



# Safety Data Sheet

## Section 1 – Chemical Product and Company Identification

**Product name:** PureTemp 4  
**Product number:** 100400200

**Recommended use:** Thermal energy storage.

**Company information:** Entropy Solutions Inc.  
151 Cheshire Lane N., Suite 400  
Plymouth, MN 55441  
952-941-0306

**Emergency contact:** Call CHEMTREC Day or Night  
1-800-424-9300 (USA)  
+1 703-527-3887 (International)

## Section 2 – Hazards Identification

**GHS classification:** Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 2), H411

### GHS label elements, including precautionary statements

**Pictogram:**



**Signal word:** Warning

**Hazard statement(s):** H400, Very toxic to aquatic life.  
H411, Toxic to aquatic life with long lasting effects.

**Precautionary statement(s):** P273, Avoid release to the environment  
P391, Collect spillage  
P501, Dispose of contents/container to an approved waste disposal plant

## Section 3 – Composition/Information on Ingredients

| CAS #        | Component   |
|--------------|-------------|
| Trade Secret | Proprietary |

## Section 4 – First Aid Measures

### Description of first aid measures

**Inhalation:** If breathed in, move person to fresh air. If breathing is affected seek medical attention.

**Skin contact:** Wash immediately with soap and water. Cover irritated skin with an emollient. If irritation persists, get medical attention.

**Eye contact:** Immediately flush eyes with large amounts of water, continuing to flush for 15 minutes.  
**Ingestion:** Get immediate medical attention or advice. Do not induce vomiting.

**Most important symptoms and effects, both acute and delayed:** May cause skin dryness and irritation. May cause eye and gastrointestinal irritation.

**Indication of any immediate medical attention and special treatment needed:** No data available

### Section 5 – Firefighting Measures

#### Extinguishing media

**Suitable:** Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
**Unsuitable:** No data available.

**Special hazards:** Carbon oxides

**Advice for firefighters:** Wear self-contained breathing apparatus for firefighting, if necessary.

### Section 6 – Accidental Release Measures

**Personal precautions, protective equipment, and emergency procedures:** Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Eliminate all ignition sources. Evacuate personnel to safe areas. For personal protection see section 8.

**Environmental precautions:** Prevent further leakage or spillage, if safe to do so. Do not let product enter drains. Discharge into the environment should be avoided.

**Methods and materials for containment and clean up:** Absorb or cover with dry earth, sand or other non-combustible material and transfer for disposal. Use clean non-sparking tools to collect absorbed material. Keep in suitable, closed containers for disposal.

### Section 7 – Handling and Storage

**Precautions for safe handling:** Avoid contact with skin and eyes. Wash thoroughly after handling.

**Conditions for safe storage:** Keep the container tightly closed and in a cool, well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### Section 8 – Exposure Controls and Personal Protection

**Control parameters:** Contains no substances with occupational exposure limit values.

**Engineering controls:** Handle in accordance with good industrial hygiene and safety practices. Use appropriate ventilation.

#### Personal protective equipment

|                     |  |
|---------------------|--|
| <b>Eyes/face:</b>   | Use equipment for eye protection tested and approved under appropriate government standards, such as NIOSH (US) or EN 166 (EU).  |
| <b>Skin:</b>        | Use impervious gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of the contaminated gloves in an appropriate manner. Wash and dry hands. |
| <b>Body:</b>        | Wear impervious clothing.  |
| <b>Respiratory:</b> | Respiratory equipment is not required.   |
| <b>General</b>      | Eye wash fountain and emergency showers are recommended.   |

|   |
|---|
| <b>Section 9 – Physical and Chemical Properties</b> |
|---|

|  |   |
|--|---|
| <b>Physical state:</b>                               | Liquid/solid.                             |
| <b>Appearance:</b>                                   | Clear liquid. White solid.                |
| <b>Odor:</b>   | Musty                                     |
| <b>Odor threshold:</b>                               | No data available.                        |
| <b>pH:</b>   | No data available.                        |
| <b>Melting point:</b>                                | 4 °C (39.2 °F)                            |
| <b>Boiling point:</b>                                | 262 °C (504 °F)                           |
| <b>Flash point:</b>                                  | >112 °C (234 °F)                          |
| <b>Evaporation rate:</b>                             | No data available.                        |
| <b>Flammability (solid/gas):</b>                     | No data available.                        |
| <b>Upper/lower flammability or explosive limits:</b> | No data available.                        |
| <b>Vapor pressure:</b>                               | >0.0105 torr at 25 °C (77 °F)             |
| <b>Vapor density:</b>                                | No data available.                        |
| <b>Relative density:</b>                             | 0.87 g/mL at 25 °C (77 °F)                |
| <b>Water solubility:</b>                             | 0.00759 g/L at 25 °C (77 °F)              |
| <b>Partition coefficient: n-octanol/water</b>        | Log Pow: 5.43 at 20 °C (68 °F)            |
| <b>Auto-ignition temperature:</b>                    | No data available.                        |
| <b>Decomposition temperature:</b>                    | No data available.                        |
| <b>Viscosity:</b>                                    | 3.6 mm <sup>2</sup> /sec at 20 °C (68 °F) |
| <b>Explosive properties:</b>                         | No data available.                        |

**Oxidizing properties:** No data available.

### Section 10 – Stability and Reactivity

**Reactivity:** No data available.

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** No data available.

**Conditions to avoid:** No data available.

**Incompatible materials:** Strong oxidizing agents and bases.

**Hazardous decomposition products:** Carbon monoxide with incomplete combustion.

### Section 11 – Toxicological Information

#### Acute toxicity

**LD50 Oral – Rat:** > 2,000 mg/kg

**LC50 Inhalation – Rat:** > 5 mg/L (4 h)

**Dermal:** No data available.

**Carcinogenicity:** None of this product's components are identified as probable, possible, or confirmed carcinogens by ACGIH, IARC, OSHA, NIOSH, or NTP.

**Skin corrosion/irritation:** Skin- rabbit. No skin irritation, slight erythema possible.

**Eye irritation:** Eyes- rabbit. No eye irritation.

**Respiratory or skin sensitization:** No data available.

### Section 12 – Ecological Information

#### Toxicity

**Fish:** LC50 – *Oryzias latipes* - > 0.52 mg/L – 96 h

**Daphnia and other aquatic invertebrates:** EC50 – *Daphnia magna* – 0.255 mg/L – 48 h  
NOEC – *Daphnia magna* – 0.0814 mg/L – 21 d

#### Persistence

**Biodegradability:** 78%, 28 d – Readily biodegradable

**Bioaccumulative potential:** Does not bioaccumulate

**Mobility in soil:** No data available.

### Section 13 – Disposal Considerations

**Disposal instructions:** All wastes must be handled in accordance with local, state, and federal regulations.

### Section 14 – Transportation Information

**DOT (US):** Not dangerous goods

#### **IMDG**

UN number: 3082      Class: 9      Packing group: III      EMS-No: F-A, S-F  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
Marine pollutant: Marine pollutant  
Labeling: 9 + Environmentally Hazardous

#### **IATA**

UN number: 3082      Class: 9      Packing group: III  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
Labeling: 9 + Environmentally Hazardous

### Section 15 – Regulatory Information

**SARA Title III:** None of this product's components are subject to the reporting requirements in SARA Title III, Section 302, Section 311, Section 312, or Section 313.

**State regulations:** None of this product's components are listed on the state lists from CA, MA, MN, NJ, PA, or RI.

**WHMIS IDL:** None of this product's components are listed in the WHMIS IDL.

### Section 16 – Other Information

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. Entropy Solutions Inc. shall not be held liable for any damage resulting from handling, or from contact, with the specified product. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.