



# VT-632 Artificial Grass Adhesive

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
Issue date: 05/01/2022 Version: 1.0

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : VT-632 Artificial Grass Adhesive  
Product group : Trade product

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

##### 1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use  
Use of the substance/mixture : Sealants

##### 1.2.2. Uses advised against

No additional information available

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

##### Manufacturer

Vital Technical Sdn. Bhd.  
No.93, Jalan Industri 3/3 Rawang Integrated Industrial Park,  
48000 Rawang, Selangor, Malaysia.  
T +603 60942088 - F +603 60992930  
[sales@vitaltechnical.com](mailto:sales@vitaltechnical.com)

#### 1.4. Emergency telephone number

No additional information available

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Not classified

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

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

#### 2.2. Label elements

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

EUH-statements : EUH208 - Contains N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE, trimethoxyvinylsilane; trimethoxy(vinyl)silane, DIBUTYLBIS(PENTANE-2,4-DIONATO-O,O')TIN. May produce an allergic reaction.  
EUH210 - Safety data sheet available on request.

#### 2.3. Other hazards

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

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

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### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
trimethoxyvinylsilane; trimethoxy(vinyl)silane	CAS-No.: 2768-02-7 EC-No.: 220-449-8	0.1 – 1	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Sens. 1B, H317
N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE	CAS-No.: 1760-24-3 EC-No.: 217-164-6	0.1 – 1	Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
DIBUTYLBIS(PENTANE-2,4-DIONATO-O,O')TIN substance listed as REACH Candidate	CAS-No.: 22673-19-4 EC-No.: 245-152-0	0.1 – 1	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314 Skin Sens. 1, H317 Muta. 2, H341 Repr. 1A, H360 STOT SE 1, H370 STOT RE 1, H372 Aquatic Chronic 1, H410

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

## 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.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
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

No additional information available

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

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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### 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.
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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.
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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".

### 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. Wear personal protective equipment.  
Hygiene measures : 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.

### 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

1,2-BENZENEDICARBOXYLIC ACID,DI-C8-10-BRANCHED ALKYL ESTERS,C9-RICH (68515-48-0)	
<b>Denmark - Occupational Exposure Limits</b>	
Grænseværdi (8 timer) (mg/m <sup>3</sup> )	≈ 3 mg/m <sup>3</sup>
<b>Ireland - Occupational Exposure Limits</b>	
OEL (8 hours ref) (mg/m <sup>3</sup> )	≈ 5 mg/m <sup>3</sup>
<b>United Kingdom - Occupational Exposure Limits</b>	
WEL TWA (mg/m <sup>3</sup> )	≈ 5 mg/m <sup>3</sup>
<b>CALCIUM CARBONATE (471-34-1)</b>	
<b>France - Occupational Exposure Limits</b>	
VME [mg/m <sup>3</sup> ]	≈ 10 mg/m <sup>3</sup>
<b>Ireland - Occupational Exposure Limits</b>	
OEL (8 hours ref) (mg/m <sup>3</sup> )	≈ 10 mg/m <sup>3</sup>
<b>Latvia - Occupational Exposure Limits</b>	
OEL TWA (mg/m <sup>3</sup> )	≈ 6 mg/m <sup>3</sup>
<b>Poland - Occupational Exposure Limits</b>	
NDS (mg/m <sup>3</sup> )	≈ 10 mg/m <sup>3</sup>

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### CALCIUM CARBONATE (471-34-1)

#### United Kingdom - Occupational Exposure Limits

WEL TWA (mg/m <sup>3</sup> )	≈ 10 mg/m <sup>3</sup>
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#### Switzerland - Occupational Exposure Limits

MAK (mg/m <sup>3</sup> )	≈ 3 mg/m <sup>3</sup>
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#### 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 symbol(s):



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses

#### 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:

In case of insufficient ventilation, wear suitable respiratory equipment

#### 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	: Solid
Appearance	: Paste.

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Colour	: Green.
Odour	: odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: ≈ 1.64
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

### 9.2. Other information

VOC content : ≈ 18.59 g/l

## 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 toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### trimethoxyvinylsilane; trimethoxy(vinyl)silane (2768-02-7)

LD50 oral rat	7120 mg/kg
LD50 dermal	3259 mg/kg

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<b>N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE (1760-24-3)</b>	
LD50 oral rat	2295 mg/kg
LD50 dermal	2000 mg/kg
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
<b>N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE (1760-24-3)</b>	
STOT-single exposure	May cause respiratory irritation.
<b>DIBUTYLBIS(PENTANE-2,4-DIONATO-O,O')TIN (22673-19-4)</b>	
STOT-single exposure	Causes damage to organs.
STOT-repeated exposure	: Not classified
<b>DIBUTYLBIS(PENTANE-2,4-DIONATO-O,O')TIN (22673-19-4)</b>	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
<b>VT-632 Artificial Grass Adhesive</b>	
Viscosity, kinematic	Not applicable

## 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
Not rapidly degradable	

<b>trimethoxyvinylsilane; trimethoxy(vinyl)silane (2768-02-7)</b>	
LC50 fish 1	191 mg/l
EC50 other aquatic organisms 1	168.7 mg/l

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

<b>Component</b>	
DIBUTYLBIS(PENTANE-2,4-DIONATO-O,O')TIN (22673-19-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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### 12.6. Other adverse effects

No additional information available

## 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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
UN -	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Dangerous for the environment: No	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

No data available

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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

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Contains no REACH substances with Annex XVII restrictions

Contains a substance on the REACH candidate list in concentration  $\geq 0.1\%$  or with a lower specific limit: Dibutylbis(pentane-2,4-dionato-O,O')tin (EC 245-152-0, CAS 22673-19-4)

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

VOC content :  $\approx 18.59$  g/l

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

### 15.1.2. National regulations

#### Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG)  
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

#### Netherlands

ABM category : Z(1) - non biodegradable substances with hazardous properties for humans and the environment (carcinogenicity/ mutagenicity/ reprotoxicity/bioacumulative potential/ toxicity or persistence)

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : DIBUTYLBIS(PENTANE-2,4-DIONATO-O,O')TIN is listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : DIBUTYLBIS(PENTANE-2,4-DIONATO-O,O')TIN is listed

#### Denmark

Danish National Regulations : Pregnant/breastfeeding women working with the product must not be in direct contact with the product

#### Switzerland

Storage class (LK) : NG - Non-hazardous

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration



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Abbreviations and acronyms:	
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
EUH208	Contains N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE, trimethoxyvinylsilane; trimethoxy(vinyl)silane, DIBUTYLBIS(PENTANE-2,4-DIONATO-O,O')TIN. May produce an allergic reaction.
EUH210	Safety data sheet available on request.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H360	May damage fertility or the unborn child.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.

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Full text of H- and EUH-statements:	
H410	Very toxic to aquatic life with long lasting effects.
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 1A	Reproductive toxicity, Category 1A
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT SE 1	Specific target organ toxicity — single exposure, Category 1
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.