

# MATERIAL SAFETY DATA SHEET



**PRODUCT NAME:** BioPCM™ - 4Q  
**MANUFACTURER:** Phase Change Energy Solutions  
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[www.phasechange.com](http://www.phasechange.com)

For questions regarding this product, first call [1-800-283-7887](tel:1-800-283-7887)

If it is an emergency and there is no response, please contact the following:

**For emergencies in the US and Canada**, call CHEMTREC day or night at [800-424-9300](tel:800-424-9300)

**For emergencies outside the US and Canada** call CHEMTREC day or night at [703-527-3887](tel:703-527-3887)

## COMPOSITION/ INFORMATION ON INGREDIENTS

CAS #: Trade Secret

COMPONENT: Proprietary Blend of Emulsifiers, Gelling agents, Fatty Acids, Fatty Alcohols, Fatty Esters, and their derivatives.

## HAZARDS IDENTIFICATION

CLASSIFICATION: Classified as non-hazardous to humans and environment

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS):

HEALTH: 0 FLAMMABILITY: 1 REACTIVITY: 0

## FIRST AID

**SKIN CONTACT:** No skin irritation can be expected from short-term contact. Prolonged contact may lead to redness and irritation. Wash skin with soap and water upon contact. If skin irritation occurs, seek medical advice/attention.

**EYE CONTACT:** Possible Redness; irritation. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, and continue rinsing. If eye irritation persists, seek medical advice/attention

**INHALATION:** No irritation can be expected from short and medium term exposure. Remove source of contamination or move victim to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately.

**INGESTION:** May cause gastrointestinal irritation. Rinse mouth and do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration.

## FIRE FIGHTING

This Product is packaged in different formats to meet the requirements of the ASTM E84 test for the following classes:

1. Plenum: Flame Spread 0-25; smoke-developed 0-50
2. Class A: Flame Spread 0-25; smoke-developed 0-450
3. Class B: Flame Spread 26-75; smoke-developed 0-450
4. Class C: Flame Spread 76-200; smoke-developed 0-450

**HAZARDOUS PRODUCTS OF COMBUSTION:** Upon decomposition, this product emits carbon dioxide and/or low molecular weight hydrocarbons.

**PROPERTIES THAT COULD INCREASE FIRE OR EXPLOSION HAZARD:** Combustible when exposed to heat or flame

**EXTINGUISHING MEDIA:** Water, Foam, dry chemical, or Carbon Dioxide.

**FIRE FIGHTING INSTRUCTIONS:** Firefighters should wear full protective clothing including self contained breathing apparatus.

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATING:**

HEALTH: 0 FLAMMABILITY: 1 REACTIVITY: 0 PERSONAL PROTECTION: D

## ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Avoid contact with eyes. If a mist or vapor is generated, an appropriate NIOSH/MSHA approved respirator should be used. .

**ENVIRONMENTAL PRECAUTIONS:** Minimize contamination of drains, surface, and ground waters.

**METHODS FOR CLEANING UP SPILLS:** Absorb with inert material, such as sand or dry earth, and put spilled material in appropriate container for disposal.

## HANDLING & STORAGE

**HANDLING** No special personal protection is required under normal handling conditions.

**STORAGE:** No special storage is required. Keep away from heat, sparks, or open flames.

**SAFE STORAGE/TRANSPORT PRESSURE:** Ambient

## EXPOSURE CONTROLS/ PERSONAL PROTECTION

**EXPOSURE LIMITS:** No exposure limits have been established for this product.

**EXPOSURE GUIDELINES:** Wash hands or the exposed area with warm water and soap

**VENTILATION:** No respiratory protection is required under normal handling conditions

**PERSONAL PROTECTIVE EQUIPMENT:**

**SKIN/BODY PROTECTION:** No special personal protection is required under normal handling conditions.

**EYE PROTECTION:** No eye protection is required under normal handling conditions.

**ENGINEERING MEASURES:** No special engineering measures are needed.

## PHYSICAL & CHEMICAL PROPERTIES

**APPEARANCE:** Colorless liquid (above melting point)

**ODOR:** Odorless

**pH:** Not applicable

**MELTING POINT:** 4°C (39.2°F)

**BOILING POINT:** >260°C (504°F)

**FLASH POINT:** >113°C (235.4°F) -Pensky-Marten Closed Cup

**EVAPORATION RATE:** N/A

**VAPOR PRESSURE:** Not available

**VAPOR DENSITY (Air=1):** Not available

**RELATIVE DENSITY, g/mL:** 0.87 @ 25°C (77 °F)

**UPPER FLAMMABILITY LIMIT (UFL):** N/A

**LOWER FLAMMABILITY LIMIT (LFL):** N/A

**SOLUBILITY IN WATER:** insoluble

**AUTO-IGNITION TEMPERATURE:** does not ignite

**VISCOSITY:** Viscous, thick gel

**EXPLOSION LIMITS:** Doesn't contain explosive properties

**OXIDATION PROPERTIES:** Doesn't contain oxidizing properties

## CHEMICAL STABILITY & REACTIVITY INFORMATION

**REACTIVITY:** Not a self-reactive substance

**CHEMICAL STABILITY:** Stable under normal temperatures and pressure

**CONDITIONS TO AVOID:** Heat, flames, sparks and other sources of ignition

**MATERIALS TO AVOID:** Incompatible materials/oxidizing agents and strong bases

HAZARDOUS REACTIONS: Will not polymerize

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition will evolve carbon dioxide and/or low molecular weight hydrocarbons which may include irritant vapors

THERMAL DECOMPOSITION PRODUCTS: Oxides of carbon and water

### TOXOLOGICAL INFORMATION

EYE EFFECTS: No significant eye irritation can be expected from contact with this product.

SKIN EFFECTS: No skin irritation can be expected from single short-term exposure to this product. Prolonged or repeated contact may produce some irritation.

INGESTION: This product may be harmful if it is swallowed.

INHALATION EFFECTS: Dusts of this product may cause irritation of the nose, throat, and respiratory tract.

SUBCHRONIC EFFECTS: No known effects.

CHRONIC EFFECTS:

MUTAGENICITY: No data available for this product.

TERATOLOGY: No data available for this product.

CARCINOGENICITY: Not listed by: ACGIH, IARC, NTP, DFG or OSHA

CHEMICAL NAME DATA AGENCY: No limits established for this product.

REPRODUCTIVE TOXICITY: Not Listed in U.S. TRI Developmental Toxin and U.S. TRI Developmental Toxin

### ECOLOGICAL INFORMATION

AQUATIC TOXICITY: No data available

ECOTOXICOLOGICAL INFORMATION: No data available

BIOLOGICAL OXYGEN DEMAND (BOD5): No data available

CHEMICAL OXYGEN DEMAND (COD): No data available

OTHER ADVERSE EFFECTS: No data available

MOBILITY IN SOIL: Immobile

### DISPOSAL CONSIDERATIONS

Disposal method should be in accordance with local, state, national environment laws and regulations.

### TRANSPORT INFORMATION

DOT SHIPPING INFORMATION

PROPER SHIPPING NAME: Non-hazardous material

PACKING GROUP: Not applicable

SHIPPING NAME, IF RQ SHIPMENT: Not applicable

EMERGENCY RESPONSE GUIDEBOOK: Not available

LAND TRANSPORT ADR/RID/ADN: Not classified

U.S. DOT INFORMATION: Not classified

UN/NA NUMBER: Not applicable

MARINE POLLUTANT: None

REPORTABLE QUANTITY (RQ lbs):

No reportable quantity for this product

IATA/ICAO: Non-hazardous material

IMO: Non-hazardous material

### REGULATORY INFORMATION

GHS CLASSIFICATION: Not classified as hazardous material to human or environment

U.S. FEDERAL REGULATIONS: No product components are listed under: CERCLA (40 CFR 302.4) and SARA Sections: 302 (40 CFR 355), 311/312 (40 CFR 370.21), 313 (40 CFR 372.65)

CHEMICAL INVENTORY LISTING:

Europe (EINECS): Compliant

USA (TSCA): Compliant

Canada (DSL): Compliant

Australia (AICS): Compliant

Japan (ENCS): Compliant

China (IECSC): Compliant

Korea (ECL): Compliant

Philippines (PICCS): Compliant