

MATERIAL SAFETY DATA SHEET

SECTION 0.1: HISTORY

Document Number: MSDS-102			
Version	Item	Description	Date
V01	Origin	Initial Release	09.26.2013

SECTION 0.2: PRODUCTS

Product Category	Phase Change Material (PCM)
Model name	All PCM parts using 55C Wax, (120001)

SECTION 1: MANUFACTURER'S INFORMATION

Manufacturer	AllCell Technologies
Address	2321 W. 41 st St. Chicago, IL 60609 USA
Phone	+1 (773) 922-1155
Emergency Phone	Professional Emergency Resource Services 1-800-633-8253 P.O. Box 1560 Ogden, UT 84402-1560 www.pers-er.com
Date Prepared	7/23/2013

SECTION 2: MATERIAL AND INGREDIENTS INFORMATION

Chemical Name	CAS Number	Concentration
Paraffin Wax	8002-74-2	~80%
Natural Graphite	7782-42-5	~20%

SECTION 3: HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY

Skin contact, Skin absorption, Eye contact, Inhalation, and Ingestion: May cause irritation. Not likely under normal product use conditions.

SYMPTOMS OF EXPOSURE

- Skin contact: No effect under routine handling and use.
- Skin absorption: No effect under routine handling and use.
- Eye contact: No effect under routine handling and use.
- Inhalation: No effect under routine handling and use.

REPORTED AS CARCINOGEN: Not applicable

SECTION 4: FIRST-AID MEASURES

- Inhalation: Move to area with fresh air. Blow nose, gargle. Seek medical attention if necessary.
- Skin contact: No immediate hazard. Wash the contact region with soap and water if necessary. If any irritation persists, seek medical attention.
- Eye contact: Immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention.
- Ingestion: Seek medical attention if necessary.

SECTION 5: FIRE-FIGHTING MEASURE

- Suitable extinguishing media: CO₂, dry chemical, foam, or water.
- Specific hazards: Carbon monoxide with incomplete combustion.
- Specific methods of fire-fighting: Wear NIOSH approved self-contained breathing apparatus to fight a fire involving this material. Firefighters wear full protective gear.

NFPA Hazard Rating:

- Health: 1
- Fire: 1
- Reactivity: 0

NFPA Scale: 0 = Minimal 1, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe

SECTION 6: ACCIDENTAL RELEASE MEASURES

- Personal precautions: Remove leaked materials with protective equipment (protective glasses and protective gloves).
- Environmental precautions: Follow local regulations for disposal.
- Method of cleaning up: Carefully sweep up material and wash floor with soap and water. Containerize for solid waste disposal.

SECTION 7: PRECAUTIONS FOR SAFE STORAGE AND HANDLING

Storage	Store in a cool, well-ventilated, dry area. Do not expose to temperature above 70°C.
Handling	PCM, being conductive, can cause short circuits and other electrical malfunctions. Use caution.
Disposal	Dispose in accordance with applicable federal, state and local regulations.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Respiratory Protection: Not necessary under normal use.
- Eye Protection: Not necessary under normal use. Eye wash fountains are recommended.
- Hand Protection: Use gloves to protect from spread of graphite. PCM may be hot during use.
- Skin Protection: Not necessary under normal use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Physical state: Solid
- Form: Irregular/Rectangle
- Color: Black
- Odor: No odor
- pH: NA
- Melting Point: 55°C (131°F) The composite does not completely melt, but can become very soft and tacky at this temperature.
- Flash point: 190°C (374°F)
- Specific Gravity: .94 @ 25°C (77°F)
- Explosion properties: NA
- Density: NA
- Solubility: Insoluble in water

SECTION 10: STABILITY AND REACTIVITY

- Stability: Stable under normal conditions
- Materials to avoid: Conductive materials, strong oxidizers, acids and alkalis.
- Hazardous decomposition products: Carbon monoxide with incomplete combustion.

SECTION 11: TOXICOLOGICAL INFORMATION

This product does not produce toxicological properties during routine handling and use.

Sensitization: NO	Teratogenicity: NO	Reproductive toxicity: NO	Acute toxicity: NO
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- Irritation: Not applicable
- Neurological Effects: Not applicable.
- Sensitization: Not applicable.
- Teratogenicity: Not applicable.
- Reproductive Toxicity: Not applicable.
- Mutagenicity (Genetic Effects): Not applicable.
- Toxicologically Synergistic Materials: Not available.

SECTION 12: ECOLOGICAL INFORMATION

- No information available for the product

SECTION 13: DISPOSAL CONSIDERATIONS

- Disposal: Follow all federal, state, and local regulations.
- Contaminated packaging: Neither a container nor packing is contaminated during normal use.

SECTION 14: TRANSPORT INFORMATION

Not regulated

SECTION 15: REGULATORY INFORMATION

No known state or federal regulations