

MATERIAL SAFETY DATA SHEET
PM Series SuperCapacitor (Electrochemical Double Layer Capacitor)
Cooper Bussmann

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION

PM Series PowerStor Supercapacitor

MANUFACTURER

Cooper Bussmann
114 Old State Road
Ellisville, MO 63021
Phone: 636-527-3877

EMERGENCY TELEPHONE NUMBERS

(800) 424-9300 (U.S. / Canada)
1 (703) 527-3887 (International)

2. COMPOSITION INFORMATION

HAZARDOUS INGREDIENTS	%	CAS NUMBER
Quaternary Ammonium Salt	proprietary	NA
Propylene Carbonate	proprietary	108-32-7
Acetonitrile	proprietary	75-05-8

NOTE: Under normal use and handling the customer has no contact with the internal components of the capacitor or the chemical hazards. Under normal use and handling, these capacitors do not emit regulated or hazardous substances.

3. HAZARDS IDENTIFICATION

NFPA/HMIS RATING (0 = minimal, 1 = slight, 2 = moderate, 3 = serious, 4 = severe)

Ammonium Salt: Health = 1, Fire = 1, Reactivity = 0.
Propylene Carbonate: Health = 1, Fire = 1, Reactivity = 0.
Acetonitrile: Health = 2, Fire = 3, Reactivity = 0.

GENERAL SAFETY CONSIDERATIONS

- Cells may vent/rupture if overcharged, reverse charged, incinerated or heated above 150 °C.
- Do not crush, mutilate, nail penetrate or disassemble.
- High case temperature may result from electrical abuse of the cell.

NOTE: No effect under routine handling and use of capacitor. If the outer casing of the cell is ruptured, exposure to small amounts of internal materials within the cell may occur.

PRIMARY ROUTES OF ENTRY

By inhalation (vapor), skin, eyes and ingestion

SYMPTOMS OF EXPOSURE

Skin contact:	Causes irritation. Acetonitrile may be absorbed through skin producing effect similar to those described for inhalation.
Eye contact:	Irritant. Can cause redness and pain.
Inhalation:	Acetonitrile vapor can cause respiratory tract irritation. Exposure to high concentrations of vapor can cause headache, nausea, vomiting, respiratory depression, weakness, irregular heart beat, and abdominal pain.
Ingestion:	May cause irritation and symptoms similar to those described for inhalation. Large amounts of acetonitrile ingestion may be fatal.

REPORTED AS CARCINOGEN NA

4. FIRST AID MEASURES

Under normal use and handling of capacitor:

INHALATION

Not a health hazard.

EYE CONTACT

Not a health hazard.

SKIN CONTACT

Not a health hazard.

INGESTION

If swallowed, obtain medical attention immediately.

NOTE: If the outer casing of the cell is damaged, and exposure to internal materials within the cell occurs, the following actions are recommended:

INHALATION

Remove to fresh air. If necessary, administer oxygen and seek medical attention.

EYE CONTACT

Rinse eyes with water for 15 minutes and seek medical attention.

SKIN CONTACT

Immediately flush the contaminated skin with water. If this chemical penetrates the clothing, immediately remove the clothing and flush the skin with water. Seek medical attention.

INGESTION

Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Seek medical attention.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flash Point:	68°F (20°C) (Acetonitrile)
Flash Point Method:	N/A
Autoignition Temperature:	975°F (524°C) (Acetonitrile)
Flammability Limit :	Lower: N/A Upper: N/A
Flame Propagation Rate:	N/A (Solids)

GENERAL HAZARD

If heated above 150°C, cell(s) may rupture/vent. Dangerous fire hazard when exposed to open flames, excess heat or other sources of ignition. Combustion of internal organic materials emit toxic fumes under fire conditions.

EXTINGUISHING MEDIA

Use fire extinguisher type A,B, C or D.

SPECIAL FIREFIGHTING INSTRUCTIONS

Use NIOSH/OSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear. Use non-sparking tools and equipment.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION

Always wear recommended personal protective equipment. Eliminate sources of ignition and ensure adequate ventilation.

METHOD FOR CLEANUP AND DISPOSAL

Place material into a tightly closed chemical waste container and dispose of as hazardous waste.

7. HANDLING AND STORAGE

HANDLING

No special protective clothing required for handling individual cells. Do not puncture or crush the capacitor.

STORAGE

Store in a cool, dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

Keep away from heat and open flame. Store in a cool, dry place.

PERSONAL PROTECTION

Respirator: Not required during normal operations.

Eye/face protection: Not required beyond safety practices of employer.

Gloves: Not required for routine handling of cells.

Foot protection: Steel-toed shoes recommended for large container handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

State:	Solid
Odor:	NA
pH:	NA
Vapor pressure:	NA
Vapor density:	NA
Boiling point:	NA
Solubility in water:	Insoluble
Specific gravity:	~2.5

10. STABILITY AND REACTIVITY

REACTIVITY

None

INCOMPATIBILITIES

None during normal operation. Avoid exposure to heat, open flame, and corrosives.

HAZARDOUS DECOMPOSITION PRODUCTS

None during normal conditions.

CONDITIONS TO AVOID

Avoid exposure to heat and open flame. Do not puncture, crush or incinerate.

11. TOXICOLOGICAL INFORMATION

This product is not toxic during routine handling and use.

Sensitization:	NO
Teratogenicity:	NO
Reproductive Toxicity:	NO
Acute Toxicity:	NO

If cells are opened through misuse or damage, discard immediately.

12. ECOLOGICAL INFORMATION

Under normal conditions, cells pose no risk to persons or the surrounding environment.

13. DISPOSAL CONSIDERATIONS

Do not dispose in trash. Disposal should be done in accordance with Federal, state or local regulations.

14. TRANSPORT INFORMATION

DOT Hazard Class: Nonregulated

15. REGULATORY INFORMATION

OSHA hazard communication standard (29 CFR §1910.1200)

Hazardous Non-hazardous

16. OTHER INFORMATION

NA: Not Applicable
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