

05F - TITAN WATER-BASED SEALING PRIMER

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

- 1.1 Product identifier:** 05F - TITAN WATER-BASED SEALING PRIMER
Other means of identification:
Non-applicable
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Printing
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:**
Industrias Titán, S.A.U.
Pol. Ind. Pratense, calle 114 nº 17-19
08820 El Prat de Llobregat - Barcelona - España
Phone: +34 934 797 494 - Fax: +34 934 797 495
msds@titanlux.es
http://www.titanlux.es
- 1.4 Emergency telephone number:** +34 934 797 494 (7:30-14:30 h.) (working hours)

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.
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
- 2.2 Label elements:**
CLP Regulation (EC) No 1272/2008:
Hazard statements:
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements:
P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P273: Avoid release to the environment.
P501: Dispose of contents/container according to the separated collection system used in your municipality.
Supplementary information:
EUH208: Contains 1,2-benzisothiazol-3(2H)-one, 2,4,7,9-tetramethyldec-5-yne-4,7-diol, Fatty acids, C6-19-branched, cobalt(2+) salts, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). 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 fails to meet PBT/vPvB criteria

** Changes with regards to the previous version

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

- 3.1 Substance:**
Non-applicable
- 3.2 Mixture:**
Chemical description: Aqueous mixture composed of additives, aggregates, pigments and resins
Components:
In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

** Changes with regards to the previous version

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS ** (continued)

Identification	Chemical name/Classification	Concentration
CAS: 126-86-3 EC: 204-809-1 Index: Non-applicable REACH: 01-2119954390-39-XXXX	2,4,7,9-tetramethyldec-5-yne-4,7-diol⁽¹⁾ Regulation 1272/2008 Aquatic Chronic 3: H412; Eye Dam. 1: H318; Skin Sens. 1B: H317 - Danger	Self-classified 0,1 - <0,2 %
CAS: 107-21-1 EC: 203-473-3 Index: 603-027-00-1 REACH: 01-2119456816-28-XXXX	Ethanediol⁽²⁾ Regulation 1272/2008 Acute Tox. 4: H302; STOT RE 2: H373 - Warning	Self-classified 0,1 - <0,2 %
CAS: 68409-81-4 EC: 270-066-5 Index: Non-applicable REACH: Non-applicable	Fatty acids, C6-19-branched, cobalt(2+) salts⁽¹⁾ Regulation 1272/2008 Acute Tox. 4: H302; Aquatic Chronic 2: H411; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning	Self-classified 0,1 - <0,2 %
CAS: 10605-21-7 EC: 234-232-0 Index: 613-048-00-8 REACH: Non-applicable	carbendazim (ISO)⁽¹⁾ Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Muta. 1B: H340; Repr. 1B: H360FD; Skin Sens. 1: H317 - Danger	ATP ATP17 0,01 - <0,02 %
CAS: 34123-59-6 EC: 251-835-4 Index: 006-044-00-7 REACH: Non-applicable	isoproturon (ISO)⁽¹⁾ Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Carc. 2: H351; STOT RE 2: H373 - Warning	ATP ATP13 0,01 - <0,02 %
CAS: 2634-33-5 EC: 220-120-9 Index: 613-088-00-6 REACH: 01-2120761540-60-XXXX	1,2-benzisothiazol-3(2H)-one⁽¹⁾ Regulation 1272/2008 Acute Tox. 4: H302; Aquatic Acute 1: H400; Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	ATP CLP00 0,01 - <0,02 %
CAS: 13463-41-7 EC: 236-671-3 Index: 613-333-00-7 REACH: 01-2119511196-46-XXXX	Pyrithione zinc⁽¹⁾ Regulation 1272/2008 Acute Tox. 2: H330; Acute Tox. 3: H301; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Repr. 1B: H360D; STOT RE 1: H372 - Danger	ATP ATP15 0,01 - <0,02 %
CAS: 112-34-5 EC: 203-961-6 Index: 603-096-00-8 REACH: 01-2119475104-44-XXXX	2-(2-butoxyethoxy)ethanol⁽²⁾ Regulation 1272/2008 Eye Irrit. 2: H319 - Warning	ATP CLP00 <0,01 %
CAS: 55965-84-9 EC: Non-applicable Index: 613-167-00-5 REACH: Non-applicable	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)⁽¹⁾ Regulation 1272/2008 Acute Tox. 2: H310+H330; Acute Tox. 3: H301; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Corr. 1C: H314; Skin Sens. 1A: H317; EUH071 - Danger	ATP ATP13 <0,01 %

⁽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.

** Changes with regards to the previous version

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 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:

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:

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SECTION 4: FIRST AID MEASURES (continued)

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:

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

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

Unsuitable extinguishing media:

Non-applicable

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. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

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.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

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SECTION 7: HANDLING AND STORAGE (continued)

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

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

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on 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.- Technical measures for storage

- Minimum Temp.: 5 °C
- Maximum Temp.: 40 °C
- Maximum time: 36 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)	20 ppm	52 mg/m ³
Ethanediol CAS: 107-21-1 EC: 203-473-3	IOELV (STEL)	40 ppm	104 mg/m ³
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	IOELV (8h)	10 ppm	67,5 mg/m ³
	IOELV (STEL)	15 ppm	101,2 mg/m ³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2,4,7,9-tetramethyldec-5-yne-4,7-diol CAS: 126-86-3 EC: 204-809-1	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	1,5 mg/kg	Non-applicable	0,5 mg/kg	Non-applicable
	Inhalation	5,28 mg/m ³	Non-applicable	1,76 mg/m ³	Non-applicable
Ethanediol CAS: 107-21-1 EC: 203-473-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	106 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	35 mg/m ³
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,966 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	6,81 mg/m ³	Non-applicable
Pyrithione zinc CAS: 13463-41-7 EC: 236-671-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,01 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	Non-applicable
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	83 mg/kg	Non-applicable
	Inhalation	Non-applicable	101,2 mg/m ³	67,5 mg/m ³	67,5 mg/m ³

DNEL (General population):

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2,4,7,9-tetramethyldec-5-yne-4,7-diol CAS: 126-86-3 EC: 204-809-1	Oral	0,75 mg/kg	Non-applicable	0,25 mg/kg	Non-applicable
	Dermal	0,75 mg/kg	Non-applicable	0,25 mg/kg	Non-applicable
	Inhalation	1,29 mg/m ³	Non-applicable	0,43 mg/m ³	Non-applicable
Ethanediol CAS: 107-21-1 EC: 203-473-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	53 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	7 mg/m ³
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,345 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1,2 mg/m ³	Non-applicable
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	Oral	Non-applicable	Non-applicable	5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	50 mg/kg	Non-applicable
	Inhalation	Non-applicable	60,7 mg/m ³	40,5 mg/m ³	40,5 mg/m ³

PNEC:



Identification				
2,4,7,9-tetramethyldec-5-yne-4,7-diol CAS: 126-86-3 EC: 204-809-1	STP	7 mg/L	Fresh water	0,04 mg/L
	Soil	0,028 mg/kg	Marine water	0,004 mg/L
	Intermittent	0,4 mg/L	Sediment (Fresh water)	0,32 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,032 mg/kg
Ethanediol CAS: 107-21-1 EC: 203-473-3	STP	199,5 mg/L	Fresh water	10 mg/L
	Soil	1,53 mg/kg	Marine water	1 mg/L
	Intermittent	10 mg/L	Sediment (Fresh water)	37 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	3,7 mg/kg
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	STP	1,03 mg/L	Fresh water	0,00403 mg/L
	Soil	3 mg/kg	Marine water	0,000403 mg/L
	Intermittent	0,0011 mg/L	Sediment (Fresh water)	0,0499 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,00499 mg/kg
Pyrrithione zinc CAS: 13463-41-7 EC: 236-671-3	STP	0,01 mg/L	Fresh water	0,00009 mg/L
	Soil	1,02 mg/kg	Marine water	0,00009 mg/L
	Intermittent	Non-applicable	Sediment (Fresh water)	0,009 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,009 mg/kg
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	STP	200 mg/L	Fresh water	1,1 mg/L
	Soil	0,32 mg/kg	Marine water	0,11 mg/L
	Intermittent	11 mg/L	Sediment (Fresh water)	4,4 mg/kg
	Oral	0,056 g/kg	Sediment (Marine water)	0,44 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



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Compulsory use of face mask	Filter mask for particles	 CAT III	EN 149:2001+A1:2009	Replace when an increase in resistance to breathing is observed.

C.- Specific protection for the hands

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)


Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Linear low-density polyethylene (LLDPE), Breakthrough time: > 480 min, Thickness: 0.062 mm)		EN 420:2004+A1:2010	Replace the gloves at any sign of deterioration.

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	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.		EN 166:2002 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
	Work clothing			Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes		EN ISO 20347:2012	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

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):	0,02 % weight
V.O.C. density at 20 °C:	30 kg/m ³ (30 g/L)
Average carbon number:	12
Average molecular weight:	130 g/mol

With regard to Directive 2004/42/EC, this product which is ready to use has the following characteristics:

V.O.C. density at 20 °C:	29 kg/m ³ (29 g/L)
EU limit for the product (Cat. A.G):	30 g/L (2010)
Components:	Non-applicable

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

*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)

Physical state at 20 °C:	Liquid
Appearance:	Viscous
Colour:	White
Odour:	Not available
Odour threshold:	Non-applicable *
Volatility:	
Boiling point at atmospheric pressure:	102 °C
Vapour pressure at 20 °C:	2322 Pa
Vapour pressure at 50 °C:	12236,11 Pa (12,24 kPa)
Evaporation rate at 20 °C:	Non-applicable *
Product description:	
Density at 20 °C:	1370 - 1430 kg/m ³
Relative density at 20 °C:	1,37 - 1,43
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
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:	Water miscible
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Flammability:	
Flash Point:	Non Flammable (>60 °C)
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	204 °C
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *
Particle characteristics:	
Median equivalent diameter:	Non-applicable

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 *
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

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SECTION 10: STABILITY AND REACTIVITY (continued)

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 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	Not applicable	Not applicable	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

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health .

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: 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.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous 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: 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. However, it does 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: Titanium dioxide (2B); Talc (3); Fatty acids, C6-19-branched, cobalt(2+) salts (2B)
- 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 hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

** Changes with regards to the previous version

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SECTION 11: TOXICOLOGICAL INFORMATION ** (continued)

- 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. However, it does contain substances which are classified as dangerous due to repetitive exposure. 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:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
carbendazim (ISO) CAS: 10605-21-7 EC: 234-232-0	LD50 oral	6400 mg/kg	Rat
	LD50 dermal	8500 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	LD50 oral	500 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Pyrithione zinc CAS: 13463-41-7 EC: 236-671-3	LD50 oral	221 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	0,14 mg/L (4 h)	Rat
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9 EC: Non-applicable	LD50 oral	64 mg/kg	Rat
	LD50 dermal	87,12 mg/kg	Rabbit
	LC50 inhalation	0,33 mg/L (4 h)	Rat

** Changes with regards to the previous version

** Changes with regards to the previous version

05F - TITAN WATER-BASED SEALING PRIMER
SECTION 12: ECOLOGICAL INFORMATION **

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

12.1 Toxicity:
Acute toxicity:

Identification	Concentration	Species	Genus
2,4,7,9-tetramethyldec-5-yne-4,7-diol CAS: 126-86-3 EC: 204-809-1	LC50 >10 - 100 (96 h)		Fish
	EC50 >10 - 100 (48 h)		Crustacean
	EC50 >10 - 100 (72 h)		Algae
Ethanediol CAS: 107-21-1 EC: 203-473-3	LC50 53000 mg/L (96 h)	Pimephales promelas	Fish
	EC50 51000 mg/L (48 h)	Daphnia magna	Crustacean
	EC50 24000 mg/L (168 h)	Selenastrum capricornutum	Algae
Fatty acids, C6-19-branched, cobalt(2+) salts CAS: 68409-81-4 EC: 270-066-5	LC50 >1 - 10 (96 h)		Fish
	EC50 >1 - 10 (48 h)		Crustacean
	EC50 >1 - 10 (72 h)		Algae
carbendazim (ISO) CAS: 10605-21-7 EC: 234-232-0	LC50 0,3 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50 0,22 mg/L (48 h)	Daphnia magna	Crustacean
	EC50 Non-applicable		
isoproturon (ISO) CAS: 34123-59-6 EC: 251-835-4	LC50 >0.1 - 1 (96 h)		Fish
	EC50 >0.1 - 1 (48 h)		Crustacean
	EC50 >0.1 - 1 (72 h)		Algae
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	LC50 >0.1 - 1 (96 h)		Fish
	EC50 >0.1 - 1 (48 h)		Crustacean
	EC50 >0.1 - 1 (72 h)		Algae
Pyrethione zinc CAS: 13463-41-7 EC: 236-671-3	LC50 0,003 mg/L (96 h)	Pimephales promelas	Fish
	EC50 0,008 mg/L (48 h)	Daphnia magna	Crustacean
	EC50 Non-applicable		
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	LC50 1300 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50 2850 mg/L (24 h)	Daphnia magna	Crustacean
	EC50 53 mg/L (192 h)	Microcystis aeruginosa	Algae
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9 EC: Non-applicable	LC50 >0.1 - 1 (96 h)		Fish
	EC50 >0.1 - 1 (48 h)		Crustacean
	EC50 >0.1 - 1 (72 h)		Algae

Chronic toxicity:

Identification	Concentration	Species	Genus
Pyrethione zinc CAS: 13463-41-7 EC: 236-671-3	NOEC Non-applicable		
	NOEC 0,022 mg/L	Daphnia magna	Crustacean

** Changes with regards to the previous version

05F - TITAN WATER-BASED SEALING PRIMER
SECTION 12: ECOLOGICAL INFORMATION ** (continued)
12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
	Parameter	Value	Parameter	Value
Ethanediol CAS: 107-21-1 EC: 203-473-3	BOD5	0,47 g O2/g	Concentration	100 mg/L
	COD	1,29 g O2/g	Period	14 days
	BOD5/COD	0,36	% Biodegradable	90 %
carbendazim (ISO) CAS: 10605-21-7 EC: 234-232-0	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	0 %
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	0 %
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	BOD5	0,25 g O2/g	Concentration	100 mg/L
	COD	2,08 g O2/g	Period	28 days
	BOD5/COD	0,12	% Biodegradable	92 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
	Parameter	Value
Ethanediol CAS: 107-21-1 EC: 203-473-3	BCF	10
	Pow Log	-1.36
	Potential	Low
carbendazim (ISO) CAS: 10605-21-7 EC: 234-232-0	BCF	4
	Pow Log	1.52
	Potential	Low
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	BCF	2
	Pow Log	1.45
	Potential	Low
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	BCF	0.46
	Pow Log	0.56
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Parameter	Value	Parameter	Value
Ethanediol CAS: 107-21-1 EC: 203-473-3	Koc	0	Henry	1,327E-1 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	4,989E-2 N/m (25 °C)	Moist soil	No
carbendazim (ISO) CAS: 10605-21-7 EC: 234-232-0	Koc	350	Henry	2,128E-6 Pa·m ³ /mol
	Conclusion	Moderate	Dry soil	Non-applicable
	Surface tension	Non-applicable	Moist soil	Non-applicable

** Changes with regards to the previous version

05F - TITAN WATER-BASED SEALING PRIMER

SECTION 12: ECOLOGICAL INFORMATION ** (continued)

Identification	Absorption/desorption		Volatility	
2-(2-butoxyethoxy)ethanol	Koc	48	Henry	7,2E-9 Pa·m ³ /mol
CAS: 112-34-5	Conclusion	Very High	Dry soil	No
EC: 203-961-6	Surface tension	3,395E-2 N/m (25 °C)	Moist soil	No

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

*** Changes with regards to the previous version*

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

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. Waste should not be disposed of to drains. 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

This product is not regulated for transport (ADR/RID,IMDG,IATA)

SECTION 15: REGULATORY INFORMATION

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

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05F - TITAN WATER-BASED SEALING PRIMER**SECTION 15: REGULATORY INFORMATION (continued)**

Regulation (EC) No 528/2012: contains a preservative to protect the initial properties of the treated article. Contains 1,2-benzisothiazol-3(2H)-one, Pyriithione zinc, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1), carbendazim (ISO), isoproturon (ISO), 3-iodo-2-propynyl Butylcarbamate, Terbutryn.

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

Article 95, REGULATION (EU) No 528/2012: carbendazim (ISO) (Product-type 7, 10) ; isoproturon (ISO) (Product-type 7, 10) ; 1,2-benzisothiazol-3(2H)-one (Product-type 2, 6, 9, 11, 12, 13) ; Pyriithione zinc (Product-type 2, 6, 7, 9, 10, 21) ; reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (Product-type 2, 4, 6, 11, 12, 13)

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Contains carbendazim (ISO) ; isoproturon (ISO)

Seveso III:

Non-applicable

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.:

COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12):

- New declared substances
 - Fatty acids, C6-19-branched, cobalt(2+) salts (68409-81-4)
 - carbendazim (ISO) (10605-21-7)
 - Pyriithione zinc (13463-41-7)
 - 2-(2-butoxyethoxy)ethanol (112-34-5)
 - reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)
- Removed substances
 - trizinc bis(orthophosphate) (7779-90-0)
 - Neodecanoic acid, cobalt salt (27253-31-2)
 - Ethylamine--boron trifluoride (75-23-0)
 - Wollastonite (Ca(SiO3)) (13983-17-0)

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

- Supplementary information
- Substances contained in EUH208:
 - New declared substances
 - Fatty acids, C6-19-branched, cobalt(2+) salts (68409-81-4)
 - reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)
 - Removed substances
 - Neodecanoic acid, cobalt salt (27253-31-2)

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05F - TITAN WATER-BASED SEALING PRIMER**SECTION 16: OTHER INFORMATION (continued)****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

CLP Regulation (EC) No 1272/2008:

Acute Tox. 2: H310+H330 - Fatal in contact with skin or if inhaled.

Acute Tox. 2: H330 - Fatal if inhaled.

Acute Tox. 3: H301 - Toxic if swallowed.

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.

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

Carc. 2: H351 - Suspected of causing cancer.

Eye Dam. 1: H318 - Causes serious eye damage.

Eye Irrit. 2: H319 - Causes serious eye irritation.

Muta. 1B: H340 - May cause genetic defects.

Repr. 1B: H360D - May damage the unborn child.

Repr. 1B: H360FD - May damage fertility. May damage the unborn child.

Skin Corr. 1C: 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.

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

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

STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral).

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

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 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 -