Material Safety Data Sheet

Battery Acid 25 LTR (RXSOL-15-1103-025)

1. Product and Company Identifaction

Product Name	Battery Acid 25 LTR
Part Number	RXSOL-15-1103-025

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Branch : Kandla, Mumbai , Chennai, Vizag, Kolkata, UAE , OMAN , CANADA and KENYA

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2. Composition / informationon ingredients

Substances

Formula	H_2O_4S
Molecular weight	98,08 g/mol
CAS-No.	7664-93-9
EC-No.	231-639-5
Index-No.	016-020-00-8

Component	Classification	Concentration
Sulphuric acid CAS-No. 7664-93-9 EC-No. 231-639-5 Index-No. 016-020-00-8	Met. Corr. 1; Skin Corr. 1A; Eye Dam. 1; H290, H314, H318 Concentration limits: >= 15 %: Skin Corr. 1A, H314; 5 - 15 %: Skin Irrit. 2, H315; 5 - 15 %: Eye Irrit. 2, H319; >= 0,3 %: Met. Corr. 1, H290;	= 25-30 %

3. Hazards Identification

Classification of the substance or mixture

Corrosive to Metals, (Category 1)	H290: May be corrosive to metals.
Skin corrosion, (Sub-category 1A)	H314: Causes severe skin burns and eye damage.
Serious eye damage, (Category 1)	H318: Causes serious eye damage.

Label elements

Signal Word	Danger
Hazard statement	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage.

Precautionary statement	P234 Keep only in original packaging. 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. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P363 Wash contaminated clothing before reuse.
Supplemental Hazard Statements	None
Reduced Labeling (= 125 ml)	
Signal Word	Danger
Hazard Statements	H314 Causes severe skin burns and eye damage.
Precautionary Statements	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. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P363 Wash contaminated clothing before reuse.
Supplemental Hazard Statements	None
Other hazards	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

4. First Aid Measures

General Advice	First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air. Call in physician.
In case of skin contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
In case of eye contact	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
If swallowed	After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.
Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed	No data available

5. Fire-fighting Measures

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Special hazards arising from the substance or mixture	Sulfur oxides Not combustible. Ambient fire may liberate hazardous vapours.
Advice for firefighters	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing
Further information	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Environmental precautions	Do not let product enter drains.
Methods and material for containment and cleaning up	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® H ?, Merck Art. No. 101595). Dispose of properly. Clean up affected area.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

Precautions for safe handling	For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities	
Storage conditions	No metal containers. Tightly closed.
Storage class	Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls and personal protection

Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1.
Skin protection	This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1. Splash contact Material: butyl-rubber Minimum layer thickness: 0,7 mm Break through time: 120 min
Body Protection	Acid-resistant protective clothing
Respiratory protection	Recommended Filter type: Filter type P2 The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
Control of environmental exposure	Do not let product enter drains.

9. Physical and chemical properties

Physical state	Clear, liquid
Color	Colorless
Odor	Odorless
Melting point/freezing point	Melting point: 10,31 °C
Initial boiling point and boiling range	290 °C - lit.
Flammability (solid, gas)	No data available
Flammability or explosive limits	No data available
Flash point	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
pH	1,2 at 5 g/l

Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 23 mPa.s at 20 °C
Water solubility	Soluble
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Vapor pressure	1,33 hPa at 145,8 °C
Density	1.20-1.30 g/ml at 25 °C - lit.
Relative density	No data available
Relative vapor density	No data available
Particle characteristics	No data available
Explosive properties	No data available
Oxidizing properties	None
Other safety information	
Surface tension	55,1 mN/m at 20 °C
Relative vapor density	3,39 - (Air = 1.0)

10. Stability and reactivity

Reactivity	No data available
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature)
Possibility of hazardous reactions	A risk of explosion and/or of toxic gas formation exists with the following substances: Water Alkali metals alkali compounds Ammonia Aldehydes acetonitrile Alkaline earth metals alkalines Acids alkaline earth compounds Metals metal alloys Oxides of phosphorus phosphorus hydrides halogen-halogen compounds oxyhalogenic compounds permanganates nitrates carbides combustible substances organic solvent acetylidene Nitriles organic nitro compounds anilines Peroxides picrates nitrides lithium silicide iron(III) compounds bromates chlorates Amines perchlorates hydrogen peroxide
Conditions to avoid	No information available
Incompatible materials	Animal/vegetable tissuesContact with metals liberates hydrogen gas.
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

Acute toxicity	LD50 Oral - Rat - male and female - 2.140 mg/kg Remarks: (ECHA) Inhalation: No data available Dermal: No data available
Skin corrosion/irritation	Skin - Rabbit Result: Extremely corrosive and destructive to tissue. Remarks: (IUCLID)
Serious eye damage/eye irritation	Remarks: Causes serious eye damage.
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	Test Type: Ames test Test system: Salmonella typhimurium Result: negative Remarks: (HSDB)
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional Information	
Endocrine disrupting properties Product	
Assessment	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. RTECS: WS5600000 Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Pulmonary edema. Effects may be delayed. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. After inhalation of aerosols: damage to the affected mucous membranes. After skin contact: severe burns with formation of scabs. After eye contact: burns, corneal lesions. After swallowing: severe pain (risk of perforation!), nausea, vomiting and diarrhoea. After a latency period of several weeks possibly pyloric stenosis. Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

Toxicity	
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	Static test ErC50 - Desmodesmus subspicatus (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201)
Persistence and degradability	The methods for determining the biological degradability are not applicable to inorganic substances.
Bioaccumulative potential	No data available
Mobility in soil	No data available
Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Endocrine disrupting properties	No data available

Other adverse effects	Biological effects: Harmful effect due to pH shift. Caustic even in diluted form. Does not cause biological oxygen deficit. Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities. Neutralisation possible in waste water treatment plants. Discharge into the environment must be avoided.

13. Disposal considerations

Waste Treatment Methods	No data available

14. Transport information

UN number	ADR/RID: 1830 IMDG: 1830 IATA: 1830
UN proper shipping name	ADR/RID: SULPHURIC ACID IMDG: SULPHURIC ACID IATA: Sulphuric acid
Transport hazard class(es)	ADR/RID: 8 IMDG: 8 IATA: 8
Packaging group	ADR/RID: II IMDG: II IATA: II
Environmental hazards	ADR/RID: No IMDG Marine pollutant: No IATA: No
Special precautions for user	
Tunnel restriction code	(E)
Further information	No data available

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
Authorisations and/or restrictions on use Regulation (EU) 2019/1148 on the marketing and use of explosives precursors	Sulphuric acid
Other regulations	Take note of Dir 94/33/EC on the protection of young people at work.
Chemical Safety Assessment	A Chemical Safety Assessment has been carried out for this substance.

16. Other information

Other Information	The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and weassume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.