



TheraCem Ca Catalyst

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 08/03/2018

Version: 2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : TheraCem Ca Catalyst

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : For Rx Only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer:

Bisco, Inc. 1100 W Irving Park Road, Schaumburg, IL 60193 USA
1-847-534-6000, during normal business hours
www.bisco.com

EC Representative:

Bisico France, 208, allée de la Coudoulette, 13680 Lançon de Provence, France
Telephone: 33-4-90-42-92-92

1.4. Emergency telephone number

Emergency number : CHEMTREC - 24-Hour Hazmat Emergency Communications Center
Domestic: 1-800-424-9300 Outside the U.S.: 1-703-527-3887, collect calls accepted

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2 H319
Skin sensitisation, Category 1 H317
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning
Hazardous ingredients : 10-Methacryloyloxydecyl Dihydrogen Phosphate; Tert-butyl Peroxybenzoate; 2-Hydroxyethyl Methacrylate; Proprietary
Hazard statements (CLP) : H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
Precautionary statements (CLP) : P261 - Avoid breathing vapours
P264 - Wash hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves, eye protection, face protection
P302+P352 - IF ON SKIN: Wash with plenty of soap and water

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P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a doctor, a POISON CENTER if you feel unwell.
P321 - Specific treatment (see First aid measures on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents and container to a hazardous or special waste collection point, a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste, hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
10-Methacryloyloxydecyl Dihydrogen Phosphate	(CAS-No.) 85590-00-7	10 - 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
2-Hydroxyethyl Methacrylate	(CAS-No.) 868-77-9 (EC-No.) 212-782-2 (EC Index-No.) 607-124-00-X	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Tert-butyl Peroxybenzoate	(CAS-No.) 614-45-9 (EC-No.) 210-382-2	1 - 5	Self-react. D, H242 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400
Proprietary	(CAS-No.) Proprietary (EC-No.) Proprietary (EC Index-No.) Proprietary	< 1	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Proprietary	(CAS-No.) Proprietary (EC-No.) Proprietary (EC Index-No.) Proprietary	(C >= 1) STOT SE 3, H335

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid breathing mist, vapours. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid breathing mist, vapours. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Proprietary (Proprietary)		
EU	IOELV TWA (mg/m ³)	8.4 mg/m ³ (Proprietary; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	2 ppm (Proprietary; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV STEL (mg/m ³)	12.6 mg/m ³ (Proprietary; EU; Short time value; Indicative occupational exposure limit value)
EU	IOELV STEL (ppm)	3 ppm (Proprietary; EU; Short time value; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	4.2 mg/m ³ (Triéthylamine; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	1 ppm (Triéthylamine; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m ³)	12.6 mg/m ³ (Triéthylamine; Belgium; Short time value)
Belgium	Short time value (ppm)	3 ppm (Triéthylamine; Belgium; Short time value)

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Proprietary (Proprietary)		
France	VME (mg/m ³)	4.2 mg/m ³ (Triéthylamine; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	1 ppm (Triéthylamine; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VLE (mg/m ³)	12.6 mg/m ³ (Triéthylamine; France; Short time value; VRC: Valeur réglementaire contraignante)
France	VLE (ppm)	3 ppm (Triéthylamine; France; Short time value; VRC: Valeur réglementaire contraignante)
Netherlands	Grenswaarde TGG 8H (mg/m ³)	4.2 mg/m ³ (Proprietary; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	1 ppm (Proprietary; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	12.6 mg/m ³ (Proprietary; Netherlands; Short time value; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (ppm)	3 ppm (Proprietary; Netherlands; Short time value; Public occupational exposure limit value)
United Kingdom	WEL TWA (mg/m ³)	8 mg/m ³ Proprietary; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	2 ppm Proprietary; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m ³)	17 mg/m ³ Proprietary; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	4 ppm Proprietary; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
USA - ACGIH	Local name	Proprietary
USA - ACGIH	ACGIH TWA (ppm)	0.5 ppm
USA - ACGIH	ACGIH STEL (ppm)	1 ppm
USA - ACGIH	Remark (ACGIH)	URT irr; visual impair; Skin; A4
USA - OSHA	Local name	Proprietary
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	100 mg/m ³
USA - OSHA	OSHA PEL (TWA) (ppm)	25 ppm

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Eye protection:

Protective goggles

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Viscous resin paste.
Colour	: White / Opaque.

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Odour	: Acrylic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: Not applicable
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

10-Methacryloyloxydecyl Dihydrogen Phosphate (85590-00-7)

LD50 oral rat	>	> mg/kg
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Tert-butyl Peroxybenzoate (614-45-9)

LD50 oral rat	> 2000 mg/kg (Rat)
LD50 dermal rat	> 2000 mg/kg (Rat)
LC50 inhalation rat (mg/l)	> 20 mg/l/4h (Rat)

2-Hydroxyethyl Methacrylate (868-77-9)

LD50 oral rat	5564 mg/kg bodyweight (Rat; Experimental value)
LD50 dermal rabbit	> 5000 mg/kg bodyweight (Rabbit; Experimental value)

Proprietary (Proprietary)

LD50 oral rat	> 460 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; 730 mg/kg bodyweight; Rat)
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Proprietary (Proprietary)	
LD50 dermal rabbit	416 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 580 mg/kg bodyweight; Rabbit)
LC50 inhalation rat (mg/l)	> 4.2 mg/l/4h (Rat)
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

10-Methacryloyloxydecyl Dihydrogen Phosphate (85590-00-7)

EC50 Daphnia 1	> mg/l
NOEC chronic fish	48h 10 mg/l

2-Hydroxyethyl Methacrylate (868-77-9)

LC50 fish 1	227 mg/l (LC50; 96 h)
EC50 Daphnia 1	171 mg/l (NOEC; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
EC50 Daphnia 2	380 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 1	836 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)
Threshold limit algae 2	345 mg/l (EbC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)

Proprietary (Proprietary)

EC50 Daphnia 2	17 mg/l (LC50; ASTM; 48 h; Ceriodaphnia dubia; Semi-static system; Fresh water; Experimental value)
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12.2. Persistence and degradability

Tert-butyl Peroxybenzoate (614-45-9)

Persistence and degradability	Readily biodegradable in water.
ThOD	2.14 g O ₂ /g substance

2-Hydroxyethyl Methacrylate (868-77-9)

Persistence and degradability	Readily biodegradable in water. Biodegradability in soil: no data available. Adsorbs into the soil.
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Proprietary (Proprietary)

Persistence and degradability	Readily biodegradable in water. Low potential for adsorption in soil. Photodegradation in the air.
Biochemical oxygen demand (BOD)	< 0.001 g O ₂ /g substance
Chemical oxygen demand (COD)	1.02 g O ₂ /g substance

12.3. Bioaccumulative potential

Tert-butyl Peroxybenzoate (614-45-9)

Bioaccumulative potential	No bioaccumulation data available.
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2-Hydroxyethyl Methacrylate (868-77-9)

BCF fish 1	1.3 - 1.5 (BCF)
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2-Hydroxyethyl Methacrylate (868-77-9)	
Log Pow	-0.55 - 0.49 (0.42; Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Proprietary (Proprietary)	
BCF fish 1	< 0.5 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Fresh water)
Log Pow	1.45 (Experimental value; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

Proprietary (Proprietary)	
Surface tension	0.021 N/m (20 °C)
Log Koc	log Koc,Other; 2.56; Calculated value

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : Not applicable
 UN-No. (IMDG) : Not applicable
 UN-No. (IATA) : Not applicable
 UN-No. (ADN) : Not applicable
 UN-No. (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
 Proper Shipping Name (IMDG) : Not applicable
 Proper Shipping Name (IATA) : Not applicable
 Proper Shipping Name (ADN) : Not applicable
 Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR
 Transport hazard class(es) (ADR) : Not applicable

IMDG
 Transport hazard class(es) (IMDG) : Not applicable

IATA
 Transport hazard class(es) (IATA) : Not applicable

ADN
 Transport hazard class(es) (ADN) : Not applicable

RID
 Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
 Packing group (IMDG) : Not applicable
 Packing group (IATA) : Not applicable
 Packing group (ADN) : Not applicable

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Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

- Inland waterway transport

Not applicable

- Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Revision date :08/01/2018

Full text of H- and EUH-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
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Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Self-react. D	Self-Reactive Substances and Mixtures, Type D
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour
H242	Heating may cause a fire
H302	Harmful if swallowed
H311	Toxic in contact with skin
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
H335	May cause respiratory irritation
H400	Very toxic to aquatic life

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product