

This safety data sheet was created pursuant to the requirements of: GHS: The Globally Harmonized System of Classification and Labeling of Chemicals

MAMUT Revision Number 1 Revision date 31-Mar-2022 Supersedes Date: 31-Mar-2022

## 1. Identification

Product identifierMAMUTProduct NameMAMUTPure substance/mixtureMixture

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

Responsible Party Bostik (Shanghai) Management Co., Lt Building 1, No.968 Guanghua Road, Minhang District Shanghai, China Tel: 021-60763101 Fax: 021-60763133 See section 16 for more information.	Poligone Industrial Can Jardi 08191 Rubi (Barcelona), Spain Tel: +34 93 586 02 00 Fax: +34 93 586 02 01		
E-mail address	SDS.AP@Bostik.com		
	0532-8388 9090 (China only) Chemtrec (Transport/Environmental): 1-800-424-9300 1-703-527-3887 (Outside U.S.)		
Recommended use of the chemical a			
	Adhesives and/or sealants		
Restrictions on use	lo information available		

## 2. Hazard(s) identification

#### Classification of the substance or mixture

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

#### Label elements

#### Hazard statements

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

#### Prevention

P264 - Wash hands thoroughly after handling

P281 - Use personal protective equipment as required

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed **Disposal** 

P501 - Dispose of contents/containers in accordance with local regulations

#### Other hazards

No information available.

### 3. Composition/information on ingredients

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#### **Substance**

Not applicable.

#### <u>Mixture</u>

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS).

Chemical name	CAS No	Weight-%
Trimethoxyvinylsilane	2768-02-7	1 - <5
N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3	0.1 - <1
N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine	3069-29-2	0.1 - <1

\*\*\* Any remaining ingredients are not hazardous

4. First-aid measures	

Description of necessary first aid measures			
General advice	Show this safety data sheet to the doctor in attendance. If medical advice is needed, have product container or label at hand.		
Inhalation	Remove to fresh air. If symptoms persist, call a physician.		
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.		
Skin contact	Wash skin with soap and water.		
Ingestion	Call a physician immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Small amounts of toxic methanol are released by hydrolysis.		
Most important symptoms/effects	<b>_</b>		
<u>acute and delayed</u> Symptoms	None known.		
For emergency responders Self-protection of the first aider	No information available.		
Note to physicians	Treat symptomatically. Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.		

## 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.
Unsuitable extinguishing media	Full water jet.
Specific hazards arising from the chemical	Thermal decomposition can lead to release of irritating gases and vapors.
Hazardous combustion products	Carbon oxides. Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx). Silicon dioxide.
Special protective actions for fire-fighters Wear self contained breathing appar	atus for fire fighting if necessary.

Wear self contained breathing apparatus for fire fighting if necessary.

#### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Personal precautions	Use personal protective equipment as required. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.
For emergency responders	Use personal protection recommended in Section 8.
Environmental precautions	Prevent product from entering drains. Do not allow to enter into soil/subsoil. See Section 12 for additional Ecological Information.

#### Methods and material for

containment and cleaning up

Do not scatter spilled material with high pressure water streams. Do not scatter spilled material with high pressure water streams.

Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

#### 7. Handling and storage

#### Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. See Section 8 for information on appropriate personal protective equipment

#### Conditions for safe storage,

#### including any incompatibilities

Protect from moisture. Keep away from food, drink and animal feeding stuffs. Keep at temperatures between 50 and 95 °F / 10 and 35 °C.

### 8. Exposure controls/personal protection

#### **Occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Note See section 16 for terms and abbreviations

#### **Biological occupational exposure limits**

No data available

#### Monitoring and observation processes

No applicable information was found.

Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, s	uch as personal protective equipment
Eye/face protection Skin and body protection Respiratory protection	No special protective equipment required. No special protective equipment required. No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

#### 9. Physical and chemical properties

Information on basic physical and chemical properties

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Appearance Color	Paste White	
Physical state	Solid	
Odor	Characteristic	
Odor threshold	No information available	
Property_	Values_	Remarks • Method
pH		
pH (as aqueous solution)	No data available	
Melting point / freezing point	No data available	
Initial boiling point and boiling	No data available	
range		
Flash point	> 60 °C	
Evaporation rate	No data available	
Flammability	Not applicable for liquids .	
Flammability Limit in Air		
Upper flammability or explosive	No data available	
limits		
Lower flammability or explosive	No data available	
limits		
Vapor pressure	No data available	
Relative vapor density	No data available	
Relative density	No data available	
Water solubility	Product cures with moisture	
Solubility(ies)	No data available	
Partition coefficient	No data available	
Autoignition temperature	No data available	
Decomposition temperature Kinematic viscosity	No data available <ul> <li>21 mm<sup>2</sup>/s</li> </ul>	@ 40°C
Dynamic viscosity	No data available	@ 40 C
Dynamic viscosity	NO Gala available	
Additional information		
Oxidizing properties	No information available	
Solid content (%)	No information available	
Density	1.54 g/cm <sup>3</sup>	

## 10. Stability and reactivity

<b>Reactivity</b>	Product cures with moisture.		
<u>Stability</u>	Stable under normal conditions.		
Sensitivity to mechanical	None.		
impact Sensitivity to static discharge	None.		
Possibility of hazardous reactions	<u>s</u> None under normal processing.		
Conditions to avoid	Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition.		
Incompatible materials	None known based on information supplied.		
Hazardous decomposition products	Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.		

11. Toxicological information			
Inhalation	Based on available data, the classification criteria are not met.		
Eye contact	Based on available data, the classification criteria are not met.		

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Skin contact	Based on available data, the classification criteria are not met.
Ingestion	Based on available data, the classification criteria are not met.
Acute toxicity	

Numerical measures of toxicity

#### The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (inhalation-vapor) 435.30 mg/l

#### **Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trimethoxyvinylsilane	LD50 = 7120 -7236 mg/kg (Rattus) OECD 401	= 3540 mg/kg (Oryctolagus cuniculus)	LC50 (4hr) 16.8 mg/l (Rattus) OECD TG 403
N-(3-(trimethoxysilyl)propyl)eth ylenediamine	=2295 mg/kg (Rattus)	>2000 mg/Kg (Rattus)	LC50 4H (Aerosol)1.5 - 2.44 mg/L air
N-[3-(Dimethoxymethylsilyl)pro pyl]-ethylenediamine	=200 - 2000 mg/Kg (Rattus) (OECD 401)	>5000 mg/Kg (Oryctolagus cuniculus) (OECD 402)	> 5.2 mg/L (Rat)4 h

#### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Component Information					
Trimethoxyvinylsilane (276	8-02-7)				
Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rabbit	Dermal	0.5 mL	24 hours	Non-irritant

N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2)					
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 404:	Rabbit	Dermal			irritant
Acute Dermal					
Irritation/Corrosion					

#### Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Component Information					
Trimethoxyvinylsilane (27	768-02-7)				
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405:	Rabbit	eye		24 hours	Non-irritant
Acute Eye					
Irritation/Corrosion					

N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2)					
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405:	Rabbit				Eye Damage
Acute Eye					
Irritation/Corrosion					

#### Respiratory or skin sensitization Based on available data, the classification criteria are not met.

Product Information			
Method	Species	Exposure route	Results
OECD Test No. 406: Skin	Guinea pig	Dermal	No sensitization responses
Sensitization			were observed
Component Information			
Trimethoxyvinylsilane (2768-02-7)			

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Method	Species	Exposure route	Results
OECD Test No. 406: Skin Sensitization, Buehler test	Guinea pig	Dermal	sensitizing

N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2)				
Method	Species	Exposure route	Results	
OECD Test No. 406: Skin	Guinea pig		Sensitizing	
Sensitization			_	

#### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Component Information			
Trimethoxyvinylsilane (2768-02-7)			
Method	Species	Results	
OECD Test No. 471: Bacterial Reverse	in vitro	Not mutagenic	
Mutation Test			

#### Carcinogenicity

Based on available data, the classification criteria are not met.

#### **Reproductive toxicity**

Based on available data, the classification criteria are not met.

Component Information				
Trimethoxyvinylsilane (2768-02-7)				
Method	Species	Results		
OECD Test No. 422: Combined Repeated	Rat	Not Classifiable		
Dose Toxicity Study with the				
Reproduction/Developmental Toxicity				
Screening Test				

## Specific target organ toxicity (single exposure)

Based on available data, the classification criteria are not met.

## **Specific target organ toxicity** Based on available data, the classification criteria are not met. (repeated exposure)

Component Information					
Trimethoxyvinylsilane (27	68-02-7)				
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 413:	Rat	Inhalation vapor		90 days	0.058 NOAEL
Subchronic Inhalation					
Toxicity: 90-day Study					

Aspiration hazard

Based on available data, the classification criteria are not met.

#### 12. Ecological information

#### **Ecotoxicity**

Chemical name	Algae/aquatic plants	Fish	Crustacea
Trimethoxyvinylsilane	EC 50 (72h) > 957 mg/l (Desmodesmus subspicatus) EU Method C.3	LC50 (96h) = 191 mg/l (Oncorhynchus mykiss)	EC50(48hr) 168.7mg/l (Daphnia magna)
N-(3-(trimethoxysilyl)propyl)eth		LC50 (96H) =597 mg/L	EC50 (48h) =81mg/L Daphnia

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ylenediamine (Danio rerio)Semi-static magna Static			
	ylenediamine	(Danio rerio)Semi-static	magna Static

Persistence and degradability No information available.

Bioaccumulative potential

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There is no data for this product.

**Component Information** 

Chemical name	Partition coefficient
Trimethoxyvinylsilane	1.1
N-(3-(trimethoxysilyl)propyl)ethylenediamine	-0.3

Chemical name	PBT and vPvB assessment
Trimethoxyvinylsilane 2768-02-7	The substance is not PBT / vPvB
N-(3-(trimethoxysilyl)propyl)ethylenediamine 1760-24-3	The substance is not PBT / vPvB
N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine 3069-29-2	The substance is not PBT / vPvB

Mobility in soil

No information available.

13. Disposal considerations			
<u>Waste chemicals</u> Waste from residues/unused products	Uncured product should be disposed of as hazardous waste. Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.		
Contaminated packaging	Handle contaminated packages in the same way as the product itself.		

## 14. Transport information

IMDG	Not regulated
IATA	Not regulated
ADR	Not regulated

#### Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

## 15. Regulatory information

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

#### National regulations

#### <u>Malaysia</u>

Chemical classification, Labelling and Safety Data Sheets Regulation, 2013(CLASS)

Industry Code Of Practice 2014 (ICOP)

#### <u>Indonesia</u>

• Regulation no. 87/M-IND/PER/9/2009 concerning Globally Harmonized System of Classification and Labelling of Chemicals, as amended by 23/M-IND/PER/4/2013

#### Singapore

• SS 586:2014

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<u>Vietnam</u>

• Circular 04/2012/TT-BCT dated 13/02/2012

#### **Philippines**

• Rules and Procedures for the Safety Data Sheet (SDS), Labeling Requirements and Hazards classification under DENR Administrative Order No. 29, series of 1992 of Republic Act 6969

Chemical Control Order Not applicable

Priority Chemical List (PCL) Not applicable

#### **Thailand**

Hazard Classification and Communication System of Hazardous Substance B.E. 2555 (2012)

The Hazardous Substance Act B.E. 2556 (2013) Not applicable

**International Regulations** 

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

#### Europe Registration, Evaluation, Authorization, and Restriction of Chemicals (REACh) Regulation (EC 1907/2006)

#### SVHC: Substances of Very High Concern for Authorization:

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

#### 2015/863/EU - RoHS

This product does not contain Lead, Cadmium, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-Ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) above the regulated limit mentioned in this regulation

## 16. Other information

#### **Local Contacts**

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Revision date	31-Mar-2022				
Revision Note	***Indicates updated data since last publica	ition.			
Abbrevietiene endeenen					
Abbreviations and acronyms	NTROLS/PERSONAL PROTECTION				
TWA	TWA (time-weighted average)				
STEL	STEL (Short Term Exposure Limit)				
Ceiling	Ceiling Limit Value				
*	Skin designation				
SVHC	Substance(s) of Very High Concern				
PBT	Persistent, Bioaccumulative, and Toxic (PB				
vPvB	Very Persistent and very Bioaccumulative (				
STOT RE STOT SE	Specific target organ toxicity - Repeated ex				
3101 SE	Specific target organ toxicity - Single expos	Suie			
Key literature references and sour	ces for data used to compile the SDS				
Agency for Toxic Substances and Di	sease Registry (ATSDR)				
U.S. Environmental Protection Agene					
European Food Safety Authority (EF					
EPA (Environmental Protection Ager					
Acute Exposure Guideline Level(s) (AEGL(s))					
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals					
Food Research Journal					
Hazardous Substance Database					
International Uniform Chemical Information Database (IUCLID)					
Japan GHS Classification					
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)					
NIOSH (National Institute for Occupa					
National Library of Medicine's ChemID Plus (NLM CIP)					
National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP)					
New Zealand's Chemical Classification and Information Database (CCID)					
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications					
Organization for Economic Co-operation and Development High Production Volume Chemicals Program					
	tion and Development Screening Information	Data Set			
RTECS (Registry of Toxic Effects of	Chemical Substances)				
World Health Organization					
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	ormation given is designed only as a guid				
	storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The				
information relates only to the sne	cific material designated and may not be	valid for such material used in			

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End of Safety Data Sheet