

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 7/10/2025 Revision date: 7/18/2025 Supersedes version of: 7/10/2025 Version: 1.1

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

#### 1.1. Product identifier

Product form : Substance Substance name : BIMAX® DMA

Chemical name : N,N-DIMETHYLACRYLAMIDE

 EC-No.
 : 220-237-5

 CAS-No.
 : 2680-03-7

 Product code
 : 9029D

 Formula (Override)
 : C5H9NO

Synonyms : N,N-DIMETHYLPROP-2-ENAMIDE

Product group : Trade product

#### 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 : Laboratory chemicals

Manufacture of substances

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

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

GELEST, INC. 158 Industrial Road 17327 Glen Rock, PA

USA

CS-Gelest@m-chem.com, www.gelest.com

# 1.4. Emergency telephone number

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

# **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 3 H301
Acute toxicity (dermal), Category 3 H311
Acute toxicity (inhalation:dust,mist) Category 2 H330
Serious eye damage/eye irritation, Category 1 H318
Skin sensitisation, Category 1 H317

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

#### Adverse physicochemical, human health and environmental effects

Fatal if inhaled. Toxic in contact with skin. Toxic if swallowed. May cause an allergic skin reaction. Causes serious eye damage.

# 2.2. Label elements

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

Hazard pictograms (CLP)





GHS05

GHS06

Signal word (CLP) : Danger

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

H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage.

H330 - Fatal if inhaled.

Precautionary statements (CLP) : P260 - Do not breathe fume, mist, spray, vapours.

P284 - Wear respiratory protection.

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. P310 - Immediately call a POISON CENTER or doctor.

P405 - Store locked up.

#### 2.3. Other hazards

Other hazards which do not result in classification : Hazardous polymerization may occur.

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

# **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

 Name
 : BIMAX® DMA

 CAS-No.
 : 2680-03-7

 EC-No.
 : 220-237-5

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
N,N-Dimethylacrylamide	CAS-No.: 2680-03-7	≥ 99.5	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 Eye Dam. 1, H318 Skin Sens. 1, H317	

Full text of H- and EUH-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 physician immediately.

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

immediately.

First-aid measures after skin contact : Wash skin with plenty of water. Remove/take off immediately all 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. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Call a physician immediately.

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

Symptoms/effects after inhalation : Fatal if inhaled.

Symptoms/effects after skin contact : Toxic in contact with skin. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes. Symptoms/effects after ingestion : Toxic if swallowed.

Chronic symptoms : Sensitization to this material has been observed with repeated use.

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

Treat symptomatically.

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### **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam. Dry powder. Carbon dioxide.

Unsuitable extinguishing media : Avoid the use of streaming water, as this may spread the fire.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.
Explosion hazard : No direct explosion hazard.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Combustion products may include the following: carbon

oxides (CO, CO2) (carbon monoxide, carbon dioxide) nitrogen oxides (NO, NO2 etc.).

#### 5.3. Advice for firefighters

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

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Do not breathe fume, mist, spray, vapours. Only qualified personnel equipped with suitable

protective equipment may intervene.

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.

# 6.2. Environmental precautions

Avoid release to the environment.

#### 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.

Methods for cleaning up : Take up liquid spill into absorbent material.

#### 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 : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Use only outdoors or in a well-ventilated

area. Do not breathe fume, mist, spray, vapours. Do not get in eyes, on skin, or on clothing.

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 : Keep container tightly closed in a dry and well-ventilated place away from heat sources.

Store locked up.

Incompatible materials : Oxidizing agents. Free radical intiators. Acids.

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Storage temperature : < 32 °C

#### 7.3. Specific end use(s)

No additional information available

### **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

### Appropriate engineering controls:

Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment

# Personal protective equipment:

Wear recommended personal protective equipment.

#### 8.2.2.1. Eye and face protection

#### Eye protection:

Chemical goggles

### 8.2.2.2. Skin protection

#### Skin and body protection:

Wear suitable protective clothing

#### Hand protection:

Protective gloves

#### 8.2.2.3. Respiratory protection

#### Respiratory protection:

Wear respiratory protection.

## 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. 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 : Liquid Colour : Colorless.

Appearance : Clear, colorless Liquid.

Molecular mass : 99.13 g/mol Odour : Not available

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Odour threshold : Not available

Melting point : -40 °C

Freezing point : Not available

Boiling point :  $80 - 81 \, ^{\circ}\text{C}$  @ 20 mmHg

Flammability : Not applicable
Explosive limits : Not available
Lower explosion limit : Not available
Upper explosion limit : Not available
Flash point : 70 °C (closed cup)

Auto-ignition temperature : 352 °C

Decomposition temperature : Not available

pH : 7 - 10 at 200g/L

Viscosity, kinematic : 1.24 mm²/s at 20 °C

Viscosity, dynamic : 1.19 mPa·s at 20 °C

Solubility : Water: 1000 g/l @ 20 °C

Partition coefficient n-octanol/water (Log Kow) : Not available
Partition coefficient n-octanol/water (Log Pow) : -0.3 @ 23 °C
Vapour pressure : 0.49 mm Hg @ 20 °C
Vapour pressure at 50°C : Not available
Density : Not available
Relative density : 0.962 @ 25 °C
Relative vapour density at 20°C : Not available

#### N,N-Dimethylacrylamide

Particle characteristics

Particle size Not applicable

: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

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 can occur, particularly at elevated temperatures, or upon loss of the inhibitor and may result in the release of hazardous decomposition products and vapors.

### 10.4. Conditions to avoid

Heat. Light. flames. Sparks.

### 10.5. Incompatible materials

Oxidizing agents. Acids. Free radical intiators.

### 10.6. Hazardous decomposition products

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

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# **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Toxic if swallowed.

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

Acute toxicity (inhalation) : Inhalation:dust,mist: Fatal if inhaled.

N,N-Dimethylacrylamide (2680-03-7)	
LD50 oral rat	316 mg/kg Source: TOMES
LD50 dermal rabbit	519 mg/kg
Skin corrosion/irritation	: Not classified
	pH: 7 – 10 at 200g/L

Serious eye damage/irritation : Causes serious eye damage.

pH: 7 – 10 at 200g/L

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
STOT-repeated exposure : Not classified.

N,N-Dimethylacrylamide (2680-03-7)	
LOAEL (dermal, rat/rabbit, 90 days)	75 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
NOAEL (oral, rat, 90 days)	5 mg/kg bodyweight Animal: rat, Guideline: other:, Guideline: other:
NOAEL (dermal, rat/rabbit, 90 days)	10 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

Aspiration hazard : Not classified

BIMAX® DMA (2680-03-7)	
Viscosity, kinematic	1.24 mm²/s at 20 °C

#### 11.2. Information on other hazards

No additional information available

# **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

: Not classified

(chronic)

N,N-Dimethylacrylamide (2680-03-7)		
LC50 - Fish [1]	9537.858 mg/l Source: ECOSAR	
EC50 - Crustacea [1]	> 120 mg/l Test organisms (species): Daphnia magna	
EC50 72h - Algae [1]	> 400 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
ErC50 algae	> 400 mg/l (green algae)	
ErC50 other aquatic plants	> 1000 mg/l Bacteria	

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### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

# **BIMAX® DMA (2680-03-7)**

Partition coefficient n-octanol/water (Log Pow) -0.3 @ 23 °C

### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

#### 12.7. Other adverse effects

No additional information available

### **SECTION 13: Disposal considerations**

### 13.1. Waste treatment 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 ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID	
ADIN	iiii 50	IAIA	ADIT	, in	
14.1. UN number or ID n	umber				
UN 2810	UN 2810	UN 2810	UN 2810	UN 2810	
14.2. UN proper shippin	g name				
TOXIC LIQUID, ORGANIC, N.O.S.	TOXIC LIQUID, ORGANIC, N.O.S.	Toxic liquid, organic, n.o.s.	TOXIC LIQUID, ORGANIC, N.O.S.	TOXIC LIQUID, ORGANIC, N.O.S.	
Transport document descr	iption				
UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (N,N- DIMETHYLACRYLAMIDE), 6.1, II, (D/E)	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (N,N- DIMETHYLACRYLAMIDE), 6.1, II	UN 2810 Toxic liquid, organic, n.o.s. (N,N- Dimethylacrylamide), 6.1, II	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (N,N- DIMETHYLACRYLAMIDE), 6.1, II	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (N,N- DIMETHYLACRYLAMIDE), 6.1, II	
14.3. Transport hazard o	14.3. Transport hazard class(es)				
6.1	6.1	6.1	6.1	6.1	
6	6	6	6	6	
14.4. Packing group					
II	II	II	II	II	

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ADR	IMDG	IATA	ADN	RID
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

#### 14.6. Special precautions for user

Overland transport

Classification code (ADR) : T1 Special provisions (ADR) 274, 614 Limited quantities (ADR) 100ml Excepted quantities (ADR) E4 : P001, IBC02 Packing instructions (ADR) Mixed packing provisions (ADR) : MP15 Portable tank and bulk container instructions (ADR) : T11 Portable tank and bulk container special provisions : TP2, TP27

(ADR)

Tank code (ADR) : L4BH Tank special provisions (ADR) : TU15, TE19 Vehicle for tank carriage : AT Transport category (ADR) 2 : CV13, CV28

Special provisions for carriage - Loading, unloading

and handling (ADR)

Special provisions for carriage - Operation (ADR) : S9, S19 Hazard identification number (Kemler No.) 60 :

Orange plates

60 **2810** 

Tunnel restriction code (ADR) : D/E

Transport by sea

: 274 Special provisions (IMDG) Limited quantities (IMDG) 100 ml Excepted quantities (IMDG) E4 Packing instructions (IMDG) P001 IBC packing instructions (IMDG) : IBC02 Tank instructions (IMDG) T11

TP2, TP13, TP27 Tank special provisions (IMDG)

EmS-No. (Fire) : F-A : S-A EmS-No. (Spillage) Stowage category (IMDG) : B Stowage and handling (IMDG) : SW2

Properties and observations (IMDG) : Toxic if swallowed, by skin contact or by inhalation.

Air transport

PCA Excepted quantities (IATA) : E4 PCA Limited quantities (IATA) Y641 PCA limited quantity max net quantity (IATA) 1L PCA packing instructions (IATA) 654 PCA max net quantity (IATA) 5L CAO packing instructions (IATA) 662 CAO max net quantity (IATA) 60L

Special provisions (IATA) : A3, A4, A137

ERG code (IATA) 6L

Inland waterway transport

Classification code (ADN) : T1

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Special provisions (ADN) : 274, 614, 802
Limited quantities (ADN) : 100 ml
Excepted quantities (ADN) : E4
Carriage permitted (ADN) : T

Equipment required (ADN) : PP, EP, TOX, A

Ventilation (ADN) : VE02 Number of blue cones/lights (ADN) : 2

#### Rail transport

Classification code (RID) : T1 : 274.614 Special provisions (RID) : 100ml Limited quantities (RID) : E4 Excepted quantities (RID) Packing instructions (RID) : P001, IBC02 Mixed packing provisions (RID) : MP15 Portable tank and bulk container instructions (RID) : T11 Portable tank and bulk container special provisions : TP2, TP27

(RID)

Tank codes for RID tanks (RID) : L4BH
Special provisions for RID tanks (RID) : TU15
Transport category (RID) : 2

Special provisions for carriage - Loading, unloading : CW13, CW28, CW31

and handling (RID)

Colis express (express parcels) (RID) : CE5
Hazard identification number (RID) : 60

### 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

### 15.1.1. EU-Regulations

### **REACH Annex XVII (Restriction List)**

Not listed on REACH Annex XVII

#### **REACH Annex XIV (Authorisation List)**

Not 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)**

Not listed on the PIC list (Regulation EU 649/2012)

# **POP Regulation (Persistent Organic Pollutants)**

Not listed on the POP list (Regulation EU 2019/1021)

#### Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

### **Explosives Precursors Regulation (EU 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 (EC 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)

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# 15.1.2. National regulations

#### Germany

Air Quality Control (TA Luft)					
Category	Class	Applicable on	Local name	Max. mass flow	Max. mass concentration

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

#### **SECTION 16: Other information**

# **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

Full text of H- and EUH-statements:		
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2	
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
Skin Sens. 1	Skin sensitisation, Category 1	
H301	Toxic if swallowed.	
H311	Toxic in contact with skin.	
H317	May cause an allergic skin reaction.	
H318	Causes serious eye damage.	
H330	Fatal if inhaled.	

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