

Safety Data Sheet

according to Regulation (EC) No 1907/2006

JMC Akkumulatorensäure (Batteriesäure)

Print date: 27.08.2020

Product code: PES41

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

1.1. Product identifier

JMC Akkumulatorensäure (Batteriesäure)

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

Use of the substance/mixture

Electrolyte

Electrical batteries and accumulators

1.3. Details of the supplier of the safety data sheet

Manufacturer

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

Supplier

Company name: Larsson UK Ltd.
Street: 7 Alpha Court, Phoenix Parkway
Place: GB-NN17 5DP Corby
Telephone: + 44 1536 265633
e-mail: info@larsson.uk.com
Internet: www.larsson.uk.com

1.4. Emergency telephone number:

+ 44 1536 265633

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: 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 components for labelling

sulphuric acid

Signal word: Danger

Pictograms:



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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): 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.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7664-93-9	sulphuric acid			37 - 38 %
	231-639-5	016-020-00-8	01-2119458838-20	
	Met. Corr. 1, Skin Corr. 1A; H290 H314			

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

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.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Medical treatment necessary.

After contact with skin

Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

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.

After ingestion

Observe risk of aspiration if vomiting occurs. Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Do not allow a neutralisation agent to be drunk. Call a physician immediately.

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

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing media

Extinguishing powder, Carbon dioxide (CO₂), Water spray jet.
Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable. May cause strong formation of hydrogen by contact with amphoteric metals (e.g. alumina, lead, zinc) - danger of explosion.
In case of fire may be liberated: Sulphur oxides, Gases/vapours, corrosive.

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. Evacuate area. 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**

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

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.

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**

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

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

When diluting/dissolving, always have the water ready first, then slowly stir in the product.

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 exhaust at critical locations.

Unsuitable container/equipment material: Metal

Hints on joint storage

Do not store together with: Food and feedingstuffs, Alkali (lye), Base, metals (including their alloys), Oxidising agent, strong, Reducing agent, strong, Substance, organic.

7.3. Specific end use(s)

Electrolyte
Electrical batteries and accumulators

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	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, long-term		inhalation	local	0,05 mg/m³
Worker DNEL, acute		inhalation	local	0,1 mg/m³

PNEC values

CAS No	Substance	Value
7664-93-9	sulphuric acid	
Freshwater		0,003 mg/l
Marine water		0 mg/l
Freshwater sediment		0,002 mg/kg
Marine sediment		0,002 mg/kg
Micro-organisms in sewage treatment plants (STP)		8,8 mg/l

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Do not breathe gas/fumes/vapour/spray. Keep away from food, drink and animal feedings.

Eye/face protection

Wear eye/face protection.

Hand protection

Wear protective gloves. (Acid-resistant)

Suitable material: NBR (Nitrile rubber)

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. Breakthrough times and swelling properties of the material must be taken into consideration.

Skin protection

Wear suitable protective clothing. (Acid-resistant)

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Do not allow to enter into surface water or drains.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	colourless
Odour:	odourless

Test method

pH-Value:	acidic
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Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	approx. 95 °C
Flash point:	not applicable

Flammability

Solid:	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

Solid:	not applicable
Gas:	not applicable

Decomposition temperature:	not determined
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Oxidizing properties

Not oxidising.

Vapour pressure: (at 20 °C)	23 hPa
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Density:	1,285 g/cm ³
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Water solubility:	completely miscible
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Solubility in other solvents

not determined

Partition coefficient:	not determined
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Viscosity / dynamic:	not determined
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Viscosity / kinematic:	not determined
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Vapour density:	not determined
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Evaporation rate:	not determined
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Solvent content:	water: 62 - 63 %
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9.2. Other information

Odour threshold: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Reacts with: metals (Formation of: Hydrogen)

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During dilution or dissolving in water, strong heating-up always takes place.

Violent reaction with: Base, metals (including their alloys), Oxidising agent, strong, Reducing agent, strong, Substance, organic.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

Food and feedingstuffs, Alkali (lye), Base, metals (including their alloys), Oxidising agent, strong, Reducing agent, strong, Substance, organic.

10.6. Hazardous decomposition products

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

In case of fire may be liberated: Sulphur oxides, Gases/vapours, corrosive.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

CAS No	Chemical name			
	Exposure route	Dose	Species	Source
7664-93-9	sulphuric acid			
	oral	LD50 2140 mg/kg	Rat	ECHA
	inhalation (4 h) aerosol	LC50 375 mg/l	Rat	ECHA

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

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.

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

CAS No	Chemical name				
	Aquatic toxicity	Dose	[h] [d]	Species	Source
7664-93-9	sulphuric acid				
	Acute algae toxicity	ErC50 > 100 mg/l	72 h	Desmodesmus subspicatus	ECHA
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Daphnia magna (Big water flea)	ECHA
	Algae toxicity	NOEC 100 mg/l	3 d	Desmodesmus subspicatus	ECHA

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

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The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter groundwater, bodies of water or the sewage system in an undiluted condition or larger quantities.

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

160606 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; batteries and accumulators; separately collected electrolyte from batteries and accumulators; hazardous waste

List of Wastes Code - used product

160606 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; batteries and accumulators; separately collected electrolyte from batteries and accumulators; hazardous waste

Contaminated packaging

Dispose of waste according to applicable legislation.

Recommended cleaning agent: Water, with cleaning agent added where necessary.

SECTION 14: Transport information

Land transport (ADR/RID)

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

Hazard label:

8



Classification code:

C1

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:

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

Hazard label:

8

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

Marine transport (IMDG)

14.1. UN number: UN 2796
14.2. UN proper shipping name: BATTERY FLUID, ACID (SULFURIC 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
 Segregation group: acids

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 2796
14.2. UN proper shipping name: BATTERY FLUID, ACID (SULFURIC 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

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Warning: Corrosive. Corrosive to metals.

14.7. Transport in bulk according to Annex II of Marpol 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 regulatory information**

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

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Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
sulphuric acid

SECTION 16: Other information

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
 VOC: Volatile Organic Compounds
 SVHC: Substance of Very High Concern
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Relevant H and EUH statements (number and full text)

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

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.)