



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

**1.1. Product identifier**

Product name: MARMOLINE VELVET LIQUID P.U.

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

Intended use: PROTECTIVE VARNISH FOR DECORATIVE CEMENT BASED FINISHING SCREEDS

**1.3. Details of the supplier of the safety data sheet**

NORDIA S.A.  
 364 Kifisias Av.  
 15233 Chalandri - Greece  
 Phone.: +30 22950 22225 -  
 Fax: +30 22950 22120  
 info@marmoline.gr  
 www.marmoline.gr

**1.4. Emergency telephone number**

For urgent inquiries refer to (0030) 2107793777

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture.**

**Directive 67/548/EC and Directive 1999/45/EC:**

Acute Tox. 3: Acute inhalation toxicity, Category 3  
 Skin Sens. 1: Sensitisation, skin, Category 1  
 STOT SE 3: Respiratory tract toxicity, single exposure, Category 3  
 Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.

**CLP Regulation (EC) n° 1272/2008:**

Xi: R37 - Irritating to respiratory system, R43 - May cause sensitisation by skin contact  
 Xn: R20 - Harmful by inhalation  
 This product was classified in accordance with Directive 67/548/EC and Directive 1999/45/EC, adapting the requirements to Regulation (EC) n°1907/2006 (REACH regulation).

**2.2. Label elements.**

**Directive 67/548/EC and Directive 1999/45/EC:**

In accordance with the legislation, the elements on the label are as follows:



**R Phrases:**

R20: Harmful by inhalation  
 R37: Irritating to respiratory system  
 R43: May cause sensitisation by skin contact

**S Phrases:**

S24: Avoid contact with skin  
 S37: Wear suitable gloves  
 S51: Use only in well-ventilated areas



**Supplementary information:**

P91: Contains isocyanates-Read the information provided by the manufacturer

**Substances that contribute to the classification:**

Hexamethylene diisocyanate, oligomers

**CLP Regulation (EC) n° 1272/2008:**



**Danger**

**Hazard statements:**

Acute Tox. 3: H331 - Toxic if inhaled  
Skin Sens. 1: H317 - May cause an allergic skin reaction  
STOT SE 3: H335 - May cause respiratory irritation

**Συστάσεις προφυλάξεων:**

P261: Avoid breathing dust/fume/gas/mist/vapours/spray  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P302+P352: IF ON SKIN: Wash with plenty of water  
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P321: Specific treatment is urgently needed (go to see a doctor with the Safety data sheet for this product)  
P333+P313: If skin irritation or rash occurs: Get medical advice/attention  
P405: Store locked up  
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment

**Substances that contribute to the classification:**

Hexamethylene diisocyanate, oligomers; Hexamethylene diisocyanate

**2.3. Other hazards**

Non-applicable.

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

**Chemical description:** Polyurethane resin

**Components:**

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

Identification	Chemical name/Classification		Concentration
CAS: 28182-81-2 EC: 931-274-8 Index: Non-applicable REACH: 01-2119485796-17-XXXX	<b>Hexamethylene diisocyanate, oligomers</b> <span style="float: right;"><b>Self-classified</b></span>		<b>50-&lt;75%</b>
	Directive 67/548/EC	Xi: R37, R43; Xn: R20 <span style="float: right;"></span>	
CAS: 822-06-0 EC: 212-485-8 Index: 615-011-00-1 REACH: 01-2119457571-37-XXXX	<b>Hexamethylene diisocyanate</b> <span style="float: right;"><b>ATP CLP00</b></span>		<b>0.25-&lt;1%</b>
	Directive 67/548/EC	T: R23; Xi: R36/37/38; Xn: R42/43 <span style="float: right;"></span>	
	Regulation 1272/2008	Acute Tox. 3: H331; Skin Sens. 1: H317; STOT SE 3: H335 - Danger <span style="float: right;"> </span>	
	Regulation 1272/2008	Acute Tox. 1: H330; Acute Tox. 4: H302; Eye Irrit. 2: H319; Resp. Sens. 1: H334; Skin Irrit. Regulation 1272/2008 2: H315; Skin Sens. 1: H317; STOT SE 3: H335 - Danger <span style="float: right;"> </span>	

To obtain more information on the risk of the substances consult sections 8, 11, 12 and 16.

**SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures.**

Request medical assistance immediately, showing the MSDS 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:**

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters, ...), seek medical advice with this Security Data Sheet

**By eye contact:**

Rinse eyes thoroughly with luke warm 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, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the MSDS of the product

**By consumption:**

Do not induce vomiting, but if it does happen keep the head up to avoid inhalation. 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.**

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap 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 individual respiratory equipment. 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. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, 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.**



## MARMOLINE VELVET LIQUID P.U.

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection

**6.2. Environmental precautions.**

This product is not classified as dangerous 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

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

C.- Technical recommendations 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

Maximum temp: 35 °C

Maximum time: 9 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 work environment

There are no environmental limits for the substances contained in the product



**MARMOLINE VELVET LIQUID P.U.**

**DNEL (Workers):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Hexamethylene diisocyanate, oligomers CAS: 28182-81-2 EC: 931-274-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	1 mg/m <sup>3</sup>	Non-applicable	0,5 mg/m <sup>3</sup>
Hexamethylene diisocyanate CAS: 822-06-0 EC: 212-485-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	0,07 mg/m <sup>3</sup>	0,07 mg/m <sup>3</sup>	0,035 mg/m <sup>3</sup>	0,035 mg/m <sup>3</sup>

**DNEL (Population):**

Non-applicable

**PNEC:**

Identification			
Hexamethylene diisocyanate, oligomers CAS: 28182-81-2 EC: 931-274-8	STP	38,3 mg/L	Fresh water
	Soil	53182 mg/kg	Marine water
	Intermittent	1,27 mg/L	Sediment (Fresh water)
	Oral	Non applicable	Sediment (marine water)
Hexamethylene diisocyanate CAS: 822-06-0 EC: 212-485-8	STP	8,42 mg/L	Fresh water
	Soil	0,0026 mg/kg	Marine water
	Intermittent	0,774 mg/L	Sediment (Fresh water)
	Oral	Non applicable	Sediment (marine water)

**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 professional exposure limits. In case of using individual protection equipment they should have the "CE marking" in accordance with Directive 89/686/EC. For more information on Personal Protection 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 protection	Filter mask for gases and vapours	 CAT III	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

Pictogram	PPE	labelling	CEN standard	Remarks
 Mandatory hand protection	Chemical protective gloves	 CAT I	EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	Replace the gloves at any sign of deterioration

D.- Ocular and facial protection

Pictogram	PPE	labelling	CEN standard	Remarks
 Mandatory face protection	Panoramic glasses against liquid splash	 CAT II	EN 166:2001 EN 172:1994/A1:2000 EN 172:1994/A2:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.



**MARMOLINE VELVET LIQUID P.U.**

**E.- Bodily protection**

Pictogram	PPE	labelling	CEN standard	Remarks
	Work clothing		EN ISO 13688:2013	For professional use only.
	Anti-slip work shoes		EN ISO 20347:2012 EN ISO 20344:2011	None

**F.- Additional emergency measures**

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

**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

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on basic physical and chemical properties**

**Appearance:**

Physical state at 20°C	Liquid
Colour	Colourless
Odour	characteristic

**Volatility:**

Boiling point at atmospheric pressure	406 °C
Vapour pressure at 20 °C	0 Pa
Vapour pressure at 50 °C	1 Pa (0 kPa)
Evaporation rate at 20 °C	Non-applicable

**Product description:**

Density at 20 °C	1083 kg/m <sup>3</sup>
Relative density at 20 °C	1.083
Dynamic viscosity at 20 °C	2631.65 cP
Kinematic viscosity at 20 °C	2430.21 cP
Kinematic viscosity at 40 °C	Non-applicable
Concentration	Non-applicable
pH	Non-applicable
Vapour density at 20 °C	Non-applicable
Partition coefficient n-octanol/water at 20 °C	Non-applicable
Solubility in water at 20 °C	Non-applicable
Solubility property	Non-applicable
Decomposition temperature	Non-applicable
Melting point/freezing point	Non-applicable



**MARMOLINE VELVET LIQUID P.U.**

**Flammability:**

Flash Point: Non flammable (>60 °C)  
 Autoignition temperature: 405 °C  
 Lower flammability limit: Not -applicable  
 Upper flammability limit: Not -applicable

**9.2. Other information**

Surface tension at 20 °C: Not -applicable  
 Refraction index: Not -applicable

**SECTION 10: STABILITY AND REACTIVITY**

**10.1. Reactivity.**

No hazardous reactions are expected if the following technical instructions storage of chemicals...See section 7

**10.2. Chemical stability.**

Chemically stable under the conditions of storage, handling and use

**10.3. Possibility of hazardous reactions.**

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

**10.4. Conditions to avoid.**

Applicable for handling and storage at room temperature:

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

**10.5. Incompatible materials**

Acids	Water	Combustive materials	Combustive materials	Others
Not applicable	Not applicable	Avoid direct impact	Not applicable	Not applicable

**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:**

No experimental information is available on the product itself in relation to the toxicological properties. When performing the danger classification on corrosive or irritant effects the recommendations included in section 3.2.5 of Annex VI of Directive 67/548/EC, in paragraphs b) and c) of section 3 of article 6 of Directive 1999/45/EC and in section 3.2.3.3.5. of Annex I of CLP Regulation were taken into account.

**Dangerous health implications:**

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

**A.- Ingestion:**

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.

**B- Inhalation:**

Inhalation after prolonged exposure may be lethal.



**MARMOLINE VELVET LIQUID P.U.**

**C- Contact with the skin and the eyes:**

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.

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

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.

**E- Sensitizing effects::**

Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

**F- Specific target organ toxicity (STOT)-time 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.

**G- 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.

**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:**

Not applicable

**Specific toxicology information on the substances:**

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Hexamethylene diisocyanate, oligomers CAS: 28182-81-2 EC: 931-274-8	5100 mg/kg	>2000 mg/kg (ATEi)	Rat
		3 mg/L (4 h) (ATEi)	
Hexamethylene diisocyanate CAS: 822-06-0 EC: 212-485-8	>2000 mg/kg	>2000 mg/kg (ATEi)	
		0,05 mg/L (4 h) (ATEi)	Rat

**SECTION 12: ECOLOGICAL INFORMATION**

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

**12.1. Toxicity:**

Not available

**12.2. Persistence and degradability:**

Identification	Degradability		Biodegradability	
	BOD5	COD	Concentration	period
Hexamethylene diisocyanate CAS: 822-06-0 EC: 212-485-8	Non applicable	Non applicable	100 mg/L	28 days
			% biodegradable	28 %

**12.3. Bioaccumulative potential:**

Not available





**12.4. Mobility in soil:**

Not available

**12.5. Results of PBT and vPvB assessment**

Non applicable

**12.6. Other adverse effects:**

Not described

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

Code	Description	Waste class (Directive 2008/98/EC)
08 01 11*	Waste paint and varnish containing organic solvents or other dangerous substances	dangerous

**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 (2000/532/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, 2000/532/EC: Commission decision of 3 May 2000

**SECTION 14: TRANSPORT INFORMATION**

**Transport of dangerous goods by land:**

With regard to ADR 2013 and RID 2013:



<b>14.1</b>	<b>UN number:</b>	UN1993
<b>14.2</b>	<b>UN proper shipping name</b>	TOXIC LIQUID, ORGANIC, N.O.S. (Hexamethylene diisocyanate)
<b>14.3</b>	<b>Transport hazard class(es):</b>	6.1
	Labels	6.1
<b>14.4</b>	<b>Packing group:</b>	III
<b>14.5</b>	<b>Dangerous for the environment:</b>	No
<b>14.6</b>	<b>Special precautions for user</b>	
	Special regulations::	274,614
	Tunnel restriction code::	E
	Physico-Chemical properties:	see section 9
	LQ:	5L
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:</b>	Non applicable



**MARMOLINE VELVET LIQUID P.U.**

**Transport of dangerous goods by sea:**

With regard to IMDG 36-12:



<b>14.1</b>	<b>UN number:</b>	UN2810
<b>14.2</b>	<b>UN proper shipping name</b>	TOXIC LIQUID, ORGANIC, N.O.S. (Hexamethylene diisocyanate)
<b>14.3</b>	<b>Transport hazard class(es):</b>	6.1
	Labels	6.1
<b>14.4</b>	<b>Packing group:</b>	III
<b>14.5</b>	<b>Dangerous for the environment</b>	No
<b>14.6</b>	<b>Special precautions for user</b>	
	Special regulations:	223,274,944
	EmS Codes:	F-A, S-A
	Physico-Chemical properties:	See section 9
	LQ:	5L
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:</b>	Non applicable

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2014:



<b>14.1</b>	<b>UN number:</b>	UN2810
<b>14.2</b>	<b>UN proper shipping name</b>	TOXIC LIQUID, ORGANIC, N.O.S. (Hexamethylene diisocyanate)
<b>14.3</b>	<b>Transport hazard class(es):</b>	6.1
	Labels	6.1
<b>14.4</b>	<b>Packing group:</b>	III
<b>14.5</b>	<b>Dangerous for the environment:</b>	No
<b>14.6</b>	<b>Special precautions for user</b>	
	Physico-Chemical properties:	See section 9
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Non applicable

**SECTION 15: REGULATORY INFORMATION**

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

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): Non-applicable  
 Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable  
 Active substances for which a decision of non-inclusion onto Annex I (Regulation (EU) No 528/2012): Non-applicable  
 Regulation (EC) 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

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

Contains Di-''isononyl'' phthalate. This product may not be used in childrens' games or items if the final Di-''isononyl'' phthalate concentration is greater than 0.1 in the weight of plasitcised material.

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.



## MARMOLINE VELVET LIQUID P.U.

**Other legislation:**

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009, 2009 No. 716

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (CDG 2009), SI 2009 No 1348

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Amendment) Regulations 2011, 2011 No. 1885

Control of Substances Hazardous to Health Regulations 2002 (as amended)

EH40/2005 Workplace exposure limits

The Waste Regulations 2011, 2011 No. 988

**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) N° 1907/2006 (Regulation (EC) N° 453/2010)

**Modifications related to the previous security card which concerns the ways of managing risks.:**

Non applicable

**Text of R-phrases considered 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

**Directive 67/548/EC and Directive 1999/45/EC**

R20: Harmful by inhalation

R23: Toxic by inhalation

R36/37/38: Irritating to eyes, respiratory system and skin

R37: Irritating to respiratory system

R42/43: May cause sensitisation by inhalation and skin contact

R43: May cause sensitisation by skin contact

**CLP Regulation (EC) no 1272/2008 :**

Acute Tox. 1: H330 - Fatal if inhaled

Acute Tox. 3: H331 - Toxic if inhaled

Acute Tox. 4: H302 - Harmful if swallowed

Eye Irrit. 2: H319 - Causes serious eye irritation

Resp. Sens. 1: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Skin Irrit. 2: H315 - Causes skin irritation

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

STOT SE 3: H335 - May cause respiratory irritation

**Advice relating to training:**

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

**Principal bibliographical sources:**

<http://esis.jrc.ec.europa.eu>

<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
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol–water partition coefficient
- Koc: Partition coefficient of organic carbon

The information contained in this security 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 security data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -