

MATERIAL SAFETY DATA SHEET

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PRODUCT IDENTIFICATION *Capattery* carbon-sulfuric acid double layer capacitor

I. HAZARDOUS INGREDIENTS

Component	CAS #	OSHA PEL ppm	ACGIH TLV ppm	Nature of Hazard	Max. %
Sulfuric acid	7664-93-9	1mg/m ³	1mg/m ³	Corrosive	5
Tantalum	7440-25-7	5mg/m ³	5mg/m ³	Fire, Irritant	50

II. OTHER INGREDIENTS

Material	%
Carbon powder	<20
Butyl rubber	<25
PTFE	<5
Sealing glass	<1

III. PHYSICAL DATA

Maximum Operating Temperature see product literature.

Specific Gravity 5

IV. FIRE AND EXPLOSION HAZARD DATA

Device is not normally flammable. Case may rupture if exposed to high temperatures for prolonged periods, or if severe over-voltage is applied to the device. Sulfuric acid reacts exothermally with water. Polymeric materials will decompose to evolve toxic fumes upon exposure to high temperature or open flame. Finely divided particles (dust) of tantalum are flammable. Avoid cutting, grinding, filing, or machining the tantalum case. Do not incinerate.

V. REACTIVITY DATA

Device is normally stable. Charging and discharging rate are self-limiting, as long as voltage does not exceed rating. See device labeling or product literature. Do not exceed temperature rating. Prolonged operation of devices over rated voltage could cause internal heating and case rupture.

VI. HEALTH HAZARD DATA

Sulfuric Acid: TLV 1mg/cubic meter in air. LD50=2140mg/kg. Extremely irritating, corrosive, and toxic to tissues. Contact with the body results in rapid destruction of tissue, causing severe burns.

First aid procedures: Eye contact, irrigate with water for at least 15 minutes. Seek physician.
Skin contact, flush copiously with water. Seek physician.
Ingestion, do not give emetic, give water, milk, or milk of magnesia.
Seek physician.

Tantalum: Solid metal not hazardous. Inhalation of dust or fume may cause irritation of the lung and mucous membranes. Avoid creating dust or fume per Item IV above.

Butyl Rubber: Cured rubber products not toxic.

PTFE: Teflon is inert under normal conditions.

Carbon: Dust slightly irritating, particularly to the eyes and mucous membranes.

Sealing Glass: Non-toxic.

VII. DISPOSAL

Dispose of unwanted or unsalvageable devices in accordance with local, state, and federal regulations.

VIII. SPECIAL INSTRUCTIONS

Normal exposure to tantalum metal is not hazardous. Avoid exposure to finely divided tantalum. To reduce risk of exposure to sulfuric acid, do not cut, drill, puncture, grind, or machine case. Do not incinerate.

This information was taken from sources believed to be reliable and correct. User is responsible to determine the suitability of a device for a specific application.