


## SILICON CHESTNUT

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

- 1.1 Product identifier:** SILICON CHESTNUT (Product code: 113064)
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
Relevant uses: Varnish  
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:**  
Berling S.A.  
Thesi Agia Paraskevi  
32011 Inofyta Viotias - Greece  
Phone.: +302262031663 - Fax: +302262031293  
info@berling.gr  
www.berling.gr
- 1.4 Emergency telephone number:** +30 210 7793 777 (Greek Poison Info Center)

### 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 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411  
Flam. Liq. 3: Flammable liquids, Category 3, H226  
STOT RE 1: Specific target organ toxicity, repeated exposure, Category 1, H372  
STOT SE 3: Specific toxicity causing drowsiness and dizziness, single exposure, Category 3, H336
- 2.2 Label elements:**  
**CLP Regulation (EC) No 1272/2008:**  
Danger
- 
- Hazard statements:**  
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects  
Flam. Liq. 3: H226 - Flammable liquid and vapour  
STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure  
STOT SE 3: H336 - May cause drowsiness or dizziness
- Precautionary statements:**  
P101: If medical advice is needed, have product container or label at hand  
P102: Keep out of reach of children  
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P264: Wash thoroughly after handling  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P370+P378: In case of fire: Use ABC powder extinguisher to extinguish  
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment
- Supplementary information:**  
EUH066: Repeated exposure may cause skin dryness or cracking  
EUH208: Contains Cobalt bis(2-ethylhexanoate). May produce an allergic reaction
- Substances that contribute to the classification**  
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) (CAS: 64742-82-1)
- 2.3 Other hazards:**  
Product fails to meet PBT/vPvB criteria

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS \*\*

- 3.1 Substance:**

\*\* Changes with regards to the previous version

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

Non-applicable

#### 3.2 Mixture:

**Chemical description:** Mixture composed of additives, 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	Concentration
CAS: 64742-82-1 EC: 919-446-0 Index: Non-applicable REACH: 01-2119458049-33-XXXX	<b>Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 3: H226; STOT RE 1: H372; STOT SE 3: H336; EUH066 - Danger	75 - <100 %
CAS: 136-51-6 EC: 205-249-0 Index: Non-applicable REACH: 01-2119978297-19-XXXX	<b>calcium bis(2-ethylhexanoate)<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Eye Dam. 1: H318; Repr. 2: H361d - Danger	0,09 - <0,24 %
CAS: 872-50-4 EC: 212-828-1 Index: 606-021-00-7 REACH: 01-2119472430-46-XXXX	<b>N-methyl-2-pyrrolidone<sup>(1)</sup></b> ATP ATP09 Regulation 1272/2008 Eye Irrit. 2: H319; Repr. 1B: H360D; Skin Irrit. 2: H315; STOT SE 3: H335 - Danger	0,09 - <0,24 %
CAS: 136-52-7 EC: 205-250-6 Index: Non-applicable REACH: 01-2119524678-29-XXXX	<b>Cobalt bis(2-ethylhexanoate)<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Acute Tox. 4: H302; Aquatic Chronic 1: H410; Repr. 2: H361f; Skin Sens. 1: H317 - Warning	0,09 - <0,24 %
CAS: 22464-99-9 EC: 245-018-1 Index: Non-applicable REACH: 01-2119979088-21-XXXX	<b>2-ethylhexanoic acid, zirconium salt<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Repr. 2: H361d - Warning	0,09 - <0,24 %
CAS: 55406-53-6 EC: 259-627-5 Index: 616-212-00-7 REACH: 01-2120762115-60-XXXX	<b>3-iodo-2-propynyl Butylcarbamate<sup>(1)</sup></b> ATP ATP06 Regulation 1272/2008 Acute Tox. 3: H331; Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Sens. 1: H317; STOT RE 1: H372 - Danger	<0,09 %

<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.

\*\* 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:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

##### 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:

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### SECTION 4: FIRST AID MEASURES (continued)

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:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO<sub>2</sub>). IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

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

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

#### 5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

#### Additional provisions:

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

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures:

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:

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.- 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

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### SECTION 7: HANDLING AND STORAGE (continued)

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

C.- Technical recommendations to prevent ergonomic and toxicological risks

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

D.- Technical recommendations to prevent environmental risks

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

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

A.- Technical measures for storage

Minimum Temp.: 5 °C  
Maximum Temp.: 35 °C  
Maximum time: 0 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

Identification	Environmental limits		
	N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	IOELV (8h)	10 ppm
	IOELV (STEL)	20 ppm	80 mg/m <sup>3</sup>

#### DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) CAS: 64742-82-1 EC: 919-446-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	44 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	330 mg/m <sup>3</sup>	Non-applicable
calcium bis(2-ethylhexanoate) CAS: 136-51-6 EC: 205-249-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	5,67 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	39,98 mg/m <sup>3</sup>	Non-applicable
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	4,8 mg/kg	Non-applicable	4,8 mg/kg	Non-applicable
	Inhalation	14,4 mg/m <sup>3</sup>	Non-applicable	14,4 mg/m <sup>3</sup>	Non-applicable
Cobalt bis(2-ethylhexanoate) CAS: 136-52-7 EC: 205-250-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	0,2351 mg/m <sup>3</sup>
2-ethylhexanoic acid, zirconium salt CAS: 22464-99-9 EC: 245-018-1	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	15,75 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	5 mg/m <sup>3</sup>	Non-applicable

#### DNEL (General population):

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## SILICON CHESTNUT

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

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) CAS: 64742-82-1 EC: 919-446-0	Oral	Non-applicable	Non-applicable	26 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	26 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	71 mg/m <sup>3</sup>	Non-applicable
calcium bis(2-ethylhexanoate) CAS: 136-51-6 EC: 205-249-0	Oral	Non-applicable	Non-applicable	2,83 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	2,83 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	9,86 mg/m <sup>3</sup>	Non-applicable
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	Oral	26 mg/kg	Non-applicable	6,3 mg/kg	Non-applicable
	Dermal	125 mg/kg	Non-applicable	11,9 mg/kg	Non-applicable
	Inhalation	80 mg/m <sup>3</sup>	Non-applicable	12,5 mg/m <sup>3</sup>	Non-applicable
Cobalt bis(2-ethylhexanoate) CAS: 136-52-7 EC: 205-250-6	Oral	Non-applicable	Non-applicable	0,0558 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	0,037 mg/m <sup>3</sup>
2-ethylhexanoic acid, zirconium salt CAS: 22464-99-9 EC: 245-018-1	Oral	Non-applicable	Non-applicable	7,9 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	7,9 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2,5 mg/m <sup>3</sup>	Non-applicable

#### PNEC:

Identification				
calcium bis(2-ethylhexanoate) CAS: 136-51-6 EC: 205-249-0	STP	71,7 mg/L	Fresh water	0,36 mg/L
	Soil	1,06 mg/kg	Marine water	0,036 mg/L
	Intermittent	0,493 mg/L	Sediment (Fresh water)	6,37 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,637 mg/kg
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	STP	10 mg/L	Fresh water	0,25 mg/L
	Soil	0,138 mg/kg	Marine water	0,025 mg/L
	Intermittent	5 mg/L	Sediment (Fresh water)	1,42 mg/kg
	Oral	1,67 g/kg	Sediment (Marine water)	0,142 mg/kg
Cobalt bis(2-ethylhexanoate) CAS: 136-52-7 EC: 205-250-6	STP	0,37 mg/L	Fresh water	0,00051 mg/L
	Soil	7,9 mg/kg	Marine water	0,00236 mg/L
	Intermittent	Non-applicable	Sediment (Fresh water)	9,5 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	9,5 mg/kg
2-ethylhexanoic acid, zirconium salt CAS: 22464-99-9 EC: 245-018-1	STP	71,7 mg/L	Fresh water	0,36 mg/L
	Soil	1,06 mg/kg	Marine water	0,036 mg/L
	Intermittent	0,493 mg/L	Sediment (Fresh water)	6,37 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,637 mg/kg



#### 8.2 Exposure controls:

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

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have CE marking in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional 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
 Mandatory respiratory tract protection	Filter mask for gases and vapours		EN 405:2001+A1:2009	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

##### C.- Specific protection for the hands

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## SILICON CHESTNUT

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





Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves		EN ISO 374-1:2016 EN 16523-1:2015 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

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



#### D.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield		EN 166:2001 EN 167:2001 EN 168:2001 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

#### E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties		EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties		EN ISO 13287:2012 EN ISO 20345:2011 EN 13832-1:2019	Replace boots at any sign of deterioration.

#### F.- Additional emergency measures

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

#### Environmental exposure controls:

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

#### Volatile organic compounds:

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

V.O.C. (Supply):	Not available
V.O.C. density at 24 °C:	Not available
Average carbon number:	Not available
Average molecular weight:	Not available

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

V.O.C. density at 24 °C:	700 kg/m <sup>3</sup> (700 g/L)
EU limit for the product (Cat. A.F):	700 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.

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

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## SILICON CHESTNUT

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

**Appearance:**

Physical state at 20 °C:	Liquid
Appearance:	Not available
Colour:	According to the markings on the package
Odour:	Not available
Odour threshold:	Non-applicable *

**Volatility:**

Boiling point at atmospheric pressure:	150 °C
Vapour pressure at 24 °C:	270 Pa
Vapour pressure at 50 °C:	1552,06 Pa (1,55 kPa)
Evaporation rate at 24 °C:	Non-applicable *

**Product description:**

Density at 24 °C:	810 - 850 kg/m <sup>3</sup>
Relative density at 24 °C:	0,871
Dynamic viscosity at 24 °C:	20 - 40 cP
Kinematic viscosity at 24 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 24 °C:	Non-applicable *
Partition coefficient n-octanol/water 24 °C:	Non-applicable *
Solubility in water at 24 °C:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *

**Flammability:**

Flash Point:	39 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	275 °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 24 °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:**

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## SILICON CHESTNUT

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

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

#### 10.3 Possibility of hazardous reactions:

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

#### 10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

#### 10.5 Incompatible materials:

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

#### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), 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: Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.

##### 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: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous 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 dangerous 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, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.  
IARC: 2,6-di-tert-butyl-p-cresol (3); Quartz (RCS < 1 %) (1); Polyethylene wax (3); Polyethylene (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. However, it does 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. However, it contains substances classified as dangerous with sensitising effects. For more information see section 3.

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

Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.

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**SILICON CHESTNUT**

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

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

- Specific target organ toxicity (STOT)-repeated exposure: Serious health effects in the case of prolonged consumption, including death, serious functional disorders or morphological changes of toxicological importance.
- Skin: Repeated exposure may cause skin dryness or cracking

H- Aspiration hazard:

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

**Other information:**

Non-applicable

**Specific toxicology information on the substances:**

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) CAS: 64742-82-1 EC: 919-446-0	>2000 mg/kg	>2000 mg/kg	
	>20 mg/L (4 h)		
calcium bis(2-ethylhexanoate) CAS: 136-51-6 EC: 205-249-0	2043 mg/kg	>2000 mg/kg	Rat
	>5 mg/L		
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	3598 mg/kg	7000 mg/kg	Rat
	>20 mg/L		
Cobalt bis(2-ethylhexanoate) CAS: 136-52-7 EC: 205-250-6	>2000 mg/kg	>2000 mg/kg	
	>5 mg/L		
2-ethylhexanoic acid, zirconium salt CAS: 22464-99-9 EC: 245-018-1	2043 mg/kg	>2000 mg/kg	Rat
	>5 mg/L		
3-iodo-2-propynyl Butylcarbamate CAS: 55406-53-6 EC: 259-627-5	1100 mg/kg	2100 mg/kg	Rat
	>5 mg/L		Rabbit

**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
	LC50	EC50		
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) CAS: 64742-82-1 EC: 919-446-0	1 - 10 mg/L (96 h)			Fish
	1 - 10 mg/L			Crustacean
	1 - 10 mg/L			Algae
calcium bis(2-ethylhexanoate) CAS: 136-51-6 EC: 205-249-0	270 mg/L (96 h)		N/A	Fish
	Non-applicable			
	Non-applicable			
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	832 mg/L (96 h)		Lepomis macrochirus	Fish
	4897 mg/L (48 h)		Daphnia magna	Crustacean
	500 mg/L (72 h)		Scenedesmus subspicatus	Algae
Cobalt bis(2-ethylhexanoate) CAS: 136-52-7 EC: 205-250-6	0.1 - 1 mg/L (96 h)			Fish
	0.1 - 1 mg/L			Crustacean
	0.1 - 1 mg/L			Algae
3-iodo-2-propynyl Butylcarbamate CAS: 55406-53-6 EC: 259-627-5	0.07 mg/L (96 h)		Oncorhynchus mykiss	Fish
	0.09 mg/L (96 h)		Mysidopsis bahia	Crustacean
	0.05 mg/L (72 h)		Scenedesmus subspicatus	Algae

**12.2 Persistence and degradability:**

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## SILICON CHESTNUT

### SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Degradability		Biodegradability	
	Parameter	Value	Parameter	Value
calcium bis(2-ethylhexanoate) CAS: 136-51-6 EC: 205-249-0	BOD5	Non-applicable	Concentration	20 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	99 %
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	BOD5	1.09 g O2/g	Concentration	100 mg/L
	COD	1.6 g O2/g	Period	28 days
	BOD5/COD	0.68	% Biodegradable	73 %
2-ethylhexanoic acid, zirconium salt CAS: 22464-99-9 EC: 245-018-1	BOD5	Non-applicable	Concentration	20 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	99 %

#### 12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
	Parameter	Value
calcium bis(2-ethylhexanoate) CAS: 136-51-6 EC: 205-249-0	BCF	
	Pow Log	2.96
	Potential	
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	BCF	0.23
	Pow Log	-0.46
	Potential	Low
2-ethylhexanoic acid, zirconium salt CAS: 22464-99-9 EC: 245-018-1	BCF	
	Pow Log	2.96
	Potential	
3-iodo-2-propynyl Butylcarbamate CAS: 55406-53-6 EC: 259-627-5	BCF	36
	Pow Log	2.4
	Potential	Moderate

#### 12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Parameter	Value	Parameter	Value
calcium bis(2-ethylhexanoate) CAS: 136-51-6 EC: 205-249-0	Koc	Non-applicable	Henry	2,94E-1 Pa·m <sup>3</sup> /mol
	Conclusion	Non-applicable	Dry soil	Yes
	Surface tension	Non-applicable	Moist soil	Yes
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	4,007E-2 N/m (25 °C)	Moist soil	Non-applicable
2-ethylhexanoic acid, zirconium salt CAS: 22464-99-9 EC: 245-018-1	Koc	Non-applicable	Henry	2,94E-1 Pa·m <sup>3</sup> /mol
	Conclusion	Non-applicable	Dry soil	Yes
	Surface tension	Non-applicable	Moist soil	Yes

#### 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, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

#### Waste management (disposal and evaluation):

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## SILICON CHESTNUT

### SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

#### Regulations related to waste management:

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

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

### SECTION 14: TRANSPORT INFORMATION

#### Transport of dangerous goods by land:

With regard to ADR 2019 and RID 2019:



- |   |                |
|---|----------------|
| <b>14.1 UN number:</b>  | UN1263         |
| <b>14.2 UN proper shipping name:</b>  | PAINT          |
| <b>14.3 Transport hazard class(es):</b>   | 3              |
| Labels:   | 3              |
| <b>14.4 Packing group:</b>  | III            |
| <b>14.5 Environmental hazards:</b>  | Yes            |
| <b>14.6 Special precautions for user</b>  |                |
| Special regulations:  | 163, 367, 650  |
| Tunnel restriction code:  | D/E            |
| Physico-Chemical properties:  | see section 9  |
| Limited quantities:   | 5 L            |
| <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b> | Non-applicable |

#### Transport of dangerous goods by sea:

With regard to IMDG 38-16:



- |   |                    |
|---|--------------------|
| <b>14.1 UN number:</b>  | UN1263             |
| <b>14.2 UN proper shipping name:</b>  | PAINT              |
| <b>14.3 Transport hazard class(es):</b>   | 3                  |
| Labels:   | 3                  |
| <b>14.4 Packing group:</b>  | III                |
| <b>14.5 Environmental hazards:</b>  | Yes                |
| <b>14.6 Special precautions for user</b>  |                    |
| Special regulations:  | 223, 955, 163, 367 |
| EmS Codes:  | F-E, S-E           |
| Physico-Chemical properties:  | see section 9      |
| Limited quantities:   | 5 L                |
| Segregation group:  | Non-applicable     |
| <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b> | Non-applicable     |

#### Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

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**SILICON CHESTNUT**

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



- 14.1 UN number:** UN1263  
**14.2 UN proper shipping name:** PAINT  
**14.3 Transport hazard class(es):** 3  
 Labels: 3  
**14.4 Packing group:** III  
**14.5 Environmental hazards:** Yes  
**14.6 Special precautions for user**  
 Physico-Chemical properties: see section 9  
**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Non-applicable

**SECTION 15: REGULATORY INFORMATION**

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

Regulation (EC) No 528/2012: contains a preservative to protect the initial properties of the treated article. Contains 3-iodo-2-propynyl Butylcarbamate.

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): N-methyl-2-pyrrolidone

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: 3-iodo-2-propynyl Butylcarbamate (Product-type 6, 7, 8, 9, 10, 13)

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		5000	50000
E2		200	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.

Contains N-methyl-2-pyrrolidone. 1. | Shall not be placed on the market as a substance on its own or in mixtures in a concentration equal to or greater than 0,3 % after 9 May 2020 unless manufacturers, importers and downstream users have included in the relevant chemical safety reports and safety data sheets, Derived No-Effect Levels (DNELs) relating to exposure of workers of 14,4 mg/m<sup>3</sup> for exposure by inhalation and 4,8 mg/kg/day for dermal exposure. | 2. | Shall not be manufactured, or used, as a substance on its own or in mixtures in a concentration equal to or greater than 0,3 % after 9 May 2020 unless manufacturers and downstream users take the appropriate risk management measures and provide the appropriate operational conditions to ensure that exposure of workers is below the DNELs specified in paragraph 1. | 3. | By way of derogation from paragraphs 1 and 2, the obligations laid down therein shall apply from 9 May 2024 in relation to placing on the market for use, or use, as a solvent or reactant in the process of coating wires.

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## SILICON CHESTNUT

### SECTION 15: REGULATORY INFORMATION (continued)

#### 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:

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):

- Removed substances  
Naphthalene (91-20-3)

#### Texts of the legislative phrases mentioned in section 2:

H336: May cause drowsiness or dizziness  
H372: Causes damage to organs through prolonged or repeated exposure  
H411: Toxic to aquatic life with long lasting effects  
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. 3: H331 - Toxic if inhaled  
Acute Tox. 4: H302 - Harmful if swallowed  
Aquatic Acute 1: H400 - Very toxic to aquatic life  
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects  
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects  
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways  
Eye Dam. 1: H318 - Causes serious eye damage  
Eye Irrit. 2: H319 - Causes serious eye irritation  
Flam. Liq. 3: H226 - Flammable liquid and vapour  
Repr. 1B: H360D - May damage the unborn child.  
Repr. 2: H361d - Suspected of damaging the unborn child.  
Repr. 2: H361f - Suspected of damaging fertility.  
Skin Irrit. 2: H315 - Causes skin irritation  
Skin Sens. 1: H317 - May cause an allergic skin reaction  
STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure  
STOT SE 3: H335 - May cause respiratory irritation  
STOT SE 3: H336 - May cause drowsiness or dizziness

#### Classification procedure:

STOT SE 3: Calculation method  
STOT RE 1: Calculation method  
Aquatic Chronic 2: 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:

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## SILICON CHESTNUT

### SECTION 16: OTHER INFORMATION (continued)

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 -