

Safety Data Sheet

Battery Acid Pack (Sulfuric Acid)

Replaces date: 12/04/2022

Revision date: 06/03/2023
Version: 2.0.0

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

1.1. Product identifier

Trade name: Battery Acid Pack (Sulfuric Acid)

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

Recommended uses: Conductive agents.

1.3. Details of the supplier of the safety data sheet

Supplier

Company: Kramp UK Ltd
Address: Unit 5
Lancaster Way
Zip code: SG18 8YL
City: Biggleswade
Country: UNITED KINGDOM
E-mail: sales.uk@kramp.com
Phone: +44(0)1767 602 600

1.4. Emergency Telephone Number

Members of the public: 111 (NHS 111 (Scotland: NHS 24)).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP-classification: Met. Corr. 1;H290
Skin Corr. 1A;H314

Most serious harmful effects: May be corrosive to metals. Causes severe skin burns and eye damage.

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2.2. Label elements

Pictograms



Signal word: Danger

Contains

Substance: sulphuric acid 40 %

Hazard Statements

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

Precautionary statements

P102 Keep out of reach of children.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+330+331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+361+353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P405 Store locked up.
P501 Dispose of contents/container in accordance with local regulation.

2.3. Other hazards

The product does not contain any PBT or vPvB substances.
Endocrine disrupting properties: None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	CAS No./ EC No./ REACH Reg. No.	Concentration	Notes	CLP-classification
Water	7732-18-5 231-791-2	60 - 70 %		
sulphuric acid ... %	7664-93-9 231-639-5	30 - 40 %		Skin Corr. 1A;H314 5% ≤ C < 15%: Skin Irrit. 2; H315 C ≥ 15%: Skin Corr. 1A; H314 5% ≤ C < 15%: Eye Irrit. 2; H319 ATE (vapours) (Acute toxicity - inhalation): 0.050 mg/l ATE (dust/mist) (Acute toxicity - inhalation): 0.005 mg/l

Please see section 16 for the full text of H- / EUH-phrases.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: Seek fresh air. Call a POISON CENTER or doctor/physician if you feel unwell.

Ingestion: Do not induce vomiting. Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Seek medical advice immediately.

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- Skin contact:** Remove contaminated clothing, watch and jewellery. Wash the skin thoroughly with water and continue washing for a long time. Seek medical advice immediately.
- Eye contact:** Open eye wide, remove any contact lenses and flush immediately with water (preferably using eye wash equipment). Seek medical advice immediately. Continue flushing until medical attention is obtained.
- General:** When obtaining medical advice, show the safety data sheet or label.

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

Has a caustic burning effect and causes burning pain, reddening, blistering and burning sores if it comes in contact with skin. Eye contact may result in deep caustic burns, pain, tearing and cramping of the eyelids. Risk of serious eye injury and loss of sight. Ingestion may cause caustic burning in mouth, oesophagus and stomach. Pains in mouth, throat and stomach. Difficulty swallowing, feeling unwell and vomiting of blood. Brown spots and burns may appear in and around the mouth.

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

Treat symptoms. Ensure that medical personnel are aware of the material involved, and take precautions to protect themselves.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media:** The product is not directly flammable. Choose extinguishing agents based on the surrounding fire.
- Unsuitable extinguishing media:** Do not use water stream, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

The product decomposes when combusted or heated to high temperatures and the following toxic gases can be formed: hydrogen / Sulphur oxides/ Carbon monoxide and carbon dioxide.

5.3. Advice for firefighters

Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit. Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases - seek fresh air. Extinguishing water which has been in contact with the product may be corrosive.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel:** Stay upwind/keep distance from source. Stop leak if this can be done without risk. Avoid inhalation/keep a distance. Wear gloves. Wear safety goggles/face protection. Provide good ventilation. Wear respiratory protective equipment.
- For emergency responders:** In addition to the above: Chemical protective suit equivalent to EN 943-2 is recommended.

6.2. Environmental precautions

Prevent spillage from entering drains and/or surface water.

6.3. Methods and material for containment and cleaning up

Contain and absorb spill with sand or other absorbent material and transfer to suitable waste containers. Caution! Causes burns. Rinse with water.

6.4. Reference to other sections

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See section 8 for type of protective equipment. See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Work under effective process ventilation (e.g. local exhaust ventilation). Running water and eye wash equipment must be available. A safety shower should be available. Wash hands before breaks, before using restroom facilities, and at the end of work.

7.2. Conditions for safe storage, including any incompatibilities

Store safely, out of reach of children and away from food, animal feeding stuffs, medicines, etc. Store in a dry, cool, well-ventilated area. Keep in tightly closed original packaging. Do not expose to heat (e.g. sunlight).
Do not store with the following: Alkaline metals/ Metals/ Combustible. Organic dust / Oxidisers/ Amines/ Alkalis/ Chlor / Iron / Nitrates / perchlorate / Permanganates / Phosphor compounds. / Steel / Zinc / Peroxides. / Cyanides / nitromethane / benzene

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit

Substance name	Time period	ppm	mg/m ³	fiber/cm ³	Remarks	Comments
sulphuric acid ... %	8h		0.05			

Measuring methods: Compliance with the stated occupational exposure limits may be checked by occupational hygiene measurements.

Legal basis: EH40/2005 Workplace exposure limits. Last amended January 2020.

8.2. Exposure controls

Appropriate engineering controls: Wear the personal protective equipment specified below.

Personal protective equipment, eye/face protection: Wear safety goggles/face protection. Eye protection must conform to EN 166.

Personal protective equipment, hand protection: Wear gloves. Type of material: Neoprene rubber. Breakthrough time has not been determined for the product. Change gloves often. Gloves must conform to EN 374. The suitability and durability of a glove is dependant on usage, e.g. frequency and duration of contact, glove material thickness, functionality and chemical resistance. Always seek advice from the glove supplier.

Personal protective equipment, respiratory protection: Use process ventilation. If this is not possible, use respiratory equipment. Filter type: E. Respiratory protection must conform to one of the following standards: EN 136/140/145.

Environmental exposure controls: Ensure compliance with local regulations for emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Parameter	Value/unit
State	Liquid

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Colour	Clear
Odour	Prickling
Solubility	Solubility in water: Completely miscible

Parameter	Value/unit	Remarks
Odour threshold	No data	
Melting point	No data	
Freezing point	No data	
Initial boiling point and boiling range	95 - 95.5 °C	
Flammability (solid, gas)	No data	
Flammability limits	No data	
Explosion limits	No data	
Flash Point		Not spontaneously flammable
Auto-ignition temperature	No data	
Decomposition temperature	No data	
pH (solution for use)	No data	
pH (concentrate)	No data	
Kinematic viscosity	No data	
Viscosity	No data	
Partition coefficient n-octanol/water	No data	
Vapour pressure	10 mmHg	20 °C.
Density	1.215 - 1.35 g/cm ³	
Relative density	No data	
Vapour density	No data	
Relative density (sat. air)	No data	
Particle characteristics	No data	

9.2. Other information

Parameter	Value/unit	Remarks
Evaporation rate	< 1	(butyl acetate=1)

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with metals to form hydrogen gas which may produce explosive hydrogen/air mixtures.
 Reacts with the following: Alkaline metals/ Combustible. Organic dust / Oxidisers/ Amines/ Alkalis/ Chlor / Iron / Nitrates / perchlorate / Permanganates / Phosphor compounds. / Steel / Zinc / Peroxides. / Cyanide / nitromethane / benzene

10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Do not expose to heat (e.g. sunlight).

10.5. Incompatible materials

Alkaline metals/ Combustible. Organic dust / Oxidisers/ Amines/ Alkalis/ Chlor / Iron / Nitrates / perchlorate / Permanganates / Phosphor compounds. / Steel / Zinc / Peroxides. / Cyanides / nitromethane / benzene

10.6. Hazardous decomposition products

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The product decomposes when combusted or heated to high temperatures and the following toxic gases can be formed: hydrogen / Sulphur oxides/ Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity - oral

sulphuric acid ... %, cas-no 7664-93-9

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		2140 mg/kg bw/day			

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - dermal: The product does not have to be classified. Test data are not available.

Acute toxicity - inhalation

sulphuric acid ... %, cas-no 7664-93-9

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LC50		510 mg/m ³			
	ATE (vapours)	4 h	0.050 mg/l			
	ATE (dust/mist)	4 h	0.005 mg/l			

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Skin corrosion/irritation: Has a caustic burning effect and causes burning pain, reddening, blistering and burning sores if it comes in contact with skin.

Serious eye damage/eye irritation: Eye contact may result in deep caustic burns, pain, tearing and cramping of the eyelids. Risk of serious eye injury and loss of sight.

Respiratory sensitisation or skin sensitisation: The product does not have to be classified. Test data are not available.

Germ cell mutagenicity: The product does not have to be classified. Test data are not available.

Carcinogenic properties: The product does not have to be classified. Test data are not available.

Reproductive toxicity: The product does not have to be classified. Test data are not available.

Single STOT exposure: The product does not have to be classified. Test data are not available.

Repeated STOT exposure: The product does not have to be classified. Test data are not available.

Aspiration hazard: The product does not have to be classified. Test data are not available.

11.2. Information on other hazards

Endocrine disrupting properties: None known.

Other toxicological effects: Ingestion may cause caustic burning in mouth, aoesophagus and stomach. Pains in mouth, throat and stomach. Difficulty swallowing, feeling unwell and vomiting of blood. Brown spots and burns may appear in and around the mouth.

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SECTION 12: Ecological information

12.1. Toxicity

sulphuric acid ... %, cas-no 7664-93-9

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Brachydanio rerio		24hLC50	82 mg/l			

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

12.2. Persistence and degradability

Not expected to be biodegradable.

12.3. Bioaccumulative potential

No bioaccumulation expected. Test data are not available.

12.4. Mobility in soil

Test data are not available.

12.5. Results of PBT and vPvB assessment

No assessment required, as the product contains inorganic matter only.

12.6. Endocrine disrupting properties

None known.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid discharge to drain or surface water. If this product as supplied becomes a waste, it meets the criteria of a hazardous waste (Dir. 2008/98/EU). Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site.

Empty, cleansed packaging should be disposed of for recycling. Uncleansed packaging is to be disposed of via the local waste-removal scheme.

Category of waste:

EWC code: Depends on line of business and use, for instance 16 06 06* separately collected electrolyte from batteries and accumulators

Absorbent/cloth contaminated with the product: EWC code: 15 02 02* absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: 2796**14.2. UN proper shipping name:** BATTERY FLUID, ACID (sulphuric acid ... %)**14.4. Packing group:** II**14.5. Environmental hazards:**

The product should not be labelled as an environmental hazard (symbol: fish and tree).

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14.3. Transport hazard class(es):	8		
Hazard label(s):	8		
Hazard identification number:	80	Tunnel restriction code:	E

Inland water ways transport (ADN)

14.1. UN number or ID number:	2796	14.4. Packing group:	II
14.2. UN proper shipping name:	BATTERY FLUID, ACID (sulphuric acid ... %)	14.5. Environmental hazards:	The product should not be labelled as an environmental hazard (symbol: fish and tree).
14.3. Transport hazard class(es):	8		
Hazard label(s):	8		
Transport in tank vessels:			

Sea transport (IMDG)

14.1. UN number or ID number:	2796	14.4. Packing group:	II
14.2. UN proper shipping name:	BATTERY FLUID, ACID (sulphuric acid ... %)	14.5. Environmental hazards:	The product is not a Marine Pollutant (MP).
14.3. Transport hazard class(es):	8	Environmental Hazardous Substance Name(s):	
Hazard label(s):	8		
EmS:	F-A, S-B	IMDG Code segregation group:	Segr. grp. 1 - Acids (SGG1)

Air transport (ICAO-TI / IATA-DGR)

14.1. UN number or ID number:	2796	14.4. Packing group:	II
14.2. UN proper shipping name:	BATTERY FLUID, ACID (sulphuric acid ... %)	14.5. Environmental hazards:	The product should not be labelled as an environmental hazard (symbol: fish and tree).
14.3. Transport hazard class(es):	8		
Hazard label(s):	8		

14.6. Special precautions for user

None.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

Special Provisions: Special care should be applied for employees under the age of 18. Young people under the age of 18 may not carry out any work causing harmful exposure to this product.

Covered by:
 Council Directive (EC) on the protection of young people at work.

Regulation (EU) of the European Parliament and of the Council on the marketing and use of explosives precursors.

15.2. Chemical Safety Assessment

Other Information: Chemical safety assessment has not been performed.

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SECTION 16: Other information

Version history and indication of changes

Version	Revision date	Responsible	Changes
2.0.0	06/03/2023	Bureau Veritas HSE / SJU	2,16

Abbreviations:

PBT: Persistent, Bioaccumulative and Toxic
vPvB: Very Persistent and Very Bioaccumulative
STOT: Specific Target Organ Toxicity

Other Information:

This safety data sheet has been prepared for and applies to this product only. It is based on our current knowledge and the information that the supplier was able to provide about the product at the time of preparation. The safety data sheet complies with applicable law on preparation of safety data sheets in accordance with Regulation 1907/2006/EC "The Registration, Evaluation and Authorization of Chemicals" as amended by the stationary UK REACH etc. (EU Exit) as subsequently changed.

Training advice:

A thorough knowledge of this safety data sheet should be a prerequisite condition.

Classification method:

Calculation based on the hazards of the known components. Test data.

List of relevant H-statements

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

SDS is prepared by

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