



Light-Core

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Revision date: 12/16/2024 Supersedes version of: 1/17/2023 Version: 4.0

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

1.1. Product identifier

Product form : Mixture
Product name : Light-Core

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

Relevant identified uses

Use of the substance/mixture : For Rx Only

1.3. Details of the supplier of the safety data sheet

Manufacturer

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

EC REP

BISICO France
208, allée de la Coudoulette
13680 Lançon de Provence
France
T 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]

Acute toxicity (oral), Category 4 H302
Skin sensitisation, Category 1 H317
Full text of H- and EUH-statements: see section 16

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
Contains : Triethylene Glycol Dimethacrylate; BisGMA; Glass Filler
Hazard statements (CLP) : H302 - Harmful if swallowed.
H317 - May cause an allergic skin reaction.
Precautionary statements (CLP) : P261 - Avoid breathing dust, fume, vapours.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves, protective clothing, eye protection.
P301+P312 - IF SWALLOWED: Call a POISON CENTER, doctor if you feel unwell.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

Light-Core

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation, a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Triethylene Glycol Dimethacrylate (109-16-0), Ethoxylated Bis A Dimethacrylate (41637-38-1)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Triethylene Glycol Dimethacrylate (109-16-0), Ethoxylated Bis A Dimethacrylate (41637-38-1)

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Glass Filler	CAS-No.: N/A	30 - 50	Acute Tox. 4 (Oral), H302
BisGMA	CAS-No.: 1565-94-2 EC-No.: 216-367-7	5 - 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335
Fumed Silica	CAS-No.: 68611-44-9 EC-No.: 271-893-4	5 - 10	Not classified
Ethoxylated Bis A Dimethacrylate	CAS-No.: 41637-38-1	1 - 5	Aquatic Chronic 4, H413
Triethylene Glycol Dimethacrylate	CAS-No.: 109-16-0 EC-No.: 203-652-6	1 - 5	Skin Sens. 1B, H317

Full text of H- and EUH-statements: see section 16

Components - Nanoform

Fumed Silica (68611-44-9)	
Name of (set of) nanoform(s)	Fumed Silica
Number based particle size distribution	16 nm
Particle shape	Crystal
Specific surface area	90 - 130 m ² /g

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
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.

Light-Core

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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 skin contact : May cause an allergic skin reaction.
Symptoms/effects after eye contact : May cause eye irritation.

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

For non-emergency personnel

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

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 : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing dust, fume, vapours. Wear personal protective equipment.
Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. 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 cool.

Light-Core

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

Safety glasses

Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls

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
Colour	: Translucent / Blue.
Appearance	: Viscous Paste.
Odour	: Acrylic.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available

Light-Core

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Viscosity, kinematic	: Not applicable
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not applicable
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

See section 3 for more information about nano properties.

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Light-Core	
ATE CLP (oral)	1129.178 mg/kg bodyweight
Triethylene Glycol Dimethacrylate (109-16-0)	
LD50 oral rat	10837 mg/kg Source: NLM, THOMSON
LD50 dermal	> 2000 mg/kg bodyweight (US EPA, 14 day(s), Mouse, Male, Experimental value, Skin, 14 day(s))
Fumed Silica (68611-44-9)	
LD50 oral rat	> 5000 mg/kg (Rat, Literature study, Oral)
Ethoxylated Bis A Dimethacrylate (41637-38-1)	
LD50 oral rat	> 2000 mg/kg Source: ECHA

Light-Core

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Ethoxylated Bis A Dimethacrylate (41637-38-1)	
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Read-across, Dermal, 15 day(s))
Skin corrosion/irritation	: Not classified
Triethylene Glycol Dimethacrylate (109-16-0)	
pH	6.8 - 7.2
Fumed Silica (68611-44-9)	
pH	3.7 - 4.7 (4 %, 20 °C)
Ethoxylated Bis A Dimethacrylate (41637-38-1)	
pH	4.7 (< 0.01 %, 20 °C, OECD 105: Water Solubility)
Serious eye damage/irritation	: Not classified
Triethylene Glycol Dimethacrylate (109-16-0)	
pH	6.8 - 7.2
Fumed Silica (68611-44-9)	
pH	3.7 - 4.7 (4 %, 20 °C)
Ethoxylated Bis A Dimethacrylate (41637-38-1)	
pH	4.7 (< 0.01 %, 20 °C, OECD 105: Water Solubility)
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	: Not classified
BisGMA (1565-94-2)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Triethylene Glycol Dimethacrylate (109-16-0)	
LOAEC (inhalation, rat, gas, 90 days)	350 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Remarks on results: other:
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation, rat, gas, 90 days)	100 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Remarks on results: other:
Aspiration hazard	: Not classified
Light-Core	
Viscosity, kinematic	Not applicable
Fumed Silica (68611-44-9)	
Viscosity, kinematic	Not applicable
Ethoxylated Bis A Dimethacrylate (41637-38-1)	
Viscosity, kinematic	No data available in the literature

11.2. Information on other hazards

No additional information available

Light-Core

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Triethylene Glycol Dimethacrylate (109-16-0)

LC50 - Fish [1]	16.4 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	72.8 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
LOEC (chronic)	100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Fumed Silica (68611-44-9)

LC50 - Fish [1]	> 10000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 10000 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 24 h, Daphnia magna, Experimental value, Nominal concentration)

Ethoxylated Bis A Dimethacrylate (41637-38-1)

LC50 - Fish [1]	> 100 mg/l Source: ECAH
EC50 72h - Algae [1]	> 100 mg/l Source: ECAH

BisGMA (1565-94-2)

LC50 - Fish [1]	0.537 mg/l Source: ECOSAR
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12.2. Persistence and degradability

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Persistence and degradability	Rapidly degradable
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Triethylene Glycol Dimethacrylate (109-16-0)

Persistence and degradability	Readily biodegradable in water.
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Fumed Silica (68611-44-9)

Persistence and degradability	Biodegradability: not applicable.
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Ethoxylated Bis A Dimethacrylate (41637-38-1)

Persistence and degradability	Not readily biodegradable in water.
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BisGMA (1565-94-2)

Persistence and degradability	Biodegradability in water: no data available.
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Glass Filler (N/A)

Persistence and degradability	Rapidly degradable
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Light-Core

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

12.3. Bioaccumulative potential

Triethylene Glycol Dimethacrylate (109-16-0)

Partition coefficient n-octanol/water (Log Pow)	2.3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Fumed Silica (68611-44-9)

Bioaccumulative potential	Not bioaccumulative.
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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).

BisGMA (1565-94-2)

Partition coefficient n-octanol/water (Log Pow)	4.94 (Estimated value)
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

Triethylene Glycol Dimethacrylate (109-16-0)

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.89 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

Fumed Silica (68611-44-9)

Ecology - soil	Low potential for mobility in soil.
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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.

12.5. Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Triethylene Glycol Dimethacrylate (109-16-0), Ethoxylated Bis A Dimethacrylate (41637-38-1)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Triethylene Glycol Dimethacrylate (109-16-0), Ethoxylated Bis A Dimethacrylate (41637-38-1)

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

Light-Core

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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 / IMDG / IATA / ADN / RID

14.1. UN number or ID number

Not regulated for transport

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
Packing group (RID)	: Not applicable

14.5. Environmental hazards

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport
No data available

Transport by sea
No data available

Air transport
No data available

Inland waterway transport
No data available

Light-Core

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Rail transport
No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes		
Section	Changed item	Comments
	Revision date	Modified
	Supersedes version of	Modified
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified
2.2	Hazard statements (CLP)	Modified
2.2	Precautionary statements (CLP)	Modified
3	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified
11.1	ATE CLP (oral)	Added

Light-Core

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 4	Hazardous to the aquatic environment - Chronic Hazard, Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H413	May cause long lasting harmful effects to aquatic life.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT SE 3	Specific target organ toxicity - Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

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.