

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: 10660670, 10660671, 10734577, 10734578 - FIX-R Liquid Roofing 4L & 15L

Other means of identification:

Not relevant

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

Relevant uses: Waterproofing. For professional users only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

FIX-R
Harding Way
PE27 3YJ St Ives - Cambridgeshire - United Kingdom
Phone: +44 (0) 1480 466 777
sigassured@sigplc.com
www.fix-r.co.uk

1.4 Emergency telephone number: +44 (0) 1274 696979 (Monday - Friday 8am - 5pm GMT)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):

Classification of this product has been carried out in accordance with GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567).

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412

2.2 Label elements:

GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):

Hazard statements:

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements:

P273: Avoid release to the environment.

P501: Dispose of the contents and/or its container in line with regulations on dangerous waste or packaging and waste packaging respectively.

Supplementary information:

EUH208: Contains Hydrocarbons, C9-unsaturated, polymerised, Trimethoxyvinylsilane. May produce an allergic reaction.

EUH211: Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

2.3 Other hazards:

Product does not meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:




Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances

Components:

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 471-34-1	Calcium Carbonate	20 - <30 %
CAS: 1314-13-2	zinc oxide Aquatic Acute 1: H400; Aquatic Chronic 1: H410 - Warning	1 - <5 % 
CAS: 2768-02-7	Trimethoxyvinylsilane Flam. Liq. 3: H226; Skin Sens. 1B: H317 - Warning	1 - <5 %  

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Identification	Chemical name/Classification	Concentration
CAS: 13463-67-7	Titanium dioxide (aerodynamic diameter $\leq 10 \mu\text{m}$) Carc. 2: H351 - Warning	1 - <5 %
CAS: 1333-86-4	Carbon black	0.1 - <1 %
CAS: 2943-75-1	Triethoxyoctylsilane Aquatic Chronic 2: H411; Skin Irrit. 2: H315 - Warning	0.1 - <1 %
CAS: 71302-83-5	Hydrocarbons, C9-unsaturated, polymerised Aquatic Chronic 3: H412; Skin Sens. 1A: H317 - Warning	0.1 - <1 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Trimethoxyvinylsilane (CAS: 2768-02-7) - Whilst the classification on ECHA lists this as H317, there has been a test conducted that demonstrated the absence of sensitizing effect.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or if necessary shower the affected person thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Not relevant

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...).

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SECTION 5: FIREFIGHTING MEASURES (continued)

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Specific storage requirements

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

See Section 1.2

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

8.1 Control parameters:

Substances whose occupational exposure limits have to be assessed in the workplace:

EH40/2005 Workplace exposure limits, fourth edition, published 2020:

Identification	Occupational exposure limits		
	WEL (8h)	WEL (15 min)	WEL (30 min)
Carbon black CAS: 1333-86-4	3.5 mg/m ³	7 mg/m ³	
2-methoxy-1-methylethyl acetate ⁽¹⁾ CAS: 108-65-6	50 ppm	100 ppm	274 mg/m ³ 548 mg/m ³
methanol ⁽¹⁾ CAS: 67-56-1	200 ppm	250 ppm	266 mg/m ³ 333 mg/m ³
Dibutyltin Dilaurate CAS: 77-58-7			0.1 mg/m ³ 0.2 mg/m ³
Titanium dioxide (aerodynamic diameter ≤ 10 µm) CAS: 13463-67-7	4 mg/m ³		

⁽¹⁾ Skin

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Calcium Carbonate CAS: 471-34-1 EC: 207-439-9	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	6.36 mg/m ³
zinc oxide CAS: 1314-13-2 EC: 215-222-5	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	83 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	5 mg/m ³	0.5 mg/m ³
Trimethoxyvinylsilane CAS: 2768-02-7 EC: 220-449-8	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	3.9 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	27.6 mg/m ³	Not relevant
Triethoxyoctylsilane CAS: 2943-75-1 EC: 220-941-2	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	2.5 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	17.6 mg/m ³	Not relevant
Hydrocarbons, C9-unsaturated, polymerised CAS: 71302-83-5 EC: 615-276-3	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	3.5 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	1.41 mg/m ³	Not relevant

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Calcium Carbonate CAS: 471-34-1 EC: 207-439-9	Oral	6.1 mg/kg	Not relevant	6.1 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	1.06 mg/m ³
zinc oxide CAS: 1314-13-2 EC: 215-222-5	Oral	Not relevant	Not relevant	0.83 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	83 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	2.5 mg/m ³	Not relevant
Trimethoxyvinylsilane CAS: 2768-02-7 EC: 220-449-8	Oral	Not relevant	Not relevant	0.3 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	7.8 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	18.9 mg/m ³	Not relevant
Triethoxyoctylsilane CAS: 2943-75-1 EC: 220-941-2	Oral	Not relevant	Not relevant	1.25 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	1.25 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	4.3 mg/m ³	Not relevant
Hydrocarbons, C9-unsaturated, polymerised CAS: 71302-83-5 EC: 615-276-3	Oral	Not relevant	Not relevant	0.2 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	0.42 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0.348 mg/m ³	Not relevant

PNEC:

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)


Identification				
Calcium Carbonate CAS: 471-34-1 EC: 207-439-9	STP	100 mg/L	Fresh water	Not relevant
	Soil	Not relevant	Marine water	Not relevant
	Intermittent	Not relevant	Sediment (Fresh water)	Not relevant
	Oral	Not relevant	Sediment (Marine water)	Not relevant
zinc oxide CAS: 1314-13-2 EC: 215-222-5	STP	0.1 mg/L	Fresh water	0.0206 mg/L
	Soil	35.6 mg/kg	Marine water	0.0061 mg/L
	Intermittent	Not relevant	Sediment (Fresh water)	117.8 mg/kg
	Oral	Not relevant	Sediment (Marine water)	56.5 mg/kg
Hydrocarbons, C9-unsaturated, polymerised CAS: 71302-83-5 EC: 615-276-3	STP	2.2 mg/L	Fresh water	0.0258 mg/L
	Soil	625 mg/kg	Marine water	0.00258 mg/L
	Intermittent	0.258 mg/L	Sediment (Fresh water)	3137 mg/kg
	Oral	0.00889 g/kg	Sediment (Marine water)	314 mg/kg

8.2 Exposure controls:


A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<UKCA marking>> or <<CE marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection


Pictogram	PPE	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands



Pictogram	PPE	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Remarks
 Mandatory face protection	Face shield	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.



E.- Body protection

Pictogram	PPE	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk	Replace boots at any sign of deterioration.

F.- Additional emergency measures

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2012:

V.O.C. (Supply):	2.08 % weight
V.O.C. density at 20 °C:	Not relevant

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Not available
Colour:	Grey
Odour:	Characteristic
Odour threshold:	Not relevant *

Volatility:

Boiling point at atmospheric pressure:	>35 °C
Vapour pressure at 20 °C:	Not relevant *
Vapour pressure at 50 °C:	Not relevant *
Evaporation rate at 20 °C:	Not relevant *

Product description:

Density at 20 °C:	Not relevant *
Relative density at 20 °C:	Not relevant *
Dynamic viscosity at 20 °C:	Not relevant *
Kinematic viscosity at 20 °C:	Not relevant *
Kinematic viscosity at 40 °C:	Not relevant *
Concentration:	Not relevant *
pH:	Not relevant *
Vapour density at 20 °C:	Not relevant *
Partition coefficient n-octanol/water 20 °C:	Not relevant *
Solubility in water at 20 °C:	Not relevant *
Solubility properties:	Not relevant *
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *

Flammability:

Flash Point:	ca. 39 - 45 °C (Does not maintain combustion)
Flammability (solid, gas):	Not relevant *
Autoignition temperature:	404 °C
Lower flammability limit:	Not relevant *

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Upper flammability limit: Not relevant *

Particle characteristics:

Median equivalent diameter: Non-applicable

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties: Not relevant *

Oxidising properties: Not relevant *

Corrosive to metals: Not relevant *

Heat of combustion: Not relevant *

Aerosols-total percentage (by mass) of flammable components: Not relevant *

Other safety characteristics:

Surface tension at 20 °C: Not relevant *

Refraction index: Not relevant *

Not Sustained Combustibility: Yes

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Precaution	Precaution	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for consumption. For more information see section 3
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

- CONTINUED ON NEXT PAGE -

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with carcinogenic effects. For more information see section 3.
IARC: Carbon black (2B); Titanium dioxide (aerodynamic diameter $\leq 10 \mu\text{m}$) (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with sensitising effects. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

CAS 13463-67-7 Titanium dioxide (aerodynamic diameter $\leq 10 \mu\text{m}$): 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 $\leq 10 \mu\text{m}$

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Calcium Carbonate CAS: 471-34-1	LD50 oral	>5000 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L	
zinc oxide CAS: 1314-13-2	LD50 oral	7950 mg/kg	Mouse
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L	
Trimethoxyvinylsilane CAS: 2768-02-7	LD50 oral	7236 mg/kg	Rat
	LD50 dermal	3880 mg/kg	Rabbit
	LC50 inhalation	>20 mg/L	
Titanium dioxide (aerodynamic diameter $\leq 10 \mu\text{m}$) CAS: 13463-67-7	LD50 oral	10000 mg/kg	Rat
	LD50 dermal	10000 mg/kg	Rabbit
	LC50 inhalation	>5 mg/L	
Carbon black CAS: 1333-86-4	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L	

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Triethoxyoctylsilane CAS: 2943-75-1	5110 mg/kg	6730 mg/kg	Rat
	LC50 inhalation	>20 mg/L	Rabbit
Hydrocarbons, C9-unsaturated, polymerised CAS: 71302-83-5	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Harmful to aquatic life with long lasting effects.

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
	LC50	EC50		
Calcium Carbonate CAS: 471-34-1	56000 mg/L (96 h)	Not relevant	Gambusia affinis	Fish
	EC50	Not relevant		
zinc oxide CAS: 1314-13-2	0.82 mg/L (96 h)	3.4 mg/L (48 h)	Oncorhynchus kisutch	Fish
	EC50	Not relevant	Daphnia magna	Crustacean
	EC50	Not relevant		
Trimethoxyvinylsilane CAS: 2768-02-7	191 mg/L (96 h)	167 mg/L (48 h)	Oncorhynchus mykiss	Fish
	EC50	957 mg/L (72 h)	Daphnia magna	Crustacean
	EC50		N/A	Algae
Triethoxyoctylsilane CAS: 2943-75-1	>1 - 10 mg/L (96 h)	>1 - 10 mg/L (48 h)		Fish
	EC50	>1 - 10 mg/L (72 h)		Crustacean
	EC50			Algae
Hydrocarbons, C9-unsaturated, polymerised CAS: 71302-83-5	>10 - 100 mg/L (96 h)	>10 - 100 mg/L (48 h)		Fish
	EC50	>10 - 100 mg/L (72 h)		Crustacean
	EC50			Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
	NOEC	EC50		
zinc oxide CAS: 1314-13-2	0.44 mg/L	0.031 mg/L	Oncorhynchus mykiss	Fish
	NOEC		Daphnia magna	Crustacean
Trimethoxyvinylsilane CAS: 2768-02-7	Not relevant	28.1 mg/L		
	NOEC		Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
	BOD5	COD	Concentration	Period
Trimethoxyvinylsilane CAS: 2768-02-7	Not relevant	Not relevant	104 mg/L	28 days
	BOD5/COD	Not relevant	% Biodegradable	51 %
Triethoxyoctylsilane CAS: 2943-75-1	Not relevant	Not relevant	5 mg/L	28 days
	BOD5/COD	Not relevant	% Biodegradable	31.5 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
	BCF	Pow Log
Triethoxyoctylsilane CAS: 2943-75-1	1890	1.1
	Potential	Very High

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SECTION 12: ECOLOGICAL INFORMATION (continued)

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Triethoxyoctylsilane CAS: 2943-75-1	Koc	10000	Henry
	Conclusion	Immobile	Dry soil	Not relevant
	Surface tension	Not relevant	Moist soil	Not relevant

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances	Hazardous

Type of waste:

HP14 Ecotoxic

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste (England & Wales) Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of UK REACH the provisions related to waste management are stated:

UK legislation: The Waste (England & Wales) Regulations 2011.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:

- 14.1 UN number: Not relevant
- 14.2 UN proper shipping name: Not relevant
- 14.3 Transport hazard class(es): Not relevant
- Labels: Not relevant
- 14.4 Packing group: Not relevant
- 14.5 Environmental hazards: No
- 14.6 Special precautions for user
 - Tunnel restriction code: Not relevant
 - Physico-Chemical properties: see section 9
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not relevant

Transport of dangerous goods by sea:

With regard to IMDG 41-22:

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SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number:	Not relevant
14.2 UN proper shipping name:	Not relevant
14.3 Transport hazard class(es):	Not relevant
Labels:	Not relevant
14.4 Packing group:	Not relevant
14.5 Marine pollutant:	No
14.6 Special precautions for user	
Special regulations:	Not relevant
EmS Codes:	
Physico-Chemical properties:	see section 9
Limited quantities:	Not relevant
Segregation group:	Not relevant
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2024:

14.1 UN number:	Not relevant
14.2 UN proper shipping name:	Not relevant
14.3 Transport hazard class(es):	Not relevant
Labels:	Not relevant
14.4 Packing group:	Not relevant
14.5 Environmental hazards:	No
14.6 Special precautions for user	
Physico-Chemical properties:	see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Not relevant

SECTION 15: REGULATORY INFORMATION

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

- Substances listed in UK candidate list of substances of very high concern (SVHCs): Not relevant
- Substances listed in UK REACH Authorisation List (Annex 14): Not relevant

The Control of Major Accident Hazards Regulations 2015:

Not relevant

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc ...):

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.
Control of Substances Hazardous to Health Regulations 2002 (as amended)
EH40/2005 Workplace exposure limits.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

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SECTION 16: OTHER INFORMATION (continued)

This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

Texts of the legislative phrases mentioned in section 2:

H412: Harmful to aquatic life with long lasting effects.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):

Aquatic Acute 1: H400 - Very toxic to aquatic life.

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.

Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Carc. 2: H351 - Suspected of causing cancer (Inhalation).

Flam. Liq. 3: H226 - Flammable liquid and vapour.

Skin Irrit. 2: H315 - Causes skin irritation.

Skin Sens. 1A: H317 - May cause an allergic skin reaction.

Skin Sens. 1B: H317 - May cause an allergic skin reaction.

Classification procedure:

Aquatic Chronic 3: Calculation method

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

LogPOW: Octanolwater partition coefficient

Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at UK, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -