

Safety data sheet

This SDS is an English translation of Regulation (EU) n° 2015/830, without any country-specific legislation

FX PROTECT G-FINITY GRAPHENE COATING

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

1.1 Product identifier: FX PROTECT G-FINITY GRAPHENE COATING

Other means of identification:

UFI: 1VJ1-X0FU-0004-686N

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

Relevant uses: Waterproofing

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:

FX International Sp. z o.o.
Strefa Gospodarcza 4
44-280 Rydułtowy
tel.: +48 577 899 066
biuro@fxprotect.pl
fxprotect.com

1.4 Emergency telephone number: 112

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

CLP Regulation (EC) No 1272/2008:

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Asp. Tox. 1: Aspiration hazard, Category 1, H304
Skin Corr. 1B: Skin corrosion, Category 1B, H314
Skin Sens. 1: Sensitisation, skin, Category 1, H317
Repr 1A: Reproduction toxicity, H360FD

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Danger



Hazard statements:

Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Sens. 1: H317 - May cause an allergic skin reaction.
Repr 1A, H360FD- May damage fertility. Suspected of damaging the unborn child.

Precautionary statements:

P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P301+ P310: F SWALLOWED: Immediately call a doctor
P331: Do NOT induce vomiting
P405: Store locked up.
P501: Dispose of contents/container according to the separated collection system used in your municipality.

Supplementary information:

EUH066: Repeated exposure may cause skin dryness or cracking.
Contains Dibutyltin Dilaurate.

Substances that contribute to the classification

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics; Trimethoxy(methyl)silane; 3-aminopropyltriethoxysilane

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SECTION 2: HAZARDS IDENTIFICATION (continued)

2.3 Other hazards:

Product fails to meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:














Non-applicable

3.2 Mixture:

Chemical description: Mixture composed of chemical products

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: Non-applicable EC: 918-481-9 Index: Non-applicable REACH: 01-2119457273-39-XXXX	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics⁽¹⁾ Self-classified		50 - <75 %
	Regulation 1272/2008	Asp. Tox. 1: H304; EUH066 - Danger 	
CAS: 1185-55-3 EC: 214-685-0 Index: Non-applicable REACH: 01-2119517436-40-XXXX	Trimethoxy(methyl)silane⁽¹⁾ Self-classified		25 - <50 %
	Regulation 1272/2008	Flam. Liq. 2: H225; Skin Sens. 1: H317 - Danger  	
CAS: 919-30-2 EC: 213-048-4 Index: 612-108-00-0 REACH: 01-2119480479-24-XXXX	3-aminopropyltriethoxysilane⁽¹⁾ ATP CLP00		10 - <25 %
	Regulation 1272/2008	Acute Tox. 4: H302; Skin Corr. 1B: H314 - Danger  	
CAS: 2943-75-1 EC: 220-941-2 Index: Non-applicable REACH: 01-2119972313-39-XXXX	Triethoxyoctylsilane⁽¹⁾ Self-classified		2,5 - <10 %
	Regulation 1272/2008	Aquatic Chronic 2: H411; Skin Irrit. 2: H315 - Warning  	
CAS: 77-58-7 EC: 201-039-8 Index: 050-030-00-3 REACH: 01-2119496068-27-XXXX	Dibutyltin Dilaurate⁽¹⁾ Self-classified		<1 %
	Regulation 1272/2008	Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Irrit. 2: H319; Muta. 2: H341; Repr. 1B: H360; Skin Sens. 1: H317; STOT RE 1: H372; STOT SE 1: H370 - Danger   	
CAS: 67-56-1 EC: 200-659-6 Index: 603-001-00-X REACH: 01-2119433307-44-XXXX	methanol⁽²⁾ ATP CLP00		<1 %
	Regulation 1272/2008	Acute Tox. 3: H301+H311+H331; Flam. Liq. 2: H225; STOT SE 1: H370 - Danger   	

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830

⁽²⁾ Substance with a Union workplace exposure limit

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

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

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SECTION 4: FIRST AID MEASURES (continued)

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

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:

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂).

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,...) in accordance with Directive 89/654/EC.

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. Destroy 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:

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.

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

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

Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,...) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 2014/34/EC (ATEX 100) and with the minimum requirements for protecting the security and health of workers under the selection criteria of Directive 1999/92/EC (ATEX 137). Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

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.- Technical measures for storage

Minimum Temp.:	5 °C
Maximum Temp.:	30 °C
Maximum time:	24 Months

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):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC, Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification	Occupational exposure limits		
	IOELV (8h)	200 ppm	260 mg/m ³
methanol CAS: 67-56-1 EC: 200-659-6	IOELV (STEL)		

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Trimethoxy(methyl)silane CAS: 1185-55-3 EC: 214-685-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	260 mg/m ³	Non-applicable
3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	2 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	14 mg/m ³	Non-applicable
Triethoxyoctylsilane CAS: 2943-75-1 EC: 220-941-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	2,5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	17,6 mg/m ³	Non-applicable

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Dibutyltin Dilaurate CAS: 77-58-7 EC: 201-039-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	2,08 mg/kg	Non-applicable	0,43 mg/kg	Non-applicable
	Inhalation	0,059 mg/m ³	Non-applicable	0,02 mg/m ³	Non-applicable
methanol CAS: 67-56-1 EC: 200-659-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	20 mg/kg	Non-applicable	20 mg/kg	Non-applicable
	Inhalation	130 mg/m ³	130 mg/m ³	130 mg/m ³	130 mg/m ³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Trimethoxy(methyl)silane CAS: 1185-55-3 EC: 214-685-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	50 mg/m ³	Non-applicable
3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4	Oral	Non-applicable	Non-applicable	1 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	1 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	3,5 mg/m ³	Non-applicable
Triethoxyoctylsilane CAS: 2943-75-1 EC: 220-941-2	Oral	Non-applicable	Non-applicable	1,25 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	1,25 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	4,3 mg/m ³	Non-applicable
Dibutyltin Dilaurate CAS: 77-58-7 EC: 201-039-8	Oral	0,02 mg/kg	Non-applicable	0,003 mg/kg	Non-applicable
	Dermal	0,5 mg/kg	Non-applicable	0,16 mg/kg	Non-applicable
	Inhalation	0,04 mg/m ³	Non-applicable	0,005 mg/m ³	Non-applicable
methanol CAS: 67-56-1 EC: 200-659-6	Oral	4 mg/kg	Non-applicable	4 mg/kg	Non-applicable
	Dermal	4 mg/kg	Non-applicable	4 mg/kg	Non-applicable
	Inhalation	26 mg/m ³	26 mg/m ³	26 mg/m ³	26 mg/m ³

PNEC:

Identification					
3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4	STP	1,3 mg/L	Fresh water	Non-applicable	
	Soil	Non-applicable	Marine water	Non-applicable	
	Intermittent	Non-applicable	Sediment (Fresh water)	Non-applicable	
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable	
Dibutyltin Dilaurate CAS: 77-58-7 EC: 201-039-8	STP	100 mg/L	Fresh water	0 mg/L	
	Soil	0,041 mg/kg	Marine water	0 mg/L	
	Intermittent	0,005 mg/L	Sediment (Fresh water)	0,05 mg/kg	
	Oral	0,0002 g/kg	Sediment (Marine water)	0,005 mg/kg	
methanol CAS: 67-56-1 EC: 200-659-6	STP	100 mg/L	Fresh water	20,8 mg/L	
	Soil	100 mg/kg	Marine water	2,08 mg/L	
	Intermittent	1540 mg/L	Sediment (Fresh water)	77 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	7,7 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 <<CE marking>> in accordance with Regulation (EU) 2016/425. 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



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours		EN 405:2002+A1:2010	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	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves		EN ISO 374-1:2016+A1:2018 EN 16523-1:2015+A1:2018 EN 420:2004+A1:2010	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.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield		EN 166:2002 EN 167:2002 EN 168:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties		EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties		EN ISO 13287:2013 EN ISO 20345:2011 EN 13832-1:2019	Replace boots at any sign of deterioration.

F.- Additional emergency measures

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

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	51,01 % weight
V.O.C. density at 20 °C:	432,92 kg/m ³ (432,92 g/L)
Average carbon number:	11,95
Average molecular weight:	129,89 g/mol

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

*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)

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Fluid
Colour:	Not available
Odour:	Characteristic
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	158 °C
Vapour pressure at 20 °C:	49 Pa
Vapour pressure at 50 °C:	316,5 Pa (0,32 kPa)
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	848,7 kg/m ³
Relative density at 20 °C:	0,849
Dynamic viscosity at 20 °C:	0,8 cP
Kinematic viscosity at 20 °C:	0,94 mm ² /s
Kinematic viscosity at 40 °C:	<20,5 mm ² /s
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *

Flammability:

Flash Point:	11 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	265 °C
Lower flammability limit:	Not available
Upper flammability limit:	Not available

Particle characteristics:

Median equivalent diameter:	Non-applicable
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9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *

Other safety characteristics:

Surface tension at 20 °C:	Non-applicable *
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*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)

Refraction index: Non-applicable *

*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.

10.2 Chemical stability:

Chemically stable under the 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	Risk of combustion	Avoid direct impact	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, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

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

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

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

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with mutagenic effects. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

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

Based on available data, the classification criteria are not met. However, it does contain substances which are classified as dangerous as a result of a single exposure. 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. However, it does contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Repeated exposure may cause skin dryness or cracking

H- Aspiration hazard:

The consumption of a considerable dose can cause pulmonary damage.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Triethoxyoctylsilane CAS: 2943-75-1 EC: 220-941-2	LD50 oral	5110 mg/kg	Rat
	LD50 dermal	6730 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4	LD50 oral	1491 mg/kg	Rat
	LD50 dermal	4000 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
Dibutyltin Dilaurate CAS: 77-58-7 EC: 201-039-8	LD50 oral	2071 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
methanol CAS: 67-56-1 EC: 200-659-6	LD50 oral	100 mg/kg	Rat
	LD50 dermal	300 mg/kg	Rabbit
	LC50 inhalation	3 mg/L (4 h)	Rat

SECTION 12: ECOLOGICAL INFORMATION

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

12.1 Toxicity:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Acute toxicity:

Identification	Concentration		Species	Genus
	LC50	EC50		
3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4	LC50	Non-applicable		
	EC50	331 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	603 mg/L (72 h)	Scenedesmus subspicatus	Algae
Triethoxyoctylsilane CAS: 2943-75-1 EC: 220-941-2	LC50	>1 - 10 (96 h)		Fish
	EC50	>1 - 10 (48 h)		Crustacean
	EC50	>1 - 10 (72 h)		Algae
Dibutyltin Dilaurate CAS: 77-58-7 EC: 201-039-8	LC50	>0.1 - 1 (96 h)		Fish
	EC50	>0.1 - 1 (48 h)		Crustacean
	EC50	>0.1 - 1 (72 h)		Algae
methanol CAS: 67-56-1 EC: 200-659-6	LC50	15400 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50	12000 mg/L (96 h)	Nitrocra spinipes	Crustacean
	EC50	530 mg/L (168 h)	Microcystis aeruginosa	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
	NOEC	EC50		
Triethoxyoctylsilane CAS: 2943-75-1 EC: 220-941-2	NOEC	Non-applicable		
	NOEC	0.199 mg/L	Daphnia magna	Crustacean
methanol CAS: 67-56-1 EC: 200-659-6	NOEC	15800 mg/L	Oryzias latipes	Fish
	NOEC	122 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
	Parameter	Value	Parameter	Value
3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	54 %
Triethoxyoctylsilane CAS: 2943-75-1 EC: 220-941-2	BOD5	Non-applicable	Concentration	5 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	31,5 %
Dibutyltin Dilaurate CAS: 77-58-7 EC: 201-039-8	BOD5	0 g O2/g	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	50 %
methanol CAS: 67-56-1 EC: 200-659-6	BOD5	Non-applicable	Concentration	100 mg/L
	COD	1,42 g O2/g	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	92 %

12.3 Bioaccumulative potential:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Bioaccumulation potential	
3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4	BCF	1
	Pow Log	0.1
	Potential	Low
Triethoxyoctylsilane CAS: 2943-75-1 EC: 220-941-2	BCF	1890
	Pow Log	1.1
	Potential	Very High
Dibutyltin Dilaurate CAS: 77-58-7 EC: 201-039-8	BCF	31
	Pow Log	3.12
	Potential	Moderate
methanol CAS: 67-56-1 EC: 200-659-6	BCF	3
	Pow Log	-0.77
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Triethoxyoctylsilane CAS: 2943-75-1 EC: 220-941-2	Koc	10000	Henry	0E+0 Pa·m ³ /mol
	Conclusion	Immobile	Dry soil	Non-applicable
	Surface tension	Non-applicable	Moist soil	Non-applicable
methanol CAS: 67-56-1 EC: 200-659-6	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	2,35E-2 N/m (25 °C)	Moist soil	Non-applicable

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances	Dangerous

Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP3 Flammable, HP13 Sensitising, HP8 Corrosive

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) 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-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2021 and RID 2021:

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SECTION 14: TRANSPORT INFORMATION (continued)



- 14.1 UN number:** UN2924
- 14.2 UN proper shipping name:** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Trimethoxy(methyl)silane; 3-aminopropyltriethoxysilane)
- 14.3 Transport hazard class(es):** 3
Labels: 3, 8
- 14.4 Packing group:** II
- 14.5 Environmental hazards:** No
- 14.6 Special precautions for user**
Special regulations: 274
Tunnel restriction code: D/E
Physico-Chemical properties: see section 9
Limited quantities: 1 L
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 39-18:



- 14.1 UN number:** UN2924
- 14.2 UN proper shipping name:** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Trimethoxy(methyl)silane; 3-aminopropyltriethoxysilane)
- 14.3 Transport hazard class(es):** 3
Labels: 3, 8
- 14.4 Packing group:** II
- 14.5 Marine pollutant:** No
- 14.6 Special precautions for user**
Special regulations: 274
EmS Codes: F-E, S-C
Physico-Chemical properties: see section 9
Limited quantities: 1 L
Segregation group: Non-applicable
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2021:



- 14.1 UN number:** UN2924
- 14.2 UN proper shipping name:** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Trimethoxy(methyl)silane; 3-aminopropyltriethoxysilane)
- 14.3 Transport hazard class(es):** 3
Labels: 3, 8
- 14.4 Packing group:** II
- 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:** Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable
 Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable
 Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

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SECTION 15: REGULATORY INFORMATION (continued)

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Contains Dibutyltin Dilaurate

Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
P5c	FLAMMABLE LIQUIDS	5000	50000

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII 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 product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Non-applicable

Texts of the legislative phrases mentioned in section 2:

- H317: May cause an allergic skin reaction.
- H412: Harmful to aquatic life with long lasting effects.
- H318: Causes serious eye damage.
- H304: May be fatal if swallowed and enters airways.
- H225: Highly flammable liquid and vapour.
- H314: Causes severe skin burns and eye damage.

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

CLP Regulation (EC) No 1272/2008:

- Acute Tox. 3: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled.
- Acute Tox. 4: H302 - Harmful if swallowed.
- 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.
- Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
- Eye Irrit. 2: H319 - Causes serious eye irritation.
- Flam. Liq. 2: H225 - Highly flammable liquid and vapour.
- Muta. 2: H341 - Suspected of causing genetic defects.
- Repr. 1B: H360 - May damage fertility or the unborn child.
- Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
- Skin Irrit. 2: H315 - Causes skin irritation.
- Skin Sens. 1: H317 - May cause an allergic skin reaction.
- STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure. (Oral).
- STOT SE 1: H370 - Causes damage to organs.

Classification procedure:

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SECTION 16: OTHER INFORMATION (continued)

Skin Sens. 1: Calculation method
Aquatic Chronic 3: Calculation method
Eye Dam. 1: Calculation method
Asp. Tox. 1: Calculation method
Flam. Liq. 2: Calculation method (2.6.4.3)
Skin Corr. 1B: Calculation method

Advice related to training:

Minimal 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 European and state level, 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 -