

Safety Data Sheet 9246

Issue date: 12/12/2024 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product name : BIMAX® 2-CEMA

Product code : 9246
Product form : Substance
Physical state : Liquid
Formula (Override) : C7H9NO2

Synonyms : 2-METHYL-2-PROPENOIC ACID 2-CYANOETHYL ESTER

Chemical family : METHACRYLATE

Chemical name : 2-CYANOETHYL METHACRYLATE

1.2. Recommended use and restrictions on use

Recommended use : Laboratory chemicals

Manufacture of substances

1.3. Supplier

GELEST, INC.

158 Industrial Road Glen Rock, PA 17327

USA

T 717-227-1774 - F 717-227-1775 - (M-F): 8:00 AM - 5:30 PM EST

info@gelest.com - www.gelest.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral), Category 3

Acute toxicity (dermal), Category 3

H301

Toxic if swallowed.

Toxic in contact with skin.

Toxic in contact with skin.

Causes skin irritation.

Serious eye damage/eye irritation, Category 2A

H319

Causes serious eye irritation.

Skin sensitization, Category 1

H317

May cause an allergic skin reaction.

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) : Danger

Hazard statements (GHS US) : H301+H311 - Toxic if swallowed or in contact with skin

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation

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Precautionary statements (GHS US) : P261 - Avoid breathing gas, mist, vapours.

P264 - Wash hands thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P280 - Wear protective gloves, protective clothing, eye and face protection.

P301+P310 - If swallowed: Immediately call a poison center or doctor.

P302+P352 - If on skin: Wash with plenty of water.

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 or doctor if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P330 - Rinse mouth.

P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.

P337+P313 - If eye irritation persists: Get medical advice or attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P405 - Store locked up.

P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Hazards not otherwise classified (HNOC)

Other hazards which do not result in classification : Hazardous polymerization may occur if exposed to high temperature.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name : BIMAX® 2-CEMA CAS-No. 4513-53-5

Name	Product identifier	%	GHS US classification
2-cyanoethyl methacrylate	CAS-No.: 4513-53-5	≥ 92	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Hydroquinone monomethyl ether	CAS-No.: 150-76-5	≤ 0.1	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general

First-aid measures after inhalation

Call a physician immediately.

Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact

Remove/take off immediately all contaminated clothing. Wash skin with plenty of water. 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

: Rinse mouth. Call a physician immediately.

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4.2. Most important symptoms and effects (acute and delayed)

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

Symptoms/effects after eye contact : 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. Alcohol-resistant foam. Dry chemical. Carbon dioxide. Unsuitable extinguishing media : Avoid the use of streaming water, as this may spread the fire.

5.2. Specific hazards arising from the chemical

Fire hazard : No fire hazard.

Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper

protective equipment, including respiratory protection.

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

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing. Avoid breathing gas, vapors,

mist.

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".

Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

Methods for cleaning up

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or

streams. Stop leak, if possible without risk.

Take up liquid spill into absorbent material.

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. Do not get in eyes, on skin, or on clothing. Wear

personal protective equipment. Avoid breathing mist, vapors, gas.

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Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product. Contaminated work clothing should not be allowed out of the workplace. Wash

contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Keep container tightly closed in a dry and well-ventilated place away from heat

sources.

Incompatible materials : Oxidizing agents.

Storage temperature : < 32 °C (Recommended)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

USA - ACGIH - Occupational Exposure Limits		
Local name	4-Methoxyphenol	
ACGIH OEL TWA	5 mg/m³	
Remark (ACGIH)	TLV® Basis: Eye irr; skin dam	
Regulatory reference	ACGIH 2024	
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL (TWA)	5 mg/m³	

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

Personal protective equipment:

Wear recommended 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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Clear liquid.
Molecular mass : 139.15 g/mol

Color

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Boiling point 95 - 97 °C at 2 Torr Flash point No data available Auto-ignition temperature No data available Decomposition temperature : No data available Flammability (solid, gas) : Not applicable. Vapor pressure : No data available Relative vapor density at 20°C : No data available Relative density : No data available Density : 1.0498 g/cm3 at 20 °C Solubility No data available Partition coefficient n-octanol/water (Log Pow) No data available Partition coefficient n-octanol/water (Log Kow) No data available Viscosity, kinematic No data available Viscosity, dynamic No data available : No data available Explosive properties : No data available Oxidizing properties **Explosion limits** : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Polymerization can occur at elevated temperatures. Contains the following stabilizer(s): MEHQ.

10.3. Possibility of hazardous reactions

Hazardous polymerization may occur.

10.4. Conditions to avoid

Heat and light.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

No data available. In the event of fire: see section 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Toxic if swallowed.

Acute toxicity (dermal) : Toxic in contact with skin.

Acute toxicity (inhalation) : Not classified

Hydroquinone monomethyl ether (150-76-5)		
LD50 oral rat	1600 mg/kg	
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: other:	
LD50 dermal rabbit	> 2000 mg/kg	

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Skin corrosion/irritation : Causes skin irritation. Serious eye damage/irritation Causes serious eye irritation. Respiratory or skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity Not classified Carcinogenicity Not classified Reproductive toxicity Not classified STOT-single exposure Not classified STOT-repeated exposure : Not classified

Hydroquinone monomethyl ether	(150-76-5)
LOAEL (oral,rat,90 days)	300 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:
NOAEL (oral,rat,90 days)	150 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:
Aspiration hazard	: Not classified

Potential Adverse human health effects and : To the best of our knowledge, the chemical, physical, and toxicological properties have not been

symptoms thoroughly investigated.

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

Symptoms/effects after eye contact : 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.

Hydroquinone monomethyl ether (150-76-5)		
LC50 - Fish [1]	84.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])	
EC50 - Crustacea [1]	3 mg/l Test organisms (species): Daphnia magna	
LC50 - Fish [2]	28.5 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])	
EC50 72h - Algae [1]	54.7 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)	
EC50 72h - Algae [2]	19 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)	
ErC50 algae	54.7 mg/l Source: EHCA	
LOEC (chronic)	1.45 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
NOEC (chronic)	0.68 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Hydroquinone monomethyl ether (150-76-5)	
Partition coefficient n-octanol/water (Log Pow)	1.34

12.4. Mobility in soil

No additional information available

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12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional waste regulation : Disposal must be done according to official regulations.

Sewage disposal recommendations : Do not dispose of waste into sewer.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG		IMDG		IATA	
14.1. UN number						
UN3276	UN3276		3276		3276	
14.2. Proper Shipping Name						
Nitriles, liquid, toxic, n.o.s. (2- Cyanoethyl methacrylate) NITRILES, TOXIC, LIQUID (2-CYANOETHYL METHACRYLATE)		_	NITRILES, LIQUID, TOXIC, N.O.S. (2-CYANOETHYL METHACRYLATE)		Nitriles, liquid, toxic, n.o.s. (2- Cyanoethyl methacrylate)	
Transport document description						
UN3276 Nitriles, liquid, toxic, n.o.s. (2-Cyanoethyl methacrylate), 6.1, III	UN3276 NITRILES, TO LIQUID, N.O.S. (2-CYAN METHACRYLATE), 6	OETHYL	TOXIC, N.C	NITRILES, LIQUID, D.S. (2-CYANOETHYL CRYLATE), 6.1, III	UN 3276 Nitriles, liquid, toxic, n.o.s. (2-Cyanoethyl methacrylate), 6.1, III	
14.3. Transport hazard class(es	s)					
6.1	6.1			6.1	6.1	
POISON 6			<	6	6	
14.4. Packing group						
III	III			III	III	
14.5. Environmental hazards						
Dangerous for the environment: No Dangerous for the envi		ment: No	nt: No Dangerous for the environment: No Marine pollutant: No		Dangerous for the environment: No	
No supplementary information availab	l ole					

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN3276

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DOT Special Provisions (49 CFR 172.102)

: IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP

DOT Packaging Exceptions (49 CFR 173.xxx) : 153
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Quantity Limitations Passenger aircraft/rail (49 : 60 L

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 220 L

CFR 175.75)

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel.

DOT Vessel Stowage Other : 52 - Stow "separated from" acids

TDG

UN-No. (TDG) : UN3276

TDG Special Provisions

16 - 1) The technical name of the most dangerous substance related to the primary class must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(i)(A) of Part 3, Documentation. The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4, Dangerous Goods Safety Marks. 2) subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical: a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the "Food and Drugs Act".

Explosive Limit and Limited Quantity Index : 5 L
Excepted quantities (TDG) : E1
Passenger Carrying Road Vehicle or Passenger : 60 L

Carrying Railway Vehicle Index

Tank special provisions (IMDG)

Emergency Response Guide (ERG) Number : 151

IMDG

Special provision (IMDG): 223, 274Limited quantities (IMDG): 5 LExcepted quantities (IMDG): E1Packing instructions (IMDG): P001, LP01IBC packing instructions (IMDG): IBC03Tank instructions (IMDG): T7

EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE EmS-No. (Spillage) : S-A - SPILLAGE SCHEDULE Alfa - TOXIC SUBSTANCES

TP1, TP28

Stowage category (IMDG) : A Segregation (IMDG) : SG35

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Properties and observations (IMDG) : Liquids, evolving toxic vapour. React with acids or acid fumes, evolving hydrogen cyanide, a

highly toxic and flammable gas. Miscible with water. Toxic if swallowed, by skin contact or by

inhalation.

IATA

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y642
PCA limited quantity max net quantity (IATA) : 2L
PCA packing instructions (IATA) : 655
PCA max net quantity (IATA) : 60L
CAO packing instructions (IATA) : 663
CAO max net quantity (IATA) : 220L

Special provision (IATA) : A3, A4, A137

ERG code (IATA) : 6L

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

BIMAX® 2-CEMA (4513-53-5)	
TSCA Exemptions	CAUTION: This material is supplied for research and development purposes subject to the RD
	exemption under TSCA, 40 CFR 720.36, and must meet the requirements of the exemption,
	including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee).
	The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not
	permitted in the United States.

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Hydroquinone monomethyl ether	150-76-5	Present	Active	Т
2-cyanoethyl methacrylate	4513-53-5	Exempted	-	

15.2. International regulations

CANADA

Hydroquinone monomethyl ether (150-76-5)

Listed on the Canadian DSL (Domestic Substances List)

2-cyanoethyl methacrylate (4513-53-5)

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

EU-Regulations

Hydroquinone monomethyl ether (150-76-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

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National regulations

Hydroquinone monomethyl ether (150-76-5)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on CICR (Turkish Inventory and Control of Chemicals)

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

Hydroquinone monomethyl ether (150-76-5)

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases::

H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation

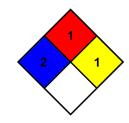
Abbreviations and acronyms

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemcial Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

NFPA health hazard

NFPA fire hazard NFPA reactivity

- 2 Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
- : 1 Materials that must be preheated before ignition can occur.
- 1 Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



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SDS US (GHS HazCom 2012) - Custom

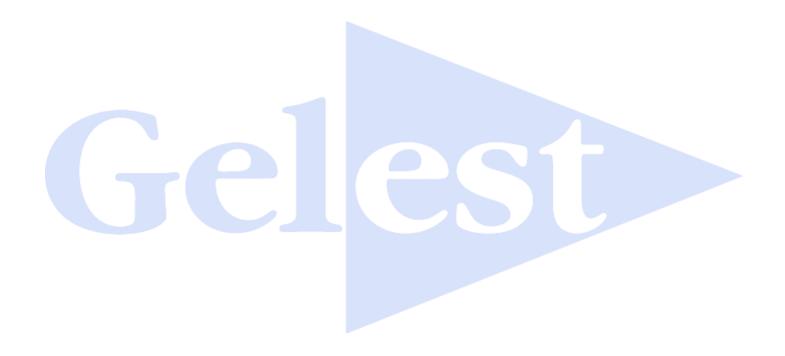
 $According \ to \ Federal \ Register \ / \ Vol. \ 77, \ No. \ 58 \ / \ Monday, \ March \ 26, \ 2012 \ / \ Rules \ and \ Regulations$

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