



A MITSUBISHI CHEMICAL GROUP company

BIMAX® TBAEMA**Safety Data Sheet 9190**

Issue date: 11/06/2023

Version: 1.0

SECTION 1: Identification**1.1. Identification**

Product name	: BIMAX® TBAEMA
Product code	: 9190
Product form	: Substance
Physical state	: Liquid
Formula	: C10H19NO2
Synonyms	: 2-PROPENOIC ACID, 2-METHYL-, 2-[(1,1-DIMETHYLETHYL)AMINO]ETHYL ESTER METHACRYLIC ACID, 2-(TERT-BUTYLAMINO)ETHYL ESTER
Chemical family	: METHACRYLATE
Chemical name	: t-BUTYLAMINOETHYL METHACRYLATE

1.2. Recommended use and restrictions on use

Recommended use	: Laboratory chemicals Manufacture of substances
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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)
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SECTION 2: Hazard(s) identification**2.1. Classification of the substance or mixture****GHS US classification**

Acute toxicity (oral) Category 4	H302	Harmful if swallowed
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
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)

: H302 - Harmful if swallowed
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H319 - Causes serious eye irritation

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Precautionary statements (GHS US) : P280 - Wear protective clothing, eye protection, face protection, protective gloves.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
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.
P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse skin with water/shower
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P305+P351+P338 - 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.
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.
P310 - Immediately call a POISON CENTER, a doctor.
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P321 - Specific treatment (see Section 4 on this label).
P405 - Store locked up.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Hazards not otherwise classified (HNOC)

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name : BIMAX® TBAEMA
CAS-No. : 3775-90-4

Name	Product identifier	%	GHS US classification
t-Butylaminoethyl methacrylate	CAS-No.: 3775-90-4	98 – 100	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
2-(1,1-Dimethylethyl)aminoethanol	CAS-No.: 4620-70-6	0 – 2	Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314

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 : 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.
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 : Rinse mouth. Do not induce vomiting. Consult a physician.

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. Dry powder. Foam. 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	: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.
Reactivity	: No dangerous reactions known under normal conditions of use.

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.
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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 contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.
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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".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: 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. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapors/spray.
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.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in sealed containers under nitrogen. Protect from heat and direct sunlight. Keep container tightly closed in a dry and well-ventilated place. Store locked up.
Incompatible materials	: Oxidizing agents. Bases. Reducing agents. Peroxides. Free radical initiators. Strong acids.
Storage temperature	: < 25 °C (Recommended)

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:

Chemical goggles or 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.
Molecular mass	: 185.25 g/mol Source: National Library of Medicine
Color	: Colorless.
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 100 – 105 °C at 12mmHg Source: National Library of Medicine
Flash point	: 96.1 °C Source: National Library of Medicine
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 0.0449 hPa Temp.: 20 °C
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 0.914 g/cm³ at 25°C
Solubility	: Water: 1.8 g/100ml
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
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

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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

Stable under normal temperatures and pressures. Contains the following stabilizer(s): MEHQ.

10.3. Possibility of hazardous reactions

Hazardous polymerization may occur at elevated temperatures.

10.4. Conditions to avoid

Heat. Light.

10.5. Incompatible materials

Oxidizing agents. Strong acids. Bases. Reducing agents. Peroxides. Free radical initiators.

10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. In the event of fire: see section 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

BIMAX® TBAEMA (3775-90-4)

LD50 intraperitoneal guinea pig	≥ mg/kg
ATE US (oral)	1550 mg/kg body weight
ATE US (dermal)	3000 mg/kg body weight

t-Butylaminoethyl methacrylate (3775-90-4)

LD50 oral rat	1550 mg/kg Source: Alcolac
LD50 dermal rabbit	3000 mg/kg

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
None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

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t-Butylaminoethyl methacrylate (3775-90-4)

NOAEL (oral,rat,90 days)	200 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
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Aspiration hazard	: Not classified
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.
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t-Butylaminoethyl methacrylate (3775-90-4)

LC50 - Fish [1]	> 500 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	> 64.8 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 73.3 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	6.306 mg/l Source: Ecological Structure Activity Relationships

2-(1,1-Dimethylethyl)aminoethanol (4620-70-6)

LC50 - Fish [1]	243.733 mg/l Source: EPISUITE
EC50 - Crustacea [1]	17.005 mg/l Source: EPISUITE
EC50 96h - Algae [1]	4.087 mg/l Source: EPISUITE

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

t-Butylaminoethyl methacrylate (3775-90-4)

Partition coefficient n-octanol/water (Log Pow)	2.12 Source: Ecological Structure Activity Relationships
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2-(1,1-Dimethylethyl)aminoethanol (4620-70-6)

Partition coefficient n-octanol/water (Log Pow)	0.41 Source: NLM;chemIDplus
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12.4. Mobility in soil

t-Butylaminoethyl methacrylate (3775-90-4)

Mobility in soil	146.1 Source: Quantitative Structure Activity Relation
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2-(1,1-Dimethylethyl)aminoethanol (4620-70-6)

Mobility in soil	4.976 Source: EPISUITE
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12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Sewage disposal recommendations	: Do not dispose of waste into sewer.
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Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. Proper Shipping Name			
Not applicable	Not applicable	Not applicable	Not applicable
Transport document description			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
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

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
t-Butylaminoethyl methacrylate	3775-90-4	Present	Active	
2-(1,1-Dimethylethyl)aminoethanol	4620-70-6	Present	Active	

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15.2. International regulations

CANADA

BIMAX® TBAEMA (3775-90-4)

Listed on the Canadian DSL (Domestic Substances List)

t-Butylaminoethyl methacrylate (3775-90-4)

Listed on the Canadian DSL (Domestic Substances List)

2-(1,1-Dimethylethyl)aminoethanol (4620-70-6)

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

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

BIMAX® TBAEMA (3775-90-4)

State or local regulations

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

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

t-Butylaminoethyl methacrylate (3775-90-4)

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::

H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation

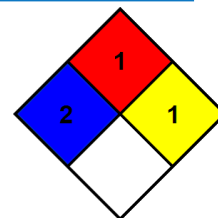
Abbreviations and acronyms

: 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.: Chemical 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.

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NFPA health hazard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard	: 1 - Materials that must be preheated before ignition can occur.
NFPA reactivity	: 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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