9 in 1 Universal Adhesive & Sealant - Safety Data Sheet

This safety data sheet was created pursuant to the requirements of: REACH Regulation (EC) No 1907/2006, as retained in UK law by (SI 2019/758 as amended).

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

1.1. Product identifier

Product Name:	9 in 1 Universal Adhesive & Sealant
Product Code:	247468 / 247357 / 247697 / 247146
UFI:	J7C3-EQ8K-X00V-KAJ5

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

Recommended use	Adhesives and/or sealants
Uses advised against	Not to be used in articles intended for direct or prolonged skin contact Not to be used in production of toys or childcare articles Fabrics, textiles and apparel: bedding and clothing Gloves Footwear (shoes, boots) Paper products: tissue, towels, disposable dinnerware, nappies, feminine hygiene products, adult incontinence products, writing paper
Reason why uses advised against	Restricted substance per REACH Annex XVII

1.3. Details of the supplier of the safety data sheet

Supplier:

T.I Midwood & Co. Ltd
TIMCO House
Green Lane
Wardle
Nantwich
CW5 6BJ

T.I Midwood & Co. Ltd
Aviemore House
Hill Street
Monahan
Ireland

Emergency Help Line: 01865 407333 (24 hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP (SI 2020/1567 as amended)

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Signal word
None

Hazard statements
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

EU Specific Hazard Statements

EUH208 - Contains Trimethoxyvinylsilane & N-(3-(trimethoxysilyl)propyl)ethylenediamine & N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine & Dioctyltinbis(acetylacetonate). May produce an allergic reaction
EUH210 - Safety data sheet available on request

2.3. Other hazards

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

PBT & vPvB
This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	EC No (EU Index No)	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	REACH registration number
Diisononyl phthalate	249-079-5	28553-12-0	10 - <20	[I]	-	01-2119430798-28-XXXX
Trimethoxyvinylsilane	220-449-8 (014-049-00-0)	2768-02-7	1 - <2.5	Skin Sens. 1B (H317) Acute Tox. 4 (H332) Flam. Liq. 3 (H226)	-	01-2119513215-52-XXXX
Titanium dioxide	236-675-5 (022-006-00-2)	13463-67-7	0.1- <1	[C]	-	01-2119489379-17-XXXX
N-(3-(trimethoxysilyl)propyl)ethylenediamine	217-164-6	1760-24-3	0.1- <1	Eye Dam. 1 (H318) Skin Sens. 1 (H317) Acute Tox. 4 (H332) STOT SE 3 (H335)	-	01-2119970215-39-XXXX
Dioctyltinbis(acetylacetonate)	483-270-6	54068-28-9	0.1 - <0.5	STOT SE 2 (H371) Skin Sens. 1 (H317)	Skin Sens. 1 :: C>=5%	01-0000020199-67-XXXX
N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine	221-336-6	3069-29-2	0.1 - <0.5	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1A (H317)	-	01-2119963926-21-xxxx

Classification according to Regulation (EC) No. 1272/2008 [CLP] - Notes
[C] - Components with occupational exposure limits and/or biological occupational exposure limits requiring monitoring
[I] - Restricted substance per REACH Annex XVII

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

Air contaminants formed when using the substance or mixture as intended

Chemical name	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	REACH registration number
Methyl alcohol 67-56-1	200-659-6 (603-001-00-X)	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) Flam. Liq. 2 (H225)	STOT SE 1 :: C>=10% STOT SE 2 :: 3%<=C<10%	-	-	01-2119433307-44-XXXX

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

Notes
See section 16 for more information

Chemical name	Notes
Titanium dioxide - 13463-67-7	V,W,10

SECTION 4: First aid measures

4.1. Description of 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 doctor.

Eye contact Consult an ophthalmologist. 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. In the case of skin irritation or allergic reactions see a doctor.

Ingestion Small amounts of toxic methanol are released by hydrolysis. Small amounts of toxic methanol are released by hydrolysis. Call a doctor immediately. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water.

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

Symptoms None known.

Effects of Exposure No information available.

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

Note to doctors	Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing. Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released, when the product is exposed to moisture or water. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Water spray, carbon dioxide (CO_2), dry chemical, alcohol-resistant foam.
Unsuitable extinguishing media	Full water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Thermal decomposition can lead to release of irritating gases and vapours.
Hazardous combustion products	Carbon oxides. Carbon monoxide. Carbon dioxide (CO_2). Silicon dioxide.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6: Accidental release measures

6.1. 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.

6.2. Environmental precautions

Environmental precautions	Prevent product from entering drains. Do not allow to enter into soil/subsoil. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment	Do not scatter spilled material with high pressure water streams.
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Ensure adequate ventilation.
General hygiene considerations	Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, well-ventilated place. Protect from moisture. Keep away from food, drink and animal feedingstuffs.

Recommended storage temperature Keep at temperatures between 10 and 35 °C.

7.3. Specific end use(s)

Specific use(s)
Adhesives and/or sealants.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other information Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing This product contains titanium dioxide in a non-respirable form. Inhalation of titanium dioxide is unlikely to occur from exposure to this product

Chemical name	European Union	United Kingdom
Diisononyl phthalate 28553-12-0	-	TWA: 5 mg/m³ STEL: 15 mg/m³
Methyl alcohol 67-56-1	TWA: 200 ppm TWA: 260 mg/m³ *	TWA: 200 ppm TWA: 266 mg/m³ STEL: 250 ppm STEL: 333 mg/m³ Sk*
Titanium dioxide 13463-67-7	-	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³
Dioctyltinbis(acetylacetonate) 54068-28-9	-	TWA: 0.1 mg/m³ STEL: 0.2 mg/m³ Sk*

Chemical name	European Union	Ireland	United Kingdom
Methyl alcohol 67-56-1	-	15 mg/L (urine - Methanol end of shift)	-

Derived No Effect Level (DNEL) No information available

Derived No Effect Level (DNEL)			
Diisononyl phthalate (28553-12-0)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	51.72 mg/m³	
worker Long term Systemic health effects	Dermal	366 mg/kg bw/d	

Trimethoxyvinylsilane (2768-02-7)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Systemic health effects	Inhalation	27,6 mg/m³	

Long term			
worker Systemic health effects Long term	Dermal	3,9 mg/kg bw/d	

Titanium dioxide (13463-67-7)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Local health effects	Inhalation	10 mg/m³	

N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Systemic health effects Long term	Inhalation	35.5 mg/m³	
worker Systemic health effects Long term	Dermal	5 mg/kg bw/d	

Dioctyltinbis(acetylacetonate) (54068-28-9)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Long term Systemic health effects worker	Dermal	0.07 mg/kg bw/d	
Long term Systemic health effects worker	Inhalation	84 mg/m³	
Short term Systemic health effects worker	Inhalation	84 mg/m³	
Long term Short term Local health effects worker	Inhalation	0.091 mg/m³	

N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	12 mg/m³	
worker Long term Systemic health effects	Dermal	1.7 mg/kg bw/d	

Derived No Effect Level (DNEL)			
Trimethoxyvinylsilane (2768-02-7)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Systemic health effects Long term	Inhalation	18,9 mg/m³	
Consumer Systemic health effects Long term	Dermal	7,8 mg/kg bw/d	

Consumer Systemic health effects Long term	Oral	0,3 mg/kg bw/d	

Titanium dioxide (13463-67-7)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Oral	700 mg/kg bw/d	

N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Systemic health effects Long term	Oral	2.5 mg/kg bw/d	
Consumer Systemic health effects Long term	Inhalation	8.7 mg/m³	
Consumer Systemic health effects Long term	Dermal	2.5 mg/kg bw/d	

N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	2.9 mg/m³	
Consumer Long term Systemic health effects	Dermal	0.83 mg/kg bw/d	
Consumer Long term Systemic health effects	Oral	0.83 mg/kg bw/d	

Predicted No Effect Concentration (PNEC)

Predicted No Effect Concentration (PNEC)	
Trimethoxyvinylsilane (2768-02-7)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.34 mg/l
Marine water	0.034 mg/l
Microorganisms in sewage treatment	110 mg/l

Titanium dioxide (13463-67-7)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Marine water	0.0184 mg/l
Freshwater sediment	1000 mg/kg
Freshwater	0.184 mg/l
Marine sediment	100 mg/kg
Soil	100 mg/kg
Microorganisms in sewage treatment	100 mg/l
Freshwater - intermittent	0.193 mg/l

N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.062 mg/l

Marine water	0.0062 mg/l
Sewage treatment plant	25 mg/l

Dioctyltinbis(acetylacetonate) (54068-28-9)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	26 µg/l
Marine water	2.6 µg/l
Freshwater - intermittent	260 µg/l
Sewage treatment plant	1 mg/l
Freshwater sediment	0.155 mg/kg dry weight
Marine sediment	0.0155 mg/kg dry weight
Soil	0.0158 mg/kg dry weight

N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.062 mg/l
Marine water	0.006 mg/l
Sewage treatment plant	25 mg/l
Freshwater sediment	0.24 mg/kg dry weight
Marine sediment	0.024 mg/kg dry weight
Soil	0.01 mg/kg dry weight

8.2. Exposure controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

Hand protection Wear suitable gloves. Recommended Use:. Neoprene™. Nitrile rubber. Butyl rubber. Glove thickness > 0.7mm. The breakthrough time for the mentioned glove material is in general greater than 480 min. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374

Skin and body protection None under normal use conditions.

Respiratory protection In case of inadequate ventilation wear respiratory protection. Wear a respirator conforming to EN 140 with Type A/P2 filter or better. Ensure adequate ventilation, especially in confined areas.

Recommended filter type: Organic gases and vapours filter conforming to EN 14387. White. Brown.

Environmental exposure controls Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Solid
Appearance Paste
Colour White
Odour Characteristic.

Property	**Values**	**Remarks • Method**
Melting point / freezing point	No data available	
Initial boiling point and boiling range	No data available	
Flammability	No data available	
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	> 60 °C	CC (closed cup)
Autoignition temperature	No data available	

Decomposition temperature		None known
pH	.	Not applicable. Reacts with water.
pH (as aqueous solution)	No data available	
Kinematic viscosity	> 21 mm²/s	@ 40°C
Dynamic viscosity	No data available	
Water solubility	Reacts with water. Product cures with moisture	
Solubility(ies)	No data available	
Partition coefficient	No data available	
Vapour pressure	No data available	
Relative density	No data available	
Bulk Density	No data available	
Density	1.58 g/cm³	
Relative vapour density	No data available	
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

Solid content (%)	No information available	
VOC content		No data available

9.2.1. Information with regards to physical hazard classes

Not applicable

9.2.2. Other safety characteristics

No information available

Minimum Ignition Temperature (°C)	420

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Product cures with moisture.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

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.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products	None under normal use conditions. Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

Inhalation	Based on available data, the classification criteria are not met.
Eye contact	Based on available data, the classification criteria are not met.
Skin contact	Based on available data, the classification criteria are not met. May cause sensitisation in susceptible persons.
Ingestion	Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

Numerical measures of toxicity

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

ATEmix (oral)	>5000 mg/kg
ATEmix (dermal)	>5000 mg/kg
ATEmix (inhalation-gas)	>20000 ppm
ATEmix (inhalation-dust/mist)	>5 mg/l
ATEmix (inhalation-vapour)	743.10 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Diisononyl phthalate	>9750 mg/kg (Rattus)	>3160 mg/Kg (Oryctolagus cuniculus)	>4.4 mg/L (Rattus) 4 h
Trimethoxyvinylsilane	LD50 = 7120 -7236 mg/kg (Rattus) OECD 401	= 3540 mg/kg (Oryctolagus cuniculus)	LC50 (4hr) 16.8 mg/l (Rattus) OECD TG 403
Titanium dioxide	>10000 mg/kg (Rattus)	LD50 > 5000 mg/Kg	= 5.09 mg/L (Rattus) 4 h
N-(3-(trimethoxysilyl)propyl)ethylenediamine	=2295 mg/kg (Rattus)	>2000 mg/Kg (Rattus)	LC50 4H (Aerosol)1.5 - 2.44 mg/L air
Dioctyltinbis(acetylacetonate)	LD50 =2500 mg/kg (Rattus)	LD50 >2000 mg/kg (Rattus)	= 5.1 mg/L (Rat) 4 h
N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine	=200 - 2000 mg/Kg (Rattus) (OECD 401)	>5000 mg/Kg (Oryctolagus cuniculus) (OECD 402)	> 5.2 mg/L (Rattus) 4 h (OECD 403)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Titanium dioxide (13463-67-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results

OECD Test No. 404: Acute Dermal Irritation/Corrosion	Rabbit	Dermal			Non-irritant

N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 404: Acute Dermal Irritation/Corrosion	Rabbit				Mild skin irritant

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

Titanium dioxide (13463-67-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	Eye			Non-irritant

N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	eye			Eye Damage

Respiratory or skin sensitisation OECD Test No. 406: Skin Sensitisation. No sensitisation responses were observed. No classification is proposed, based on conclusive negative data. May cause sensitisation in susceptible persons.

Product Information			
Method	Species	Exposure route	Results
OECD Test No. 406: Skin Sensitisation	Guinea pig	Dermal	No sensitisation responses were observed
OECD Test No. 406: Skin Sensitisation	Guinea pig	Dermal	No sensitisation responses were observed

Titanium dioxide (13463-67-7)

Method	Species	Exposure route	Results
OECD Test No. 406: Skin Sensitisation	Guinea pig	Dermal	Not a skin sensitiser
OECD Test No. 429: Skin Sensitisation: Local Lymph Node Assay	Mouse	Dermal	Not a skin sensitiser

Dioctyltinbis(acetylacetonate) (54068-28-9)

Method	Species	Exposure route	Results
OECD Test No. 429: Skin Sensitisation: Local Lymph Node Assay		Dermal	> 5 % sensitising

N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2)

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 Mutation Test	in vitro	Not mutagenic

N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)

Method	Species	Results
OECD Test No. 471: Bacterial Reverse Mutation Test	Mammalian cells in vitro	Negative
OECD Test No. 476: In vitro Mammalian Cell Gene Mutation Test	Mammalian cells in vitro	Negative

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

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
Titanium dioxide	Carc. 2

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

N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)

Method	Species	Results
OECD Test No. 422: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test	Rat Oral	NOAEL >500 mg/Kg

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Trimethoxyvinylsilane (2768-02-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 413: Sub-chronic Inhalation Toxicity: 90-day Study	Rat	Inhalation vapour		90 days	0.058 NOAEL

N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 422: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test	Rat	Subacute oral toxicity gavage		28 days	NOAEL >500 mg/kg

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

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity The environmental impact of this product has not been fully investigated.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea	M-Factor	M-Factor (long-term)
Diisononyl phthalate 28553-12-0	EC50: >500mg/L (72h, Desmodesmus subspicatus) EC50: >1.8mg/L (96h, Pseudokirchneriella subcapitata)	LC50 96 h > 100 mg/L (Brachydanio rerio semi-static)	-	EC50: >500mg/L (48h, Daphnia magna) EC50: >0.06mg/L (48h, Daphnia magna)		
Trimethoxyvinylsilane 2768-02-7	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)		
Titanium dioxide 13463-67-7	LC50 (96h) >10000 mg/l (Cyprinodon variegatus) OECD 203	-	-	-		
N-(3-(trimethoxysilyl)propyl)ethylenediamine 1760-24-3	-	LC50 (96H) =597 mg/L (Danio rerio)Semi-static	-	EC50 (48h) =81mg/L Daphnia magna Static		
Dioctyltinbis(acetylacetonate) 54068-28-9	-	LC50 (96h) =86 mg/L (Static)	-	EC50 (48h) =58.6 mg/L (Daphnia magna)		

12.2. Persistence and degradability

Persistence and degradability No information available.

Trimethoxyvinylsilane (2768-02-7)

Method	Exposure time	Value	Results
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F)	28 days	BOD	51 % Not readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Diisononyl phthalate	9.7
Trimethoxyvinylsilane	1.1
N-(3-(trimethoxysilyl)propyl)ethylenediamine	-0.3

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

Chemical name	PBT and vPvB assessment
Diisononyl phthalate	The substance is not PBT / vPvB
Trimethoxyvinylsilane	The substance is not PBT / vPvB
Titanium dioxide	The substance is not PBT / vPvB
N-(3-(trimethoxysilyl)propyl)ethylenediamine	The substance is not PBT / vPvB
Dioctyltinbis(acetylacetonate)	The substance is not PBT / vPvB
N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products 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.

European Waste Catalogue 08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

Other information Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

IMDG

14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Marine pollutant NP
14.6 Special precautions for user
Special Provisions None
14.7 Maritime transport in bulk according to IMO instruments
Transport in bulk according to Annex II of MARPOL and the IBC Code Not applicable

Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number Not regulated

14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

Section 15: REGULATORY INFORMATION

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Check whether measures in accordance with Directive 94/33/EC for the protection of young people at work must be taken.

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACh) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:
This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical name	CAS No.	Restricted substance per REACH Annex XVII
Diisononyl phthalate	28553-12-0	52[a].
Dioctyltinbis(acetylacetonate)	54068-28-9	20.

20 (6) DOT. **52** . Not to be used in toys or childcare articles above 0.1% which can be placed in the mouth by children.

Substance subject to authorisation per REACH Annex XIV
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Export Notification requirements
This product contains substances which are regulated pursuant to Regulation (EC) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals

Chemical name	European Export/Import Restrictions per (EC) 649/2012 - Annex Number
Dioctyltinbis(acetylacetonate)	I.1

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

Persistent Organic Pollutants
Not applicable

This safety data sheet was created pursuant to the requirements of: REACH Regulation (EC) No 1907/2006, as retained in UK law by (SI 2019/758 as amended).

National regulations

15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H226 - Flammable liquid and vapour
H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H371 - May cause damage to organs

Notes relating to the identification, classification and labelling of substances

Note V: If the substance is to be placed on the market as fibres (with diameter < 3 µm, length > 5 µm and aspect ratio ≥ 3:1) or particles of the substance fulfilling the WHO fibre criteria or as particles with modified surface chemistry, their hazardous properties must be evaluated in accordance with Title II of this Regulation, to assess whether a higher category (Carc. 1B or 1A) and/or additional routes of exposure (oral or dermal) should be applied

Note W: It has been observed that the carcinogenic hazard of this substance arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung

Notes relating to the classification and labelling of mixtures

Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm

Legend

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value
Sk*	Skin designation
SVHC	Substance(s) of Very High Concern
PBT	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB	Very Persistent and very Bioaccumulative (vPvB) Chemicals
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
EWC	European Waste Catalogue
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG	International Maritime Dangerous Goods (IMDG)
IATA	International Air Transport Association (IATA)
RID	Regulations concerning the International Transport of Dangerous Goods by Rail

Key literature references and sources for data
No information available

Revision date	23-Jan-2024
Revision note	Not applicable.
Training Advice	No information available
Further information	No information available

This SDS complies with the requirements of UK REACH Regulations SI 2019/758 (as amended)

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Head Office: TIMCO House, Green Lane, Wardle, Nantwich, CW5 6BJ | Tel: +44 (0)1829 261111 | Fax: +44 (0)1829 261102 | Web: timco.co.uk