

This document contains the following safety data sheets:





This SDS is an English translation of Regulation (EU)  $n^{o}$  2015/830, without any country-specific legislation

#### **X22 - EPOXY PRIMER WITH HIGH ZINC CONTENT**

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

#### 1.1 Product identifier:

X22 - EPOXY PRIMER WITH HIGH ZINC CONTENT

#### 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 Acute 1: Hazardous to the aquatic environment, acute hazard, Category 1, H400 Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard, Category 1, H410

Eye Dam. 1: Serious eye damage, Category 1, H318 Flam. Liq. 3: Flammable liquids, Category 3, H226 Skin Irrit. 2: Skin irritation, Category 2, H315

Water-react. 1: Substances and mixtures giving off flammable gases when wet, Category 1, H260

### 2.2 Label elements:

#### CLP Regulation (EC) No 1272/2008:

#### Danger







# Hazard statements:

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

Eye Dam. 1: H318 - Causes serious eye damage. Flam. Liq. 3: H226 - Flammable liquid and vapour.

Skin Irrit. 2: H315 - Causes skin irritation.

Water-react. 1: H260 - In contact with water releases flammable gases which may ignite spontaneously.

#### **Precautionary statements:**

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P231+P232: Handle and store contents under inert gas. Protect from moisture.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302+P335+P334: IF ON SKIN: Brush off loose particles from skin. Immerse in cool water.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a poison center/doctor.

P370+P378: In case of fire: Use ABC powder extinguisher to extinguish.

#### **Supplementary information:**

EUH205: Contains epoxy constituents. May produce an allergic reaction.

# Substances that contribute to the classification

2-methylpropan-1-ol

#### 2.3 Other hazards:

Product fails to meet PBT/vPvB criteria



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# SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substance:

Non-applicable

#### 3.2 Mixture:

Chemical description: Mixture composed of additives, aggregates, pigments and resins in solvents

#### **Components:**

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

	Identification		Chemical name/Classification			
CAS:	7440-66-6	Zinc powder - zinc dı	Zinc powder - zinc dust (pyrophoric) <sup>(1)</sup> ATP CLP00			
EC: Index: REACH:	231-175-3 030-001-00-1 01-2119467174-37- XXXX	Regulation 1272/2008	Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Pyr. Sol. 1: H250; Water-react. 1: H260 - Danger	<b>♦</b>	25 - <50 %	
CAS:	1314-13-2	zinc oxide(1)		ATP CLP00		
EC: Index: REACH:	215-222-5 030-013-00-7 01-2119463881-32- XXXX	Regulation 1272/2008	Aquatic Acute 1: H400; Aquatic Chronic 1: H410 - Warning	<u>\.</u>	25 - <50 %	
CAS:	1330-20-7	Xylene <sup>(1)</sup>		ATP CLP00		
EC: Index: REACH:	215-535-7 601-022-00-9 : 01-2119488216-32- XXXX	Regulation 1272/2008	Acute Tox. 4: H312+H332; Flam. Liq. 3: H226; Skin Irrit. 2: H315 - Warning	<b>(!)</b>	7,5 - <10 %	
CAS:	78-83-1	2-methylpropan-1-o	2-methylpropan-1-ol <sup>(1)</sup> ATP CLP00			
EC: Index: REACH:	201-148-0 603-108-00-1 01-2119484609-23- XXXX	Regulation 1272/2008	Eye Dam. 1: H318; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H335; STOT SE 3: H336 - Danger	<u>(1)</u>	7,5 - <10 %	

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

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:

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:

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:

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:

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**



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#### **X22 - EPOXY PRIMER WITH HIGH ZINC CONTENT**

# SECTION 5: FIREFIGHTING MEASURES (continued)

#### 5.1 Extinguishing media:

#### Suitable extinguishing media:

In case of fire: Use D powder extinguisher to extinguish.

#### Unsuitable extinguishing media:

WARNING! In contact with water releases flammable gases which may ignite spontaneously. NEVER USE WATER TO EXTINGUISH THE FIRE.

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

Product that reacts with water producing extremely flammable gases.

#### 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:

AVOID CONTACT WITH WATER. Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those who do not have 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.

#### 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:

DO NOT USE WATER TO CLEAN.

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.- 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

AVOID CONTACT WITH WATER. Transfer in well ventilated areas, preferably through localised extraction. Fully control sources of ignition (mobile phones, sparks,...) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres within containers, applying where possible inertization systems. 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 security and health of the 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.



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# SECTION 7: HANDLING AND STORAGE (continued)

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			
Xylene	IOELV (8h)	50 ppm	221 mg/m <sup>3</sup>	
CAS: 1330-20-7	IOELV (STEL)	100 ppm	442 mg/m <sup>3</sup>	

#### **DNEL (Workers):**

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
zinc oxide	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 1314-13-2	Dermal	Non-applicable	Non-applicable	83 mg/kg	Non-applicable
EC: 215-222-5	Inhalation	Non-applicable	Non-applicable	5 mg/m <sup>3</sup>	0,5 mg/m <sup>3</sup>
Xylene	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 1330-20-7	Dermal	Non-applicable	Non-applicable	212 mg/kg	Non-applicable
EC: 215-535-7	Inhalation	442 mg/m³	442 mg/m <sup>3</sup>	221 mg/m <sup>3</sup>	221 mg/m <sup>3</sup>
2-methylpropan-1-ol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 78-83-1	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 201-148-0	Inhalation	Non-applicable	Non-applicable	Non-applicable	310 mg/m <sup>3</sup>

#### **DNEL (General population):**

PNEC:

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
zinc oxide	Oral	Non-applicable	Non-applicable	0,83 mg/kg	Non-applicable
CAS: 1314-13-2	Dermal	Non-applicable	Non-applicable	83 mg/kg	Non-applicable
EC: 215-222-5	Inhalation	Non-applicable	Non-applicable	2,5 mg/m <sup>3</sup>	Non-applicable
Xylene	Oral	Non-applicable	Non-applicable	12,5 mg/kg	Non-applicable
CAS: 1330-20-7	Dermal	Non-applicable	Non-applicable	125 mg/kg	Non-applicable
EC: 215-535-7	Inhalation	260 mg/m <sup>3</sup>	260 mg/m <sup>3</sup>	65,3 mg/m <sup>3</sup>	65,3 mg/m <sup>3</sup>
2-methylpropan-1-ol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 78-83-1	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 201-148-0	Inhalation	Non-applicable	Non-applicable	Non-applicable	55 mg/m <sup>3</sup>

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# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
zinc oxide	STP	0,1 mg/L	Fresh water	0,0206 mg/L
CAS: 1314-13-2	Soil	35,6 mg/kg	Marine water	0,0061 mg/L
EC: 215-222-5	Intermittent	Non-applicable	Sediment (Fresh water)	117,8 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	56,5 mg/kg
Xylene	STP	6,58 mg/L	Fresh water	0,327 mg/L
CAS: 1330-20-7	Soil	2,31 mg/kg	Marine water	0,327 mg/L
EC: 215-535-7	Intermittent	0,327 mg/L	Sediment (Fresh water)	12,46 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	12,46 mg/kg
2-methylpropan-1-ol	STP	10 mg/L	Fresh water	0,4 mg/L
CAS: 78-83-1	Soil	0,076 mg/kg	Marine water	0,04 mg/L
EC: 201-148-0	Intermittent	11 mg/L	Sediment (Fresh water)	1,56 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,156 mg/kg

#### 8.2 Exposure controls:

A.- General security and hygiene measures in the work place

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 resistence to breathing is observed.

### C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory hand protection	Protective gloves against minor risks	CATI		Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+A1:2018

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	Panoramic glasses against splash/projections.	CATII	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
Mandatory complete body protection	Antistatic and fireproof protective clothing	CAT III	EN 1149-1:2006 EN 1149-2:1997 EN 1149-3:2004 EN 168:2002 EN ISO 14116:2015 EN 1149-5:2018	Limited protection against flames.
Mandatory foot protection	Safety footwear with antistatic and heat resistant properties	CAT III	EN ISO 13287:2013 EN ISO 20345:2011	Replace boots at any sign of deterioration.

#### F.- Additional emergency measures



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#### **X22 - EPOXY PRIMER WITH HIGH ZINC CONTENT**

# 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

# Volatile organic compounds:

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

V.O.C. (Supply): 18,9 % weight

V.O.C. density at 20 °C: 523,53 kg/m³ (523,53 g/L)

Average carbon number: 6,1

Average molecular weight: 90,91 g/mol

#### 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: Viscous
Colour: Grey

Odour: Characteristic
Odour threshold: Non-applicable \*

Volatility:

Boiling point at atmospheric pressure: 121 °C
Vapour pressure at 20 °C: 1105 Pa

Vapour pressure at 50 °C: Non-applicable \*
Evaporation rate at 20 °C: Non-applicable \*

**Product description:** 

Density at 20 °C: 2470 - 3070 kg/m<sup>3</sup>

Relative density at 20 °C: 2,47 - 3,07 Dynamic viscosity at 20 °C: Non-applicable \* Kinematic viscosity at 20 °C: Non-applicable \* Kinematic viscosity at 40 °C: >20,5 cSt 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:

Solubility in water at 20° c.

Solubility properties:

Non-applicable \*

Non-applicable \*

Melting point/freezing point:

Explosive properties:

Non-applicable \*

Non-applicable \*

Non-applicable \*

Non-applicable \*

\*Non-applicable \*

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#### **X22 - EPOXY PRIMER WITH HIGH ZINC CONTENT**

# SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Flammability:

Flash Point: >44 °C

Heat of combustion: Non-applicable \* Flammability (solid, gas): Non-applicable \*

Autoignition temperature: 427 °C
Lower flammability limit: Not available
Upper flammability limit: Not available

**Explosive:** 

Lower explosive limit: Non-applicable \*
Upper explosive limit: Non-applicable \*

9.2 Other information:

Surface tension at 20 °C:

Refraction index:

Non-applicable \*

Non-applicable \*

# **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	Precaution	Risk of combustion	Avoid direct impact	In contact with water releases flammable gases which may ignite spontaneously

# 10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	In contact with water releases flammable gases which may ignite spontaneously	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):

<sup>\*</sup>Not relevant due to the nature of the product, not providing information property of its hazards.



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#### **X22 - EPOXY PRIMER WITH HIGH ZINC CONTENT**

#### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- 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: 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.
- C- Contact with the skin and the eyes (acute effect):
  - Contact with the skin: Produces skin inflammation.
  - 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: Xylene (3)

- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous 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 dangerous 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 dangerous with sensitising effects. For more information see section 3.
  - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- F- Specific target organ toxicity (STOT) single exposure:

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.

- 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 dangerous 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 dangerous 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 dangerous for this effect. For more information see section 3.

#### Other information:

Non-applicable

#### Specific toxicology information on the substances:

Identification	Acut	Genus	
2-methylpropan-1-ol	LD50 oral	3350 mg/kg	Rat
CAS: 78-83-1	LD50 dermal	2460 mg/kg	Rabbit
EC: 201-148-0	LC50 inhalation	24,6 mg/L (4 h)	Rat
Xylene	LD50 oral	2100 mg/kg	Rat
CAS: 1330-20-7	LD50 dermal	1100 mg/kg	Rat
EC: 215-535-7	LC50 inhalation	11 mg/L (4 h) (ATEi)	
zinc oxide	LD50 oral	7950 mg/kg	Mouse
CAS: 1314-13-2	LD50 dermal	Non-applicable	
EC: 215-222-5	LC50 inhalation	Non-applicable	

## **SECTION 12: ECOLOGICAL INFORMATION**

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



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# SECTION 12: ECOLOGICAL INFORMATION (continued)

# 12.1 Toxicity:

Identification		Acute toxicity	Species	Genus
Zinc powder - zinc dust (pyrophoric)	LC50	>0.1 - 1 mg/L (96 h)		Fish
CAS: 7440-66-6	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
EC: 231-175-3	EC50	>0.1 - 1 mg/L (72 h)		Algae
zinc oxide	LC50	0.82 mg/L (96 h)	Oncorhynchus kisutch	Fish
CAS: 1314-13-2	EC50	3.4 mg/L (48 h)	Daphnia magna	Crustacean
EC: 215-222-5	EC50	Non-applicable		
Xylene	LC50	13.5 mg/L (96 h)	Oncorhynchus mykiss	Fish
CAS: 1330-20-7	EC50	3.4 mg/L (48 h)	Ceriodaphnia dubia	Crustacean
EC: 215-535-7	EC50	10 mg/L (72 h)	Skeletonema costatum	Algae
2-methylpropan-1-ol	LC50	2030 mg/L (96 h)	Carassius auratus	Fish
CAS: 78-83-1	EC50	1439 mg/L (48 h)	Daphnia magna	Crustacean
EC: 201-148-0	EC50	1250 mg/L (48 h)	Scenedesmus subspicatus	Algae

#### 12.2 Persistence and degradability:

Identification	Degradability		Biodegradability		
Xylene	BOD5	Non-applicable	Concentration	Non-applicable	
CAS: 1330-20-7	COD	Non-applicable	Period	28 days	
EC: 215-535-7	BOD5/COD	Non-applicable	% Biodegradable	88 %	
2-methylpropan-1-ol	BOD5	0,4 g O2/g	Concentration	100 mg/L	
CAS: 78-83-1	COD	2,41 g O2/g	Period	14 days	
EC: 201-148-0	BOD5/COD	0,17	% Biodegradable	90 %	

# 12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential		
Xylene	BCF	9	
CAS: 1330-20-7	Pow Log	2.77	
EC: 215-535-7	Potential	Low	
2-methylpropan-1-ol	BCF	3	
CAS: 78-83-1	Pow Log	0.76	
EC: 201-148-0	Potential	Low	

# 12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Xylene	Koc	202	Henry	524,86 Pa·m³/mol
CAS: 1330-20-7	Conclusion	Moderate	Dry soil	Yes
EC: 215-535-7	Surface tension	Non-applicable	Moist soil	Yes
2-methylpropan-1-ol	Koc	Non-applicable	Henry	Non-applicable
CAS: 78-83-1	Conclusion	Non-applicable	Dry soil	Non-applicable
EC: 201-148-0	Surface tension	2,378E-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, HP3 Flammable



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#### **X22 - EPOXY PRIMER WITH HIGH ZINC CONTENT**

# SECTION 13: DISPOSAL CONSIDERATIONS (continued)

#### 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 recommended 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 2019 and RID 2019:



14.1 UN number: UN1263 14.2 UN proper shipping name: PAINT 14.3 Transport hazard class(es): 3

3 14.4 Packing group: III 14.5 Environmental hazards: Yes

14.6 Special precautions for user

Special regulations: 163, 367, 650

Tunnel restriction code: D/E

Physico-Chemical properties: see section 9

Limited quantities: 5 I

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:



UN1263 14.1 UN number: 14.2 UN proper shipping name: **PAINT** 14.3 Transport hazard class(es): Labels: 3

14.4 Packing group: III 14.5 Marine pollutant: Yes

14.6 Special precautions for user

Special regulations: 223, 955, 163, 367

EmS Codes: F-E, S-E Physico-Chemical properties: see section 9

5 L Limited quantities:

Segregation group: Non-applicable 14.7 Transport in bulk according Non-applicable

to Annex II of Marpol and

the IBC Code:

# Transport of dangerous goods by air:

With regard to IATA/ICAO 2020:

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#### SECTION 14: TRANSPORT INFORMATION (continued)

Labels:



**14.1 UN number:** UN1263 **14.2 UN proper shipping name:** PAINT

14.2 UN proper shipping name: PAIN14.3 Transport hazard class(es): 3

14.4 Packing group: III14.5 Environmental hazards: Yes

14.6 Special precautions for user

Physico-Chemical properties: see section 9 **Transport in bulk according** Non-applicable

14.7 Transport in bulk according to Annex II of Marpol and

the IBC Code:

#### **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

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: Non-applicable

#### Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
P5c	FLAMMABLE LIQUIDS	5000	50000
E1	ENVIRONMENTAL HAZARDS	100	200
02	OTHER HAZARDS	100	500

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

Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:

- metallic glitter intended mainly for decoration,
- artificial snow and frost,
- "whoopee" cushions,
- silly string aerosols,
- imitation excrement,
- horns for parties,
- decorative flakes and foams,
- artificial cobwebs,
- stink bombs.

Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:

'For professional users only'.

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.



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#### **X22 - EPOXY PRIMER WITH HIGH ZINC CONTENT**

#### **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:

H315: Causes skin irritation.

H318: Causes serious eye damage.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

H260: In contact with water releases flammable gases which may ignite spontaneously.

H226: Flammable liquid and vapour.

#### 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. 4: H312+H332 - Harmful in contact with skin or if inhaled.

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

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

Eye Dam. 1: H318 - Causes serious eye damage. Flam. Liq. 3: H226 - Flammable liquid and vapour.

Pyr. Sol. 1: H250 - Catches fire spontaneously if exposed to air.

Skin Irrit. 2: H315 - Causes skin irritation.

STOT SE 3: H335 - May cause respiratory irritation. STOT SE 3: H336 - May cause drowsiness or dizziness.

Water-react. 1: H260 - In contact with water releases flammable gases which may ignite spontaneously.

#### Classification procedure:

Skin Irrit. 2: Calculation method Eye Dam. 1: Calculation method Aquatic Acute 1: Calculation method Aquatic Chronic 1: Calculation method Flam. Liq. 3: Calculation method (2.6.4.3)

#### 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: 5-day biochemical oxygen demand

BCF: Bioconcentration factor LD50: Lethal Dose 50

LC50: Lethal Concentration 50 EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient Koc: Partition coefficient of organic carbon

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.



#### This SDS is an English translation of Regulation (EU) no 2015/830, without any country-specific legislation

# X229901 - HARDENER EPOXY PRIMER WITH HIGH ZINC CONTENT

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

#### 1.1 Product identifier:

X229901 - HARDENER EPOXY PRIMER WITH HIGH ZINC CONTENT

#### Other means of identification:

Non-applicable

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

Relevant uses: Hardener for coatings

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.

Eye Dam. 1: Serious eye damage, Category 1, H318 Flam. Liq. 3: Flammable liquids, Category 3, H226 Skin Irrit. 2: Skin irritation, Category 2, H315

#### 2.2 Label elements:

#### CLP Regulation (EC) No 1272/2008:

#### Danger





**Precautionary statements:** 

# Hazard statements:

Eye Dam. 1: H318 - Causes serious eye damage. Flam. Liq. 3: H226 - Flammable liquid and vapour.

# Skin Irrit. 2: H315 - Causes skin irritation.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a poison center/doctor.

P370+P378: In case of fire: Use ABC powder extinguisher to extinguish.

P403+P235: Store in a well-ventilated place. Keep cool.

P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

# Substances that contribute to the classification

butan-1-ol; 2-methylpropan-1-ol

#### 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:

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# X229901 - HARDENER EPOXY PRIMER WITH HIGH ZINC CONTENT

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

Chemical description: Mixture composed of additives in solvents

Components:

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

	Identification		Chemical name/Classification			
CAS:		Xylene <sup>(1)</sup>		ATP CLP00		
EC: Index: REACH:	215-535-7 601-022-00-9 01-2119488216-32- XXXX	Regulation 1272/2008	Acute Tox. 4: H312+H332; Flam. Liq. 3: H226; Skin Irrit. 2: H315 - Warning	<b>(1)</b>	10 - <12,5 %	
CAS:		butan-1-ol <sup>(1)</sup>		ATP CLP00		
EC: Index: REACH:	200-751-6 603-004-00-6 01-2119484630-38- XXXX	Regulation 1272/2008	Acute Tox. 4: H302; Eye Dam. 1: H318; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H335; STOT SE 3: H336 - Danger		7,5 - <10 %	
CAS:	78-83-1	2-methylpropan-1-o	(1)	ATP CLP00		
EC: Index: REACH:	201-148-0 603-108-00-1 01-2119484609-23- XXXX	Regulation 1272/2008	Eye Dam. 1: H318; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H335; STOT SE 3: H336 - Danger		2 - <2,5 %	

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

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:

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:

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:

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:

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:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO<sub>2</sub>).

#### Unsuitable extinguishing media:

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



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# X229901 - HARDENER EPOXY PRIMER WITH HIGH ZINC CONTENT

#### SECTION 5: FIREFIGHTING MEASURES (continued)

#### 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:

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.

#### 6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

#### 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.- 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

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

#### 7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 5 °C



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# X229901 - HARDENER EPOXY PRIMER WITH HIGH ZINC CONTENT

# SECTION 7: HANDLING AND STORAGE (continued)

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	Occupa	ational exposure lir	nits
Xylene	IOELV (8h)	50 ppm	221 mg/m <sup>3</sup>
CAS: 1330-20-7 EC: 215-535-7	IOELV (STEL)	100 ppm	442 mg/m <sup>3</sup>

#### **DNEL (Workers):**

		Short exposure		Long e	xposure
Identification		Systemic	Local	Systemic	Local
Xylene	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 1330-20-7	Dermal	Non-applicable	Non-applicable	212 mg/kg	Non-applicable
EC: 215-535-7	Inhalation	442 mg/m <sup>3</sup>	442 mg/m <sup>3</sup>	221 mg/m <sup>3</sup>	221 mg/m <sup>3</sup>
2-methylpropan-1-ol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 78-83-1	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 201-148-0	Inhalation	Non-applicable	Non-applicable	Non-applicable	310 mg/m <sup>3</sup>

#### **DNEL (General population):**

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
Xylene	Oral	Non-applicable	Non-applicable	12,5 mg/kg	Non-applicable
CAS: 1330-20-7	Dermal	Non-applicable	Non-applicable	125 mg/kg	Non-applicable
EC: 215-535-7	Inhalation	260 mg/m <sup>3</sup>	260 mg/m <sup>3</sup>	65,3 mg/m <sup>3</sup>	65,3 mg/m <sup>3</sup>
2-methylpropan-1-ol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 78-83-1	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 201-148-0	Inhalation	Non-applicable	Non-applicable	Non-applicable	55 mg/m <sup>3</sup>

#### PNEC:

Identification				
Xylene	STP	6,58 mg/L	Fresh water	0,327 mg/L
CAS: 1330-20-7	Soil	2,31 mg/kg	Marine water	0,327 mg/L
EC: 215-535-7	Intermittent	0,327 mg/L	Sediment (Fresh water)	12,46 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	12,46 mg/kg
2-methylpropan-1-ol	STP	10 mg/L	Fresh water	0,4 mg/L
CAS: 78-83-1	Soil	0,076 mg/kg	Marine water	0,04 mg/L
EC: 201-148-0	Intermittent	11 mg/L	Sediment (Fresh water)	1,56 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,156 mg/kg

#### 8.2 Exposure controls:

A.- General security and hygiene measures in the work place

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.

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# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory hand protection	Protective gloves against minor risks	CATI		Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+ A1:2010 and EN ISO 374-1:2016+A1:2018

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	Panoramic glasses against splash/projections.	CATII	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

Pictogra	am	PPE	Labelling	CEN Standard	Remarks
Mandatory co body prote	omplete	Antistatic and fireproof protective clothing	CAT III	EN 1149-1:2006 EN 1149-2:1997 EN 1149-3:2004 EN 168:2002 EN ISO 14116:2015 EN 1149-5:2018	Limited protection against flames.
Mandatory protecti		Safety footwear with antistatic and heat resistant properties	CAT III	EN ISO 13287:2013 EN ISO 20345:2011	Replace boots at any sign of deterioration.

#### F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	<b>*</b> T	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011
Emergency shower		Eyewash stations	

#### **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): 34,2 % weight

V.O.C. density at 20 °C: 324,9 kg/m³ (324,9 g/L)

Average carbon number: 5,96

Average molecular weight: 89,84 g/mol

# 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

 ${}^{*}$ 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)

Appearance: Viscous Colour: Colourless Odour: Characteristic Odour threshold: Non-applicable \*

Volatility:

170 °C Boiling point at atmospheric pressure: Vapour pressure at 20 °C: 175 Pa

Vapour pressure at 50 °C: 1077,59 Pa (1,08 kPa) Evaporation rate at 20 °C: Non-applicable \*

**Product description:** 

Density at 20 °C: 850 - 1050 kg/m<sup>3</sup> Relative density at 20 °C: 0,85 - 1,05 Dynamic viscosity at 20 °C: 33,49 cP Kinematic viscosity at 20 °C: 33,89 cSt Kinematic viscosity at 40 °C: >20,5 cSt Concentration: Non-applicable \* pH: Non-applicable \* Non-applicable \* Vapour density at 20 °C: Partition coefficient n-octanol/water 20 °C: Non-applicable \*

Solubility in water at 20 °C:

Solubility properties: Non-applicable \* Decomposition temperature: Non-applicable \* Melting point/freezing point: Non-applicable \* Explosive properties: Non-applicable \* Non-applicable \* Oxidising properties:

Flammability:

Flash Point: >33 °C

Heat of combustion: Non-applicable \* Flammability (solid, gas): Non-applicable \*

343 °C Autoignition temperature: Not available Lower flammability limit: Not available Upper flammability limit:

**Explosive:** 

Lower explosive limit: Non-applicable \* Upper explosive limit: Non-applicable \*

9.2 Other information:

> 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

#### 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.

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# X229901 - HARDENER EPOXY PRIMER WITH HIGH ZINC CONTENT

#### SECTION 10: STABILITY AND REACTIVITY (continued)

#### 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: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- 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: 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.
- C- Contact with the skin and the eyes (acute effect):
  - Contact with the skin: Produces skin inflammation.
  - 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: Xylene (3)
  - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous 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 dangerous 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 dangerous with sensitising effects. For more information see section 3.
  - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- F- Specific target organ toxicity (STOT) single exposure:

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.

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



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# X229901 - HARDENER EPOXY PRIMER WITH HIGH ZINC CONTENT

# SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- 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 dangerous 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 dangerous 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 dangerous for this effect. For more information see section 3.

#### Other information:

Non-applicable

#### Specific toxicology information on the substances:

Identification	Acı	Acute toxicity		
2-methylpropan-1-ol	LD50 oral	3350 mg/kg	Rat	
CAS: 78-83-1	LD50 dermal	2460 mg/kg	Rabbit	
EC: 201-148-0	LC50 inhalation	24,6 mg/L (4 h)	Rat	
butan-1-ol	LD50 oral	2292 mg/kg	Rat	
CAS: 71-36-3	LD50 dermal	3400 mg/kg	Rabbit	
EC: 200-751-6	LC50 inhalation	24,66 mg/L (4 h)	Rat	
Xylene	LD50 oral	2100 mg/kg	Rat	
CAS: 1330-20-7	LD50 dermal	1100 mg/kg	Rat	
EC: 215-535-7	LC50 inhalation	11 mg/L (4 h) (ATEi)		

# SECTION 12: ECOLOGICAL INFORMATION

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

# 12.1 Toxicity:

Identification		Acute toxicity	Species	Genus
Xylene	LC50	13.5 mg/L (96 h)	Oncorhynchus mykiss	Fish
CAS: 1330-20-7	EC50	3.4 mg/L (48 h)	Ceriodaphnia dubia	Crustacean
EC: 215-535-7	EC50	C50 10 mg/L (72 h) Skeletonema costatum		Algae
butan-1-ol	LC50	1740 mg/L (96 h)	Pimephales promelas	Fish
CAS: 71-36-3	EC50	1983 mg/L (48 h)	Daphnia magna	Crustacean
EC: 200-751-6	EC50	500 mg/L (96 h)	Scenedesmus subspicatus	Algae
2-methylpropan-1-ol	LC50	2030 mg/L (96 h)	Carassius auratus	Fish
CAS: 78-83-1	EC50	1439 mg/L (48 h)	Daphnia magna	Crustacean
EC: 201-148-0	EC50	1250 mg/L (48 h)	Scenedesmus subspicatus	Algae

#### 12.2 Persistence and degradability:

Identification	Degradability		Biodegradab	ility
Xylene	BOD5	Non-applicable	Concentration	Non-applicable
CAS: 1330-20-7	COD	Non-applicable	Period	28 days
EC: 215-535-7	BOD5/COD	Non-applicable	% Biodegradable	88 %
butan-1-ol	BOD5	1,71 g O2/g	Concentration	Non-applicable
CAS: 71-36-3	COD	2,46 g O2/g	Period	19 days
EC: 200-751-6	BOD5/COD	0,7	% Biodegradable	98 %
2-methylpropan-1-ol	BOD5	0,4 g O2/g	Concentration	100 mg/L
CAS: 78-83-1	COD	2,41 g O2/g	Period	14 days
EC: 201-148-0	BOD5/COD	0,17	% Biodegradable	90 %

#### 12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential		
Xylene	BCF	9	
CAS: 1330-20-7	Pow Log	2.77	
EC: 215-535-7	Potential	Low	

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# SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Bioaccumulation potential		
butan-1-ol	BCF	1	
CAS: 71-36-3	Pow Log	0.88	
EC: 200-751-6	Potential	Low	
2-methylpropan-1-ol	BCF	3	
CAS: 78-83-1	Pow Log	0.76	
EC: 201-148-0	Potential	Low	

#### 12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Xylene	Koc	202	Henry	524,86 Pa·m³/mol
CAS: 1330-20-7	Conclusion	Moderate	Dry soil	Yes
EC: 215-535-7	Surface tension	Non-applicable	Moist soil	Yes
butan-1-ol	Koc	2.44	Henry	5,39E-2 Pa·m³/mol
CAS: 71-36-3	Conclusion	Very High	Dry soil	Yes
EC: 200-751-6	Surface tension	2,567E-2 N/m (25 °C)	Moist soil	Yes
2-methylpropan-1-ol	Koc	Non-applicable	Henry	Non-applicable
CAS: 78-83-1	Conclusion	Non-applicable	Dry soil	Non-applicable
EC: 201-148-0	Surface tension	2,378E-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):

HP3 Flammable, HP4 Irritant — skin irritation and eye damage

# 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 recommended 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 2019 and RID 2019:



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#### SECTION 14: TRANSPORT INFORMATION (continued)



UN1263 14.1 UN number:

14.2 UN proper shipping name: PAINT RELATED MATERIAL

14.3 Transport hazard class(es): Labels: 3

III

14.4 Packing group: 14.5 Environmental hazards: No

14.6 Special precautions for user

Special regulations: 163, 367, 650

Tunnel restriction code: D/E

Physico-Chemical properties: see section 9

Limited quantities: 5 L

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

Non-applicable

UN1263

Transport of dangerous goods by sea:

With regard to IMDG 39-18:

14.1 UN number:

PAINT RELATED MATERIAL 14.2 UN proper shipping name:

14.3 Transport hazard class(es): Labels: 3

14.4 Packing group: III 14.5 Marine pollutant: No

14.6 Special precautions for user

Special regulations: 163, 223, 955, 367

EmS Codes: F-E, S-E Physico-Chemical properties: see section 9

Limited quantities: 5 I

Non-applicable Segregation group: 14.7 Transport in bulk according Non-applicable

to Annex II of Marpol and the IBC Code:

Transport of dangerous goods by air:

With regard to IATA/ICAO 2020:



14.1 UN number: UN1263

14.2 UN proper shipping name: PAINT RELATED MATERIAL

14.3 Transport hazard class(es): Labels: 14.4 Packing group: III 14.5 Environmental hazards: Nο

14.6 Special precautions for user

Physico-Chemical properties: see section 9 Non-applicable

14.7 Transport in bulk according to Annex II of Marpol and

the IBC Code:

# **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

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: Non-applicable



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## SECTION 15: REGULATORY INFORMATION (continued)

#### 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, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:

- metallic glitter intended mainly for decoration,
- artificial snow and frost,
- "whoopee" cushions,
- silly string aerosols,
- imitation excrement,
- horns for parties,
- decorative flakes and foams,
- artificial cobwebs,
- stink hombs.

Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:

'For professional users only'.

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:

H315: Causes skin irritation.

H318: Causes serious eye damage.

H226: Flammable liquid and vapour.

#### 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. 4: H302 - Harmful if swallowed.

Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled.

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

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

Skin Irrit. 2: H315 - Causes skin irritation.

STOT SE 3: H335 - May cause respiratory irritation.

STOT SE 3: H336 - May cause drowsiness or dizziness.

Classification procedure:



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# SECTION 16: OTHER INFORMATION (continued)

Skin Irrit. 2: Calculation method Eye Dam. 1: Calculation method

Flam. Liq. 3: Calculation method (2.6.4.3)

#### 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: 5-day biochemical oxygen demand

BCF: Bioconcentration factor LD50: Lethal Dose 50 LC50: Lethal Concentration 50 EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient Koc: Partition coefficient of organic carbon

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 
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