

## SAFETY DATA SHEET

### PHASE CHANGE MATERIAL -33°C

#### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

##### 1.1 Product identifier

Product name: Phase Change Material -33°C  
Product group: Mixture of inorganic materials

##### 1.2 Relevant identified uses of the substance or mixture

Identified uses: Eutectic cooling/heating agent

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

Supplier: BoTemp BV  
Provinciënbaan 25  
5121 DK Rijen  
The Netherlands  
T +31 85 760 34 10  
E service@botemp.nl

##### 1.4 Emergency telephone number

+31 85 760 34 10.

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#### SECTION 2: HAZARDS IDENTIFICATION

##### 2.1 Classification of the substance or mixture

###### 2.1.1 Classification according to Regulation (EC) no.1272/2008 (CLP)

Acute toxic	Category: 4	<b>H302</b>	Harmful if swallowed
Skin irritation	Category: -	<b>H317</b>	May cause an allergic skin reaction
Eye irritation	Category: 2	<b>H319</b>	Causes serious eye irritation

###### 2.1.2 Classification according to Directive 67/548/EEC or 1999/45/EC

**R21/22** Harmful in contact with skin and if swallowed  
**R36** Irritating to eyes

###### 2.1.3 Adverse physicochemical, human health and environmental effects

No additional information available.

## 2.2 Label elements

### Labelling according to Regulation (EC) No. 1272/2008 (CLP)

Hazard pictograms (CLP)



**GHS07**

Signal word (CLP) : Warning

Hazard Statements : H302 Harmful if swallowed  
H317 May cause an allergic skin reaction  
H319 Causes serious eye irritation

Precautionary Statement: :

P262 Do not get in eyes, on skin or on clothing  
P264 Wash hands thoroughly after handling  
P280 Wear protective gloves, protective clothing, eye protection, face protection.  
P301 + P310 **IF SWALLOWED:** call a doctor if you feel unwell  
P302 + P352 **IF ON SKIN:** wash with plenty of water  
P305 + P338 + P351 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 If eye irritation persists: get medical advice/attention  
P391 Collect spillage

## 2.3 Other hazards

Not classified

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Gel formula consists of water, hydrated salts and a guar gum compound. The full text of all hazard statements is displayed in Section 15.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

**After skin contact** Wash skin thoroughly with mild soap and water  
**After eye contact** Rinse immediately with plenty of water, remove any contact lenses. Get medical attention if any discomfort continues  
**After ingestion** Immediately rinse mouth with plenty of water. Get medical attention immediately.

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

**Ingestion** May cause discomfort if swallowed  
**Skin contact** May cause skin irritation  
**Eye contact** Causes serious eye irritation

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

If in doubt: GET MEDICAL ATTENTION PROMPTLY!

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## SECTION 5: FIREFIGHTING MEASURES

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Release date: 29-11-2017  
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Version: no: 4

## **5.1 Extinguishing media**

**Suitable extinguishing media** Use water spray, alcohol-resistant foam or carbon dioxide

**Extinguishing media which must not be used for safety reasons** Do not use water jet

## **5.2 Special hazards arising from the substance or mixture**

**Specific hazards** By burning possible formation of: Nitrogen oxides (NOx) and Sulphur oxides (SOx)

## **5.3 Advice for firefighters**

**Protective equipment for firefighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire

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## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes. Provide adequate ventilation.

### **6.2 Environmental precautions**

Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

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

Avoid spreading of the gel. Shovel into dry containers. Cover and move the containers. Flush the area with water. Do not contaminate water sources or sewer.

### **6.4 Reference to other sections**

Wear protective clothing as described in Section 8 of this safety data sheet

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## **SECTION 7: HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

Read and follow manufacturer's recommendations. Avoid contact with skin and eyes.

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

Store in tightly closed original container. Avoid any damage that might lead to leakages of the container.

### **7.3 Specific end use(s)**

The identified uses for this product are detailed in Section 1.2

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## **SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES**

### **8.1 information on basic physical and chemical properties**

<b>Appearance</b>	Gel (T>-33°C)	Solid (T<-33°C)
<b>Colour</b>	Yellow	
<b>Odor</b>	Slight gum odor	

<b>Bulk density</b>	1290 kg/m <sup>3</sup>
<b>pH value</b>	~5.5
<b>Melting point</b>	-33°C

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## SECTION 9: STABILITY AND REACTIVITY

### Stability

Stable under normal temperature conditions

### Materials to avoid

Reactions with strong acids

Reactions with reducing agents

### Hazardous decomposition products

Carbon oxides

Sulphur oxides

Nitrogen oxides

Hydrogen chloride

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## SECTION 10: TOXICOLOGICAL INFORMATION

### 10.1 Product information

#### Acute toxicity

**Oral** This product contains a small amount of one or more toxic substances (<0.1%)

**Dermal** No data available

**Inhalation** No data available

#### Irritation

**Skin irritation** May cause mild transient irritation

**Eye irritation** Causes serious irritation if in direct contact with the eye

**Respiratory irritation** Not expected to cause irritation of respiratory system

#### Other effects

**Reproductive effects** None

**Additional information** Our data are not sufficient for total texture judgement.  
Follow the usual hygiene directives for handling with chemicals

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## SECTION 11: ECOLOGICAL INFORMATION

### 11.1 Toxicity

Contains a small amount of 5-chlorine-2-methyl-2H-isothiazol-3-on and 1,2-benzisothiazool-3(2H)-on mixture (<0.02%) which is toxic to aquatic organisms with long lasting effects.

### 11.2 Persistence and degradability

Contains a small amount of substances that may cause long term harmful effects to the environment (<0.1%)

### 11.3 Mobility in soil

Contains components that are soluble in water

### 11.4 Result of PBT and vPvB assessment

No information available

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## **11.6 Other adverse effects**

Avoid spillage into the environment

## **SECTION 12: DISPOSAL CONSIDERATIONS**

### **12.1 Waste treatment methods**

**Waste from unused product or leakages** Dispose of in accordance with the European Directives on waste and hazardous waste. Should not be released into the environment.

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## **SECTION 13: TRANSPORT INFORMATION**

**Road/Rail**            **ADR/RID**

No information required

**Sea**                    **IMDG**

No information required

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## **SECTION 14: REGULATORY INFORMATION**

### **14.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Contains none of the *Substances of very high concern (SVHCs)* listed by REACH

### **14.2 Chemical safety assessment**

Not applicable

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## **SECTION 15: OTHER INFORMATION**

**Full text of R-phrases, H-phrases** (referred to in section 2 and section 3)

<b>R-phrases</b>	
R21	Harmful in contact with skin
R22	Harmful if swallowed
R36	Irritating to eyes

  

<b>H-phrases</b>	
H272	May intensify fire; oxidizer
H301	Toxic if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H330	Fatal if inhaled
H331	Toxic if inhaled
H360	May damage fertility or the unborn child
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long-lasting effects
H411	Toxic to aquatic life with long-lasting effects

## Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process unless specified in the text.