TheraCem Base

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision date: 6/8/2023 Supersedes: 7/14/2022 Version: 6.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : TheraCem Base

1.2. Recommended use and restrictions on use

Use of the substance/mixture : For Rx Only

1.3. Supplier

Manufacturer
BISCO, Inc.
1100 W. Irving Park Rd.
Schaumburg, IL , 60193
U.S.A.
T 1-800-247-3368 or 1-847-534-6000
sales@bisco.com - www.bisco.com

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: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2	H319	Causes serious eye irritation
Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Specific target organ toxicity - Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory irritation

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Warning
Hazard statements (GHS US) : H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
Precautionary statements (GHS US) : P261 - Avoid breathing dust, fume, vapors.
P264 - Wash hands thoroughly after handling
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302+P352 - If on skin: Wash with plenty of water and soap
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 poison center/a doctor if you feel unwell
P321 - Specific treatment (see First aid measures on this label)
P332+P313 - If skin irritation 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.
P501 - Dispose in a safe manner in accordance with local/national regulations

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Ytterbium w/ Barium Glass	CAS-No.: NA	30 - 50	Eye Irrit. 2, H319 STOT SE 3, H335
Ethoxylated Bis A Dimethacrylate	CAS-No.: 41637-38-1	10 - 30	Aquatic Chronic 4, H413
Portland Cement	CAS-No.: 65997-15-1	10 - 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335
Ytterbium Fluoride	CAS-No.: 13760-80-0	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Brombenzenesulfinic Acid, Sodium Dihydrate	CAS-No.: 175278-64-5	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
BisGMA	CAS-No.: 1565-94-2	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335
Titanium Dioxide	CAS-No.: 13463-67-7	< 1	Carc. 2, H351
Acetyl-2-Thiourea	CAS-No.: 591-08-2	< 1	Acute Tox. 2 (Oral), H300

Full text of hazard classes and 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/doctor/physician if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician 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/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (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 : May cause eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

5.2. Specific hazards arising from the chemical

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

5.3. Special protective equipment and precautions for fire-fighters

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 dust, fume, vapors. 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 : Avoid breathing dust, fume, vapors. 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 in a well-ventilated place. Keep container tightly closed. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Paste.

Color : Straw

Odor : Acrylic

Odor threshold : No data available

pH : No data available

Melting point : No data available

Freezing point	:	Not applicable
Boiling point	:	No data available
Flash point	:	Not applicable
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Non flammable.
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	Not applicable
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available
Viscosity, kinematic	:	Not applicable
Viscosity, dynamic	:	No data available
Explosion limits	:	Not applicable
Explosive properties	:	No data available
Oxidizing properties	:	No data available

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

Ethoxylated Bis A Dimethacrylate (41637-38-1)	
LD50 oral rat	> 2000 mg/kg Source: ECHA

Ethoxylated Bis A Dimethacrylate (41637-38-1)	
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Read-across, Dermal, 15 day(s))

Acetyl-2-Thiourea (591-08-2)	
LD50 oral rat	50 mg/kg Source: National Library of Medicine/Hazardous Substances Data Bank
ATE US (oral)	50 mg/kg body weight

Ytterbium Fluoride (13760-80-0)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)

Titanium Dioxide (13463-67-7)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LC50 Inhalation - Rat	> 5.09 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))
LC50 Inhalation - Rat (Dust/Mist)	> 6.82 mg/l Source: ECHA

Skin corrosion/irritation : Causes skin irritation.

Portland Cement (65997-15-1)	
pH	11 - 13.5 (20 °C)

Ethoxylated Bis A Dimethacrylate (41637-38-1)	
pH	4.7 (< 0.01 %, 20 °C, OECD 105: Water Solubility)

Acetyl-2-Thiourea (591-08-2)	
pH	6 (17.3 %)

Ytterbium Fluoride (13760-80-0)	
pH	4.53 Temp.: 20 °C

Titanium Dioxide (13463-67-7)	
pH	7 Source: ECHA

Serious eye damage/irritation : Causes serious eye irritation.

Portland Cement (65997-15-1)	
pH	11 - 13.5 (20 °C)

Ethoxylated Bis A Dimethacrylate (41637-38-1)	
pH	4.7 (< 0.01 %, 20 °C, OECD 105: Water Solubility)

Acetyl-2-Thiourea (591-08-2)	
pH	6 (17.3 %)

Ytterbium Fluoride (13760-80-0)	
pH	4.53 Temp.: 20 °C

Titanium Dioxide (13463-67-7)	
pH	7 Source: ECHA

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Brombenzenesulfinic Acid, Sodium Dihydrate (175278-64-5)	
IARC group	4 - Probably not carcinogenic to humans

Ytterbium Fluoride (13760-80-0)	
IARC group	4 - Probably not carcinogenic to humans

Titanium Dioxide (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified
STOT-single exposure : May cause respiratory irritation.

Portland Cement (65997-15-1)	
STOT-single exposure	May cause respiratory irritation.

Brombenzenesulfinic Acid, Sodium Dihydrate (175278-64-5)	
STOT-single exposure	May cause respiratory irritation.

BisGMA (1565-94-2)	
STOT-single exposure	May cause respiratory irritation.

Ytterbium w/ Barium Glass (NA)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : Not applicable

Portland Cement (65997-15-1)	
Viscosity, kinematic	Not applicable (solid)

Ethoxylated Bis A Dimethacrylate (41637-38-1)	
Viscosity, kinematic	No data available in the literature

Titanium Dioxide (13463-67-7)	
Viscosity, kinematic	Not applicable (solid)

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 : May cause eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Portland Cement (65997-15-1)	
LC50 - Fish [1]	> 1000 mg/l (96 h, Pisces)

Ethoxylated Bis A Dimethacrylate (41637-38-1)	
LC50 - Fish [1]	> 100 mg/l Source: ECAH
EC50 72h - Algae [1]	> 100 mg/l Source: ECAH

Acetyl-2-Thiourea (591-08-2)	
LC50 - Fish [1]	3417 mg/l Source: Ecological Structure Activity Relationships

Ytterbium Fluoride (13760-80-0)	
EC50 - Crustacea [1]	> 0.52 mg/l Test organisms (species): Daphnia magna

BisGMA (1565-94-2)	
LC50 - Fish [1]	0.537 mg/l Source: ECOSAR

Titanium Dioxide (13463-67-7)	
LC50 - Fish [1]	> 100 mg/l
EC50 - Crustacea [1]	> 1000 mg/l (Invertebrata, Fresh water)
EC50 72h - Algae [1]	> 50 mg/l Source: ECHA

12.2. Persistence and degradability

Portland Cement (65997-15-1)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
BOD (% of ThOD)	Not applicable

Ethoxylated Bis A Dimethacrylate (41637-38-1)	
Persistence and degradability	Not readily biodegradable in water.

Acetyl-2-Thiourea (591-08-2)	
Persistence and degradability	Biodegradability in water: no data available.

BisGMA (1565-94-2)	
Persistence and degradability	Biodegradability in water: no data available.

Titanium Dioxide (13463-67-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

Portland Cement (65997-15-1)	
Bioaccumulative potential	No bioaccumulation data available.

Ethoxylated Bis A Dimethacrylate (41637-38-1)	
Partition coefficient n-octanol/water (Log Pow)	5.62 (Practical experience/observation, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).

Acetyl-2-Thiourea (591-08-2)	
Partition coefficient n-octanol/water (Log Pow)	-0.27 Source: National Library of Medicine
Bioaccumulative potential	Not bioaccumulative.

Ytterbium Fluoride (13760-80-0)	
Partition coefficient n-octanol/water (Log Pow)	0.22 Source: EPISUITE

BisGMA (1565-94-2)	
Partition coefficient n-octanol/water (Log Pow)	4.94 Source: ChemIDplus
Bioaccumulative potential	No bioaccumulation data available.

Titanium Dioxide (13463-67-7)	
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

Portland Cement (65997-15-1)	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.

Ethoxylated Bis A Dimethacrylate (41637-38-1)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.56 - 3.88 (log Koc, Calculated value)
Ecology - soil	Low potential for mobility in soil.

Acetyl-2-Thiourea (591-08-2)	
Mobility in soil	22 Source: HSDB

Titanium Dioxide (13463-67-7)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

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

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

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

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

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

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

14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
No data available

TDG
No data available

IMDG
No data available

IATA
No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Brombenzenesulfinic Acid, Sodium Dihydrate	CAS-No. 175278-64-5	1 - 5%
Ytterbium w/ Barium Glass	CAS-No. NA	30 - 50%

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Acetyl-2-Thiourea (591-08-2)	
CERCLA RQ	1000 lb

15.2. International regulations

CANADA

Portland Cement (65997-15-1)

Listed on the Canadian DSL (Domestic Substances List)

Ethoxylated Bis A Dimethacrylate (41637-38-1)

Listed on the Canadian DSL (Domestic Substances List)

Brombenzenesulfinic Acid, Sodium Dihydrate (175278-64-5)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

Acetyl-2-Thiourea (591-08-2)

Listed on the Canadian NDSL (Non-Domestic Substances List)

Ytterbium Fluoride (13760-80-0)

Listed on the Canadian NDSL (Non-Domestic Substances List)

BisGMA (1565-94-2)

Listed on the Canadian DSL (Domestic Substances List)

Titanium Dioxide (13463-67-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Portland Cement (65997-15-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Acetyl-2-Thiourea (591-08-2)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Titanium Dioxide (13463-67-7)

Listed on IARC (International Agency for Research on Cancer)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Portland Cement(65997-15-1)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Acetyl-2-Thiourea(591-08-2)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Titanium Dioxide(13463-67-7)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision date : 06/08/2023

Full text of H-phrases	
H300	Fatal if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H413	May cause long lasting harmful effects to aquatic life

Indication of changes:			
Section	**Changed item**	**Change**	**Comments**
	Issue date	Removed	
	Revision date	Added	
	Precautionary statements (GHS US)	Modified	
	Supersedes	Added	
2.1	GHS-US classification	Modified	
3	Composition/Information on ingredients	Modified	
7.1	Precautions for safe handling	Modified	
7.2	Storage conditions	Modified	

Safety Data Sheet (SDS), USA

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.