

MATERIAL SAFETY DATA SHEET

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BATTERY FLUID, ACID**COMPANY DETAILS**

Company: Century Yuasa Batteries Pty Ltd (A.C.N. 009685232)
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Hazardous according to criteria of Worksafe Australia.**IDENTIFICATION**

Product Name:	BATTERY FLUID, ACID	UN Number:	2796
Other Names:	Sulphuric Acid 1270, Electrolyte Sulphuric Acid, Battery Acid	Hazchem Code:	2R
Manufacturer's Product Code:	Sulphuric Acid (Electrolyte)	Dangerous Goods:	8
Use:	Electrolyte for Lead-acid batteries	Packaging Group:	II
		Poisons Schedule:	S6
		Flashpoint (°C):	not applicable
		Flammability Limits (%):	not applicable
		Solubility in Water:	100%

Physical Description Properties

Appearance: Clear, Colourless, Odourless, Mobile liquid
 Boiling/Melting Point (°C): No information available
 Vapour Pressure: No information available
 Specific Gravity: 1.270 @ 25°C

Other Properties

pH < 1

<u>Ingredients</u>	<u>Chemical Entity</u>	<u>CAS Number</u>	<u>Proportion</u>
Sulphuric Acid		7664-93-9	35.6%
Water			To 100%

HEALTH HAZARD INFORMATION**Health Effects****Acute Effects:**

Swallowed: Swallowing may cause nausea, vomiting of blood and eroded tissue, chemical burns of mouth, throat and abdomen; perforation of the gastrointestinal tract.

Eye: Contamination of eye may result in permanent injury. Corrosive to eyes. Contact can cause corneal burns.

Skin: Corrosive to skin. Contact with skin may cause burns.

Inhaled: Inhalation of mists or aerosols can cause mucous membrane or respiratory irritation. Exposure to high concentrations of the acid in liquid form or as a mist may lead to pulmonary oedema.

Chronic Effects: Evidence available indicates exposure to strong inorganic acid mists containing sulphuric acid is carcinogenic to humans⁽¹⁾.

⁽¹⁾World Health Organisation: IARC. Copy draft report "Acid Toxicology" File, Chem Prods NW Registry.

First Aid:

Swallowed: If conscious, immediately rinse mouth with water & give water to drink. DO NOT induce vomiting. Seek immediate medical assistance.

Eye: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical assistance.

Skin: Remove contaminated clothing. Wash affected area with large amount of water. If swelling, redness, blistering or irritation develops seek immediate medical assistance. For skin burns, immediately flood burnt area with plenty of water and cover with a clean, dry dressing. Seek immediate medical advice.

Inhaled: Remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing laboured ensure airways are clear and administer oxygen. If breathing has stopped apply artificial respiration at once. Seek immediate medical assistance.

Advice to Doctor: Treat symptomatically and as for exposure to acidic corrosive substances.

PRECAUTIONS FOR USE**Exposure Standards:**

No value assigned for this specific material by the National Occupational Health and Safety Commission (Worksafe Australia).

Worksafe exposure standard for constituent Sulphuric Acid are:

TWA: 1mg/m³
STEL: 3mg/m³

Engineering Controls:

Ensure ventilation is adequate and that air concentration of components are controlled below the Exposure Standard. Use with local exhaust ventilation or while wearing acid mist respirator or air supplied mask. Keep containers closed when not in use.

Personal Protection:

Avoid all contact. Wear overalls, safety glasses or goggles and face shield, chemical resistant gloves, chemical suit and boots. If inhalation risks exist, wear air-supplied mask meeting the requirements of AS/NZ 1715 and AS/NZ 1716. Always wash hands before smoking, eating, drinking or using the toilet.

Flammability: Non-combustible material.

SAFE HANDLING INFORMATION**Storage and Transport:**

Classified as a Class 8 Dangerous Goods by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Store away from organic and other combustible materials, oxidising agents and foodstuffs. Highly reactive towards metals in the presence of moisture, liberating hydrogen gas. Keep containers closed at all times. Keep dry-reacts with water which may lead to drum rupture. Use with great caution in mixing with water due to heat evolution that causes violent splattering. ALWAYS ADD ACID TO WATER, NEVER THE REVERSE

Spills:

Slippery when wet. Wear proper protective equipment to prevent skin and eye contact and inhalation of mist. Contain using sand, earth, inert material or vermiculite. Carefully dilute with water (fine spray or fog) then neutralise with lime or soda ash. With a clean shovel, transfer spilled material into clean-labelled containers for disposal. Wash area down with excess water. Do not allow water to enter containers of acid as a violent reaction may occur.

Prevent from entering drains, sewers, streams or other bodies of water. If contamination of sewers or waterways has occurred, advise the local emergency services.

Disposal:

Dispose in accordance with federal, state or local regulations.

After dilution or neutralisation, normally suitable for disposal at approved land waste site.

Empty containers must be decontaminated.

Fire/Explosion Hazards:

Not considered to be a fire hazard. However if involved in a fire will emit toxic fumes including sulphuric acid fumes and sulphur dioxide. Reaction with certain metals will produce flammable hydrogen gas, which will burn if ignited. Heating may cause expansion or decomposition leading to violent rupture of containers. Fire fighters to wear self contained breathing apparatus and full protective clothing when fighting fire.

Extinguishing Media: Water fog (if unavailable water spray), foam, carbon dioxide or dry chemical powder.

Toxicity: No toxicity data available for the product, however for the component.

Sulphuric Acid (100%):

ORAL LD50 (rat): 2140 mg/kg

ORAL LC50 (rat): 510 mg/M3/2H

Environmental Impact: Avoid contaminating waterways.

Stability and Reactivity:

Powerful oxidising agent. Can react explosively with organic materials. Highly corrosive to most metals in the presence of moisture. Mixes exothermically with water, which may cause violent splattering.

Hazard Category: Corrosive.

Risk Phrases:

R35: Cause severe burns.

R58: May cause long term adverse effects in the environment.

Safety Phrases:

S1/2: Keep locked up and out of reach of children.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S30: Never add water to this product.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).

CONTACT POINT

Technical Manager: (07) 3361 6161

Company Disclaimer:

This Material Safety Data Sheet is offered solely for information, consideration and investigation to determine the suitability of adopting safety and health precautions as may be necessary under the user's specific conditions and processes. All such conditions and processes are beyond the control of Century Yuasa Batteries Pty. Ltd.

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