	Document Type <b>Form</b>	Document Number <b>SDS-90004</b>	Revision <b>A</b>	Effective Date <b>26Jul2018</b>	Page <b>1 of 8</b>
	Form Title <b>PBT Safety Data Sheet for PCM 4C</b>				Owner <b>Engineering</b>

## Section 1, Identification of the substance/mixture and of the company

### 1.1 Product Identifier

Trade Name: 4C PCM

### 1.2 Relevant Identified uses of the substance or mixture and uses advised against

Uses of the substance/mixture: Thermal Storage

### 1.3. Details of the supplier of the safety data sheet

Pelican BioThermal  
3020 Niagara Lane N  
Plymouth, MN 55447

### 1.4 Emergency telephone number

CHEMTREC: 1-800-424-9300

## Section 2, Hazards identification

### 2.1 Classification of the substance or mixture

Classification (GHS-US)

Hazard Code: H304, H315

Hazard Class: May be fatal if swallowed and enters airways (Category 1), Causes skin irritation (Category 2)

Handle in accordance with Good Industrial Hygiene and Safety Procedure

### 2.2 Label elements

GHS-US labeling

Hazard Pictogram (GHS-US)



**Signal Word (GHS-US):** Danger

Hazard Statements (GHS-US):

H304: May be fatal if swallowed and enters airways

H315: Causes skin irritation

Precaution Statements (GHS-US):



P264: Wash thoroughly after handling

P280: Wear protective gloves/protective clothing/eyes protection/face protection

P321: Specific treatment (see SECTION 4)

P331: Do NOT induce vomiting

P362: Take off contaminated clothing and wash before reuse

 	Document Type <b>Form</b>	Document Number <b>SDS-90004</b>	Revision <b>A</b>	Effective Date <b>26Jul2018</b>	Page <b>2 of 8</b>
	Form Title <b>PBT Safety Data Sheet for PCM 4C</b>				Owner <b>Engineering</b>

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P302+P352: IF ON SKIN: Wash with soap and water

P332+P313: If skin irritation occurs: Get medical advice/attention

P405: Store locked up

P501: Dispose of contents/container in accordance with local, state and federal authorities.

### 2.3 Other Hazards

No additional information available

### 2.4 Unknown acute toxicity (GHS-US)

No data available

## Section 3, Composition/information on ingredients

### 3.1 Substance

Not applicable

### 3.2 Mixture:

Name	CAS #	%
Blend of Heavy Cut Hydrocarbons	Proprietary	Proprietary

\*The exact composition for this mixture is considered to be a Trade Secret withheld in accordance to 29 CFR.1910.1200

## Section 4, First-aid measures

### 4.1 Description of first aid measures

**First-aid measures general:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible)

**First-aid measures after inhalation:** IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing Use artificial respiration and oxygen if needed. Seek medical attention

**First-aid measures after skin contact:** IF ON SKIN: Immediately rinse with plenty of water (for at least 15 minutes). If irritation persists, seek medical attention.

**First-aid measures after eye contact:** IF IN EYES: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Consult a physician

**First-aid measures after ingestion:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Dilute stomach contents by drinking water. If vomiting occurs spontaneously, keep head below hips to prevent breathing vomit into lungs. Call physician immediately.



### 4.2 Most important symptoms and effects, both acute and delayed

**Symptoms/injuries:** Causes skin irritation. May be fatal if swallowed and enters airways.

**Symptoms/injuries after inhalation:** See Section 2.2.

**Symptoms/injuries after skin contact:** May cause skin irritation.

**Symptoms/injuries after eye contact:** May cause eye irritation.

 	Document Type <b>Form</b>	Document Number <b>SDS-90004</b>	Revision <b>A</b>	Effective Date <b>26Jul2018</b>	Page <b>3 of 8</b>
	Form Title <b>PBT Safety Data Sheet for PCM 4C</b>				Owner <b>Engineering</b>

**Symptoms/injuries after ingestion:** May cause gastrointestinal irritation, nausea, vomiting, and diarrhea if swallowed.

**Chronic symptoms:** No data available.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No additional information available

## Section 5, Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media:** Alcohol-resistant foam. Carbon dioxide. Dry powder. Water spray

### 5.2 Extinguishing media

**Fire hazard:** Flash Point > 200 F.

**Explosion hazard:** Product is not explosive.

**Reactivity:** No dangerous reactions known under normal conditions of use.

### 5.2 Advice for firefighters

**Firefighting instructions:** Do not dispose of fire-fighting water in the environment. Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.

**Protection during firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

## Section 6, Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**General measures:** Ventilate area. Avoid breathing vapors, mist or gas. Spill should be handled by trained clean-up crews. For personal protection see Section 8.

#### 6.1.1 For non-emergency personnel

**Protective equipment:** Wear Protective equipment as described in Section 8.

**Emergency procedures:** Contain the spill. Do not let product enter drains.

#### 6.1.2 For emergency responders

**Protective equipment:** Wear Protective equipment as described in Section 8.

### 6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.



### 6.3 Methods and material for containment and cleaning up

**For containment:** Prevent entry to sewers and public waters. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for cleaning up:** Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

### 6.4 Reference to other sections

No additional information available

 	Document Type Form	Document Number <b>SDS-90004</b>	Revision <b>A</b>	Effective Date <b>26Jul2018</b>	Page <b>4 of 8</b>
	Form Title <b>PBT Safety Data Sheet for PCM 4C</b>				Owner <b>Engineering</b>

## Section 7, Handling and Storage

### 7.1 Precautions for safe handling

**Precautions for safe handling:** Do not handle until all safety precautions have been read and understood. Wear proper safety equipment including chemically resistant gloves and safety glasses or goggles. Use with adequate ventilation. Wash thoroughly after handling. Do not get in eyes. Avoid prolonged or repeated contact with skin. Do not breathe mist or vapor. Do not swallow.

### 7.2 Conditions for safe storage, including any incompatibilities

**Storage conditions:** Keep only in the original container in a cool, well ventilated place away from: heat sources. Keep container tightly closed.

### 7.3 Specific end use(s)

No additional information available

## Section 8, Exposure controls/personal protection

### 8.1 Control parameters

Chemical Blend of Heavy Cut Hydrocarbons			
OSHA PEL (TWA) ppm - if units not stated	OSHA PEL (STEL) ppm - if units not stated	OSHA PEL (Ceiling) ppm - if units not stated	ACGIH-TLV
Not Established	Not Established	Not Established	Not Established

### 8.2 Exposure controls

**Personal protective equipment:** Chemical resistant gloves. Protective clothing. Safety glasses or goggles

**Hand protection:** Chemical resistant gloves.

**Eye protection:** Safety glasses or goggles.



**Skin and body protection:** Wear long sleeves. Wear suitable protective clothing.

**Respiratory protection:** Respiratory protection is not required. However, where excessive vapor, mist, or dust may result, use approved respiratory protection equipment.

## Section 9, Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear liquid or White Solid
Color	: No data available
Odor	: No data available.
Odor Threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available

 	Document Type <b>Form</b>	Document Number <b>SDS-90004</b>	Revision <b>A</b>	Effective Date <b>26Jul2018</b>	Page <b>5 of 8</b>
	Form Title <b>PBT Safety Data Sheet for PCM 4C</b>				Owner <b>Engineering</b>

Melting point : ~ 4 °C

Freezing point : ~ 4 °C

Boiling point : No data available

Flash point : > 200 F

Self-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapor pressure : No data available

Relative vapor density at 20 °C : No data available

Relative density : 0.762 g/ml

Solubility : NOT Soluble in water.

Log Pow : No data available

Log Kow : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

Explosive limits : No data available

## 9.2 Other information

No additional information available

## Section 10, Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2 Chemical stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3 Possibility of hazardous reactions

None known.

### 10.4 Conditions to avoid



Avoid intense heating.

### 10.5 Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

### 10.6 Hazardous decomposition products

**Thermal decomposition generates:** Carbon oxides (CO, CO<sub>2</sub>). No other decomposition products are known.

 	Document Type Form	Document Number <b>SDS-90004</b>	Revision <b>A</b>	Effective Date <b>26Jul2018</b>	Page <b>6 of 8</b>
	Form Title <b>PBT Safety Data Sheet for PCM 4C</b>				Owner <b>Engineering</b>

## Section 11, Toxicological information

### 11.1 Information on toxicological effects

**Oral LD50:** > 2,000 mg/kg (rat) Calculated

**Dermal LD50:** > 2,000 mg/kg (rabbit) Calculated

**Inhalation LC50:** No Data

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : See section 2.1 and 2.2

Symptoms/injuries after inhalation : See Section 4.

Symptoms/injuries after skin contact : See Section 4.

Symptoms/injuries after eye contact : See Section 4.

Symptoms/injuries after ingestion : See Section 4.

Chronic symptoms : No data available.

## Section 12, Ecological information

### 12.1 Toxicity

No Data.

### 12.2 Persistence and degradability

No Data.

### 12.3 Bio accumulative potential



No Data.

### 12.4 Mobility in soil

No Data.

### 12.5 Other adverse effects

No Data.

 	Document Type Form	Document Number <b>SDS-90004</b>	Revision <b>A</b>	Effective Date <b>26Jul2018</b>	Page <b>7 of 8</b>
	Form Title <b>PBT Safety Data Sheet for PCM 4C</b>				Owner <b>Engineering</b>

## Section 13, Disposal consideration

### 13.1 Waste treatment methods

**Waste treatment methods:** Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.

**Waste disposal recommendations:** Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

## Section 14, Transport information

### 14.1 UN number, proper shipping name, class and packaging group

Domestic Ground Shipments

Not DOT Regulated

### 14.2 Additional information

No additional information available

## Section 15, Regulatory Information

### 15.1 US Federal regulations

**TSCA Inventory:** The components of this product are proprietary.

**SARA Section 311/312, Hazard Category (40CFR 370.2):** None known.

**SARA Section 313, Toxic Release Reporting (40CFR Part372):** No listed substances known over 1.0%. (No known carcinogens over 0.1%).

**SARA Section 302, EHS Emergency Planning (40CFR Part 355):** No listed substances known over 1.0%.

**SARA Section 304, EHS Release Reporting (40CFR Part 355):** No listed substances known over 1.0%.

**CERCLA Section 102-103 HS Release Reporting (40 CFR par302-102a):** No listed substances known over 1.0%.

### 15.2 International regulations

#### 15.2.1 National regulations

No Data.

### 15.3 US State regulations

**California Prop. 65:** No listed substance known to be present.

## Section 16, Other Information

NFPA health hazard : 1



.....  
NFPA fire hazard : 1

.....  
NFPA reactivity : 0

#### HMIS III Rating

.....  
Health : 1

.....  
Flammability : 1

 	Document Type <b>Form</b>	Document Number <b>SDS-90004</b>	Revision <b>A</b>	Effective Date <b>26Jul2018</b>	Page <b>8 of 8</b>
	Form Title <b>PBT Safety Data Sheet for PCM 4C</b>				Owner <b>Engineering</b>

Physical : 0

Personal Protection : X

## **Disclaimer**

The information contained herein has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.