

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

 In case of oral uptake: do not use sodium hydrogen carbonate NaHCO<sub>3</sub> or calcium carbonate CaCO<sub>3</sub> for neutralisation, because the created carbon dioxide CO<sub>2</sub> can lead to perforation of the stomach. Make slowly drink magnesium oxide MgO suspended in water.

In the case of lung irritation: Primary treatment using corticoide spray, eg. Auxilison spray, Pulmicort-dosage-spray. (Auxilison and Pulmicort are registered trademarks.)

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

 CO<sub>2</sub> or powder. Fight bigger fires with water spray jet or alcohol-resistant foam.

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**Unsuitable extinguishing media**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**In case of fire may be liberated: Sulphur oxides (SO / SO<sub>2</sub> / SO<sub>3</sub>), Hydrogen sulfide (H<sub>2</sub>S).**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 advice**

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****For containment**

Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

**For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Do not use flammable/oxidizable material! Use neutralizing agent.

In case of big amounts: pump out the product.

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. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. Do not breathe gas/fumes/vapour/spray.

Wear suitable protective clothing and eye/face protection.

**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. 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. Unsuitable container/equipment material: Metal.

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#### Hints on joint storage

Store away from food.  
Keep away from lyes, metals and organic compounds.

#### Further information on storage conditions

The regulations of the Ordinance on Hazardous Substances with its respective technical rules (TRGS 510) have to be respected.

#### 7.3. Specific end use(s)

Metal surface treatment products

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7664-93-9	Sulphuric acid (mist)	-	0.05		TWA (8 h)	WEL

#### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
7664-93-9	sulphuric acid			
Worker DNEL, acute		inhalation	local	0,1 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	0,05 mg/m <sup>3</sup>

#### PNEC values

CAS No	Substance	Value
7664-93-9	sulphuric acid	
Freshwater		0,0025 mg/l
Marine water		0,25 mg/l
Freshwater sediment		0,002 mg/kg
Marine sediment		0,25 mg/l
Micro-organisms in sewage treatment plants (STP)		8,8 mg/l

### 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

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

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

**Skin protection**

If there can be contact with skin, wear protective clothes impermeable by this solution.

**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: colourless  
Odour: odourless

**Changes in the physical state**

Melting point/freezing point: not determined  
Boiling point or initial boiling point and boiling range: > 100 °C  
Flash point: not determined

**Flammability**

Solid/liquid: not applicable  
Gas: not applicable

**Explosive properties**

The product is not: Explosive.

Lower explosion limits: not determined  
Upper explosion limits: not determined  
Auto-ignition temperature: not determined  
Decomposition temperature: not determined  
pH-Value (at 25 °C): 0  
Water solubility: not determined

**Solubility in other solvents**

not determined

Partition coefficient n-octanol/water: not determined  
Vapour pressure: not determined  
Density (at 20 °C): 1,10 g/cm<sup>3</sup>  
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**

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**10.1. Reactivity**

Corrosive to metals. React violently with bases. May cause strong formation of hydrogen by contact with amphoteric metals (e.g. alumina, lead, zinc) - danger of explosion.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Exothermic reaction with: Water, Alkalis (alkalis).

**10.4. Conditions to avoid**

none

**10.5. Incompatible materials**

Keep away from: Metal.

**10.6. Hazardous decomposition products**

Sulphur oxides (SO, SO<sub>2</sub>, SO<sub>3</sub>), Hydrogen sulfide (H<sub>2</sub>S).

**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.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7664-93-9	sulphuric acid				
	oral	LD50 mg/kg	2140	Rat	GESTIS OECD 401

**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.

**Further information**

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

**SECTION 12: Ecological information****12.1. Toxicity**

The product is not: Ecotoxic.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7664-93-9	sulphuric acid					
	Acute fish toxicity	LC50 mg/l	16 - 28	96 h	Lepomis macrochirus (Bluegill)	
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Desmodesmus subspicatus	OECD 201
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna (Big water flea)	OECD 202

#### 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.

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

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

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

##### List of Wastes Code - residues/unused products

200114 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); Acids; hazardous waste

##### Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

##### 14.1. UN number or ID number:

UN 2796

##### 14.2. UN proper shipping name:

SULPHURIC ACID

##### 14.3. Transport hazard class(es):

8

##### 14.4. Packing group:

II

Hazard label:

8



Classification code:

C1

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Limited quantity: 1 L  
 Excepted quantity: E2  
 Transport category: 2  
 Hazard No: 80  
 Tunnel restriction code: E

#### Inland waterways transport (ADN)

**14.1. UN number or ID number:** UN 2796  
**14.2. UN proper shipping name:** Sulphuric acid  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



Classification code: C1  
 Limited quantity: 1 L  
 Excepted quantity: E2

#### Marine transport (IMDG)

**14.1. UN number or ID number:** UN 2796  
**14.2. UN proper shipping name:** SULPHURIC ACID  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



Special Provisions: -  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 EmS: F-A, S-B

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:** UN 2796  
**14.2. UN proper shipping name:** SULPHURIC ACID  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



Limited quantity Passenger: 0.5 L  
 Passenger LQ: Y840  
 Excepted quantity: E2  
 IATA-packing instructions - Passenger: 851  
 IATA-max. quantity - Passenger: 1 L  
 IATA-packing instructions - Cargo: 855  
 IATA-max. quantity - Cargo: 30 L

#### 14.6. Special precautions for user

Warning: strongly corrosive.

#### 14.7. Maritime transport in bulk according to IMO instruments

not applicable



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**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/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):

Not subject to 2012/18/EU (SEVESO III)

**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):

1 - slightly 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

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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).

**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 Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method

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

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

**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.)*