

# Safety data sheet

under Regulation (EU) No. 1907/2006

## JMT accumulator acid (battery acid)

Revised on: 02/07/2018

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### SECTION 1: Name of substance or mixture and the company

#### 1.1. Product identifier

JMT accumulator acid (battery acid)

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

##### Use of the substance/mixture

Electrolyte

Electric batteries and accumulators

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

Company name: Johannes J. Matthies GmbH & Co. KG  
 Street: Hammerbrookstr. 97  
 Town: D-20097 Hamburg  
 Phone: + 49 (0) 40 2 37 21-0  
 Email: info@matthies.de  
 Internet: www.matthies.de

**1.4. Emergency telephone number:** + 49 (0) 40 2 37 21-0

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Regulation (EC) No. 1272/2008

Hazard categories:

Corrosive to metals: Met. corr. 1

Caustic/Irritant effect on the skin: Skin corr. 1A

Serious eye damage/eye irritation: Eye dam. 1

Hazard statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

Causes serious eye damage.

#### 2.2. Label elements

##### Regulation (EC) No. 1272/2008

##### Hazard-determining components for labelling

Sulphuric acid

**Signal word:** Danger

**Pictograms:**



##### Hazard statements

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

##### Precautionary statements

P260

Do not breathe dust/fume/gas/mist/vapours/spray

P280

Wear protective gloves/protective clothing/eye protection/face protection

P301+P330+P331

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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.

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P310 Immediately call a POISON CENTER or doctor/physician.

**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Hazardous ingredients**

CAS No.	Designation			Content
	EC No.	Index No.	REACH No.	
	Classification under Regulation (EU) No. 1272/2008 [CLP]			
7664-93-9	Sulphuric acid			37.5 %
	231-639-5	016-020-00-8	01-2119458838-20	
	Met. corr. 1, Skin corr. 1A; H290 H314			

The full text of all R and EUH phrases is displayed in section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

First aiders: Ensure that you are not in any danger. Take the patients out of the hazard zone and lay them down.

**After inhalation**

Provide a supply of fresh air. Seek medical advice in all cases of doubt or if any symptoms are present.

**After skin contact**

After contact with the skin, wash affected area immediately with polyethylene glycol and then with plenty of water. Remove all contaminated clothing immediately and wash before wearing again. Medical treatment required.

**After eye contact**

After contact with the eyes, rinse immediately under running water whilst holding the eyelid open for 10 to 15 minutes and seek medical attention.

**After ingestion**

If the patient is vomiting, remember that there is a risk of aspiration. Do NOT induce vomiting. Rinse the mouth immediately and drink plenty of water. Do not drink any neutralisation products. Seek immediate medical attention.

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

If swallowed there is a risk of perforation of the oesophagus and the stomach (severe caustic effect).

**4.3. Indications of any immediate medical attention and special treatment needed**

Symptomatic treatment.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Use firefighting measures tailored to the ambient area.

**5.2. Special hazards arising from the substance or mixture**

Non-flammable. Strong development of hydrogen after contact with amphoteric metals (for example aluminium, lead or zinc) possible – danger of explosion.

**5.3. Advice for firefighters**

Wear positive-pressure self-contained breathing apparatus and a chemical protective suit. Full protective suit.

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### Additional advice

Quell gases/vapours/misted with a water spray jet. Collect contaminated firefighting water separately. Do not allow contaminated water to get into the sewer system or open water.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure there is adequate ventilation. Do not inhale gas/smoke/vapour/aerosol. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Clear the surrounding area.

### 6.2. Environmental precautions

Do not allow contaminated water to get into the sewer system or open water.

### 6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, kieselguhr, acid binding agent, universal binding agent)  
Deal with the absorbent material as described in the section entitled Disposal considerations.

### 6.4. Reference to other sections

Safe handling: see section 7  
Personal protective equipment: see section 8  
Disposal considerations: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice for safe handling

Ensure there is adequate ventilation. Do not inhale gas/smoke/vapour/aerosol. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

#### Advice for fire and explosion prevention

No special fire safety measures are required.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage areas and containers

Keep containers tightly closed. Store in a locked room. Store in an area which is only accessible to authorised personnel. Provide adequate ventilation and extraction facilities at critical points.

Unsuitable material for containers/systems: Metal

#### Advice for storing with other substances

Do not store together with the following: Food and fodder, alkalis (lyes), bases

Storage class under TRGS 510: 8B (non-flammable caustic hazardous substances)

### 7.3. Specific end use(s)

Electrolyte

Electric batteries and accumulators

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Workplace limit values (TRGS 900)

CAS No.	Designation	ppm	mg/m <sup>3</sup>	F/m <sup>3</sup>	Peak limit	Type
7664-93-9	Sulphuric acid		0.1 E		1(l)	

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**DNEL/DMEL values**

CAS No.	Designation		
DNEL type	Means of exposure	Effect	Value
7664-93-9	Sulphuric acid		
Worker DNEL, long term	Inhalation	Local	0.05 mg/m <sup>3</sup>
Worker DNEL, acute	Inhalation	Local	0.1 mg/m <sup>3</sup>

**PNEC values**

CAS No.	Designation	
Environmental compartment	Value	
7664-93-9	Sulphuric acid	
Sweetwater	0.003 mg/l	
Seawater	0 mg/l	
Sweetwater sediment	0.002 mg/kg	
Seawater sediment	0.002 mg/kg	
Micro-organisms in sewage plants	8.8 mg/l	

**8.2. Exposure controls****Suitable technical control equipment**

Provide adequate ventilation and extraction facilities at critical points.

**Protection and hygiene measures**

Remove contaminated, saturated clothing immediately. Prepare a skin protection plan and comply with it.

Wash hands and face thoroughly before breaks and at the end of work, shower if necessary. Do not eat or drink during work. Do not inhale gas/smoke/vapour/aerosol. Keep away from food, drinks and fodder.

**Eye/face protection**

Wear safety goggles/face protection.

**Hand protection**

Wear safety gloves. (Acid-resistant)

Suitable material: NBR (nitrile butyl rubber)

Only chemical safety gloves bearing the CE mark including a four-figure test number may be worn for handling chemical substances. Chemical safety gloves must be selected depending on the hazardous substance concentration and volume at the specific workplace. We recommend that the chemical resistance of these safety gloves should be clarified with the glove manufacturer for specific applications. The breakthrough times and absorption properties of the material must be taken into account.

**Body protection**

Wear suitable protective clothing during work. (Acid-resistant)

**Respiratory protection**

Wear suitable respiratory protection if ventilation is inadequate.

**Environmental exposure controls**

Do not allow contaminated water to get into the sewer system or open water.

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**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Aggregate phase:	Liquid
Colour:	Colourless
Odour:	Odourless
pH value:	Acidic
<b>Changes of state</b>	
Melting point:	-40 °C
Initial boiling point and range:	112 °C
Flash point:	Not applicable
<b>Flammability</b>	
Solid:	Not applicable
Gas:	Not applicable
<b>Explosion hazards</b>	
The product is not explosive.	
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
<b>Auto-ignition temperature</b>	
Solid:	Not applicable
Gas:	Not applicable
Decomposition temperature:	Not determined
<b>Oxidising properties</b>	
Not oxidising.	
Vapour pressure: (at 20 °C)	23 hPa
Density:	1.28 g/cm <sup>3</sup>
Water solubility:	Fully miscible
<b>Solubility in other solvents</b>	
Not determined	
Partition coefficient:	Not determined
Dyn. viscosity:	3.0 mPa·s
Kin. viscosity:	Not determined
Vapour density:	Not determined
Evaporation rate:	Not determined Water 62.50 %
Solvent content:	

**9.2. Other information**

Odour threshold: Not applicable

**SECTION 10: Stability and reactivity****10.1. Reactivity**

If handled and stored correctly, no hazardous reactions will occur.

**10.2. Chemical stability**

The product is stable if stored at normal ambient temperatures.

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**10.3. Possibility of hazardous reactions**

Reacts with: Metals (formation of: Hydrogen)

**10.4. Conditions to avoid**

No information available.

**10.5. Incompatible materials**

Alkalis (lyes), bases

**10.6. Hazardous decomposition products**

Strong development of hydrogen after contact with amphoteric metals (for example aluminium, lead or zinc) possible  
- danger of explosion.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

The classification criteria are not satisfied by the available data.

CAS No.	Designation				
	Means of exposure	Dosage	Species	Source	Method
7664-93-9	Sulphuric acid				
	Oral	LD50 mg/kg	2140	Rat	ECHA OECD 401
	Inhalation (4 h) aerosol	LC50	375 mg/l	Rat	ECHA OECD 403

**Irritative and caustic effect**

Causes severe skin burns and eye damage.

If swallowed there is a risk of perforation of the oesophagus and the stomach (severe caustic effect).

**Sensitising effects**

The classification criteria are not satisfied by the available data.

**Carcinogenic, mutagenic and teratogenic effects**

The classification criteria are not satisfied by the available data.

**Specific target organ toxicity – single exposure**

The classification criteria are not satisfied by the available data.

**Specific target organ toxicity – repeated exposure**

The classification criteria are not satisfied by the available data.

**Danger of aspiration**

The classification criteria are not satisfied by the available data.

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

The product is not ecotoxic.

CAS No.	Designation					
	Aquatic toxicity	Dosage	[h]   [d]	Species	Source	Method
7664-93-9	Sulphuric acid					
	Acute toxicity – algae	ErC50 mg/l	> 100	72 h	Desmodesmus subspicatus	ECHA OECD 201
	Acute toxicity – crustaceans	EC50 mg/l	> 100	48 h	Daphnia magna	ECHA OECD 202
	Toxicity – algae	NOEC	100 mg/l	3 d	Desmodesmus subspicatus	ECHA OECD 201

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**12.2. Persistence and degradability**

The product was not tested.

**12.3. Bio-accumulative potential**

The product was not tested.

**12.4. Mobility in soil**

The product was not tested.

**12.5. Results of PBT and vPvB assessment**

The product was not tested.

**12.6. Other adverse effects**

No information available.

**Other advice**

Do not allow to get into groundwater, open water or the sewage system undiluted or in large quantities.

**13.1. Waste treatment method****SECTION 13: Disposal considerations****Recommendation**

Do not allow contaminated water to get into the sewer system or open water. Dispose of in accordance with official regulations.

**Product waste code**

060101 WASTE FROM INORGANIC CHEMICAL PROCESSES; waste from the production, preparation, sale and application of acids; sulphuric acid and sulphurous acid; hazardous waste

**Product residue waste code**

060101 WASTE FROM INORGANIC CHEMICAL PROCESSES; waste from the production, preparation, sale and application of acids; sulphuric acid and sulphurous acid; hazardous waste

**Disposal of uncleaned packaging and recommended cleaning products**

Dispose of in accordance with official regulations.

Recommended cleaning products: Water, possibly with the addition of cleaning products.

**SECTION 14: Transport information****Land transport (ADR/RID)**

<b>14.1. UN number:</b>	UN 2796
<b>14.2. UN proper shipping name:</b>	BATTERY FLUID, ACID ( sulphuric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Transport label:	8



Classification code:	C1
Limited quantity (LQ):	1 L
Excepted quantity:	E2
Transport category:	2
Hazard number:	80
Tunnel restriction code:	E

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**Inland waterway transport (ADN)**

**14.1. UN number:** UN 2796  
**14.2. UN proper shipping name:** BATTERY FLUID, ACID ( sulphuric acid)

**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Transport label: 8



Classification code: C1  
 Limited quantity (LQ): 1 L  
 Excepted quantity: E2

**Ocean-going vessel transport (IMDG)**

**14.1. UN number:** UN 2796  
**14.2. UN proper shipping name:** BATTERY FLUID, ACID ( sulphuric acid)

**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Transport label: 8



Special regulations: -  
 Limited quantity (LQ): 1 L  
 Excepted quantity: E2  
 EmS: F-A, S-B

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

**14.1. UN number:** UN 2796  
**14.2. UN proper shipping name:** BATTERY FLUID, ACID ( sulphuric acid)

**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II

Transport label: 8



Limited quantity (LQ) passenger: 0.5 L  
 Passenger LQ: Y840  
 Excepted quantity: E2  
 IATA packaging instructions - passenger: 851  
 IATA maximum quantity - passenger: 1 L  
 IATA packaging instructions - cargo: 855  
 IATA maximum quantity - cargo: 30 L

**14.5. Environmental hazards**

Environmentally hazardous: No

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**14.6. Special precautions for user**

No information available.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations**

Usage restrictions (REACH, Annex XVII):

Entry 3: Sulphuric acid

Information about SEVESO III

Not subject to the SEVESO III Directive

Directive 2012/18/EU:

**National regulations**

Employment restrictions:

Comply with employment restrictions for young people (§22 Juvenile Employment Protection Law (JArbSchG)).

Potential water-polluting class:

1 - low potential water-polluting

Status:

Mixing rule set out in Annex 1 No. 5 Systems for Handling Water-Polluting Substances (AwSV)

**15.2. Chemical safety assessment**

A chemical safety assessment has been completed for the following substances in this mixture: Sulphuric acid

**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%

**Classification of mixtures and evaluation method used under Regulation (EU) No. 1272/2008 [CLP]**

Classification	Classification method
Met. corr. 1; H290	Based on test data
Skin corr. 1A; H314	Calculation method
Eye dam. 1; H318	Calculation method

**Full text of all R and EUH phrases (number and full text)**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

**Other information**

This information is based on our current knowledge. However, it does not constitute any pursuance of product properties and does not give rise to any contractual legal relationship. Existing laws and regulations must be observed by recipients of our products at their own responsibility.

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*(The data relating to the hazardous contents have been taken from the latest safety data sheet provided by our supplier.)*