


**MARMOBOND - Polyester marble adhesive & putty
24-07**

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

- 1.1 Product identifier:** MARMOBOND - Polyester marble adhesive & putty
24-07
Calcium Carbonate
- CAS: 471-34-1
EC: 207-439-9
Index: Non-applicable
REACH: 01-2119486795-18-XXXX
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Adhesive for construction
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:** EVOCHEM S.A.
Tzaverdella Place
133 41 PHILI , ATTICA - GREECE
Phone.: 0030 210 5590460 , 0030 210 5590155 -
Fax: 0030 210 6254737 , 0030 210 5590244
info@evochem.gr; vmergoupis@evochem.gr;
sales@evochem.gr
www.evochem.gr
- 1.4 Emergency telephone number:** National Poisoning Center 2107793777

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
Directive 67/548/EC and Directive 1999/45/EC:
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).
Xi: R36/37/38 - Irritating to eyes, respiratory system and skin
Xn: R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed, R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation
R10 - Flammable
- CLP Regulation (EC) n° 1272/2008:**
Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.
Acute Tox. 4: Acute inhalation toxicity, Category 4
Eye Irrit. 2: Eye irritation, Category 2
Flam. Liq. 3: Flammable liquids, Category 3
Skin Irrit. 2: Skin irritation, Category 2
STOT RE 1: Specific target organ toxicity by inhalation, repeated exposure, Category 1
- 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:
- Xn

Harmful
- R Phrases:**
R10: Flammable
R20/21/22: Harmful by inhalation, in contact with skin and if swallowed
R36/37/38: Irritating to eyes, respiratory system and skin
R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation
- S Phrases:**
S2: Keep out of the reach of children
S36/37: Wear suitable protective clothing and gloves
S43: In case of fire, use polyvalent powder ABC
S46: If swallowed, seek medical advice immediately and show this container or label

- CONTINUED ON NEXT PAGE -

**MARMOBOND - Polyester marble adhesive & putty
24-07**

SECTION 2: HAZARDS IDENTIFICATION (continue)

Supplementary information:

Non-applicable

Substances that contribute to the classification:

Styrene Monomer (CAS: 100-42-5)

CLP Regulation (EC) n° 1272/2008:

Danger



Hazard statements:

Acute Tox. 4: H332 - Harmful if inhaled
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 3: H226 - Flammable liquid and vapour
Skin Irrit. 2: H315 - Causes skin irritation
STOT RE 1: H372 - Causes damage to organs after prolonged or repeated exposure through inhalation

Precautionary statements:

P101: If medical advice is needed, have product container or label at hand
P102: Keep out of reach of children
P103: Read label before use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment

Supplementary information:

Non-applicable

Substances that contribute to the classification

Styrene Monomer (CAS: 100-42-5); 2-methoxy-1-methylethyl acetate (CAS: 108-65-6)

2.3 Other hazards:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical description: Polyester resin

Components:

In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 471-34-1 EC: 207-439-9 Index: Non-applicable REACH:01-2119486795-18-XXXX	Calcium Carbonate Not classified	50 - <75 %
	Directive 67/548/EC	
	Regulation 1272/2008	
CAS: 100-42-5 EC: 202-851-5 Index: 601-026-00-0 REACH:01-2119457861-32-XXXX	Styrene Monomer Self-classified	9,9 - <19 %
	Directive 67/548/EC Xi: R36/37/38; Xn: R20, R48/20; R10	
	Regulation 1272/2008 Acute Tox. 4: H332; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT RE 1: H372; STOT SE 3: H335 - Danger	
CAS: 64742-95-6 EC: 265-199-0 Index: 649-356-00-4 REACH:01-2119486773-24-XXXX	Solvent naphtha (petroleum), light arom. < 0.1 % EC 200-753-7 ATP ATP01	0,09 - <0,24 %
	Directive 67/548/EC N: R51/53; Xi: R37; Xn: R65; R10; R66; R67	
	Regulation 1272/2008 Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 3: H226; STOT SE 3: H335; STOT SE 3: H336 - Danger	
CAS: 111-76-2 EC: 203-905-0 Index: 603-014-00-0 REACH:01-2119475108-36-XXXX	2-butoxyethanol ATP CLP00	0,09 - <0,24 %
	Directive 67/548/EC Xi: R36/38; Xn: R20/21/22	
	Regulation 1272/2008 Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	

- CONTINUED ON NEXT PAGE -

**MARMOBOND - Polyester marble adhesive & putty
24-07**

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continue)

Identification	Chemical name/Classification	Concentration
CAS: 108-65-6 EC: 203-603-9 Index: 607-195-00-7 REACH: 01-2119475791-29-XXXX	2-methoxy-1-methylethyl acetate ATP ATP01 Directive 67/548/EC R10 Regulation 1272/2008 Flam. Liq. 3: H226 - Warning	<0,09 %

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:

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 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:

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 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:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂). IT IS RECOMMENDED NOT 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 subproducts 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:

- CONTINUED ON NEXT PAGE -

**MARMOBOND - Polyester marble adhesive & putty
24-07**

SECTION 6: ACCIDENTAL RELEASE MEASURES (continue)

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 inertizing agent. 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 spillage into an aqueous medium as it contains substances potentially dangerous for this. Contain the product absorbed in hermetically sealed containers. In the case of serious spillage into an aqueous medium notify the relevant authority.

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 94/9/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
Maximum Temp.:	35 °C
Maximum time:	12 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

- CONTINUED ON NEXT PAGE -

MARMOBOND - Polyester marble adhesive & putty
24-07

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

Identification	Environmental limits		
	IOELV (8h)	20 ppm	98 mg/m ³
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	IOELV (STEL)	50 ppm	246 mg/m ³
	Year	2014	
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	IOELV (8h)	50 ppm	275 mg/m ³
	IOELV (STEL)	100 ppm	550 mg/m ³
	Year	2014	

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Calcium Carbonate CAS: 471-34-1 EC: 207-439-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	10 mg/m ³	Non-applicable
Styrene Monomer CAS: 100-42-5 EC: 202-851-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	406 mg/kg	Non-applicable
	Inhalation	289 mg/m ³	306 mg/m ³	85 mg/m ³	Non-applicable
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	89 mg/kg	Non-applicable	75 mg/kg	Non-applicable
	Inhalation	663 mg/m ³	246 mg/m ³	98 mg/m ³	Non-applicable
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	153,5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	275 mg/m ³	Non-applicable

DNEL (Population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Calcium Carbonate CAS: 471-34-1 EC: 207-439-9	Oral	6,1 mg/kg	Non-applicable	6,1 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	10 mg/m ³	Non-applicable
Styrene Monomer CAS: 100-42-5 EC: 202-851-5	Oral	Non-applicable	Non-applicable	2,1 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	343 mg/kg	Non-applicable
	Inhalation	174,25 mg/m ³	182,75 mg/m ³	10,2 mg/m ³	Non-applicable
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	Oral	13,4 mg/kg	Non-applicable	3,2 mg/kg	Non-applicable
	Dermal	44,5 mg/kg	Non-applicable	38 mg/kg	Non-applicable
	Inhalation	426 mg/m ³	123 mg/m ³	49 mg/m ³	Non-applicable
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	Oral	Non-applicable	Non-applicable	1,67 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	54,8 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	33 mg/m ³	Non-applicable

PNEC:

Identification				
Calcium Carbonate CAS: 471-34-1 EC: 207-439-9	STP	100 mg/L	Fresh water	Non-applicable
	Soil	Non-applicable	Marine water	Non-applicable
	Intermittent	Non-applicable	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable
Styrene Monomer CAS: 100-42-5 EC: 202-851-5	STP	5 mg/L	Fresh water	0,028 mg/L
	Soil	0,2 mg/kg	Marine water	0,0028 mg/L
	Intermittent	0,04 mg/L	Sediment (Fresh water)	0,614 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,0614 mg/kg
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	STP	463 mg/L	Fresh water	8,8 mg/L
	Soil	3,13 mg/kg	Marine water	0,88 mg/L
	Intermittent	9,1 mg/L	Sediment (Fresh water)	34,6 mg/kg
	Oral	20 g/kg	Sediment (Marine water)	Non-applicable

- CONTINUED ON NEXT PAGE -

**MARMOBOND - Polyester marble adhesive & putty
24-07**

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

Identification				
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	STP	100 mg/L	Fresh water	0,635 mg/L
	Soil	0,29 mg/kg	Marine water	0,0635 mg/L
	Intermittent	6,35 mg/L	Sediment (Fresh water)	3,29 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,329 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 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 tract protection	Filter mask for gases and vapours	CE 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	CE 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	CE 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.

E.- Bodily protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory complete body protection	Antistatic and fireproof protective clothing	CE CAT III	EN 1149-1:2006 EN 1149-2:1997 EN 1149-3:2004 EN 168:2001 EN ISO 14116:2008/AC:2009 EN 1149-5:2008	Limited protection against flames.
Mandatory foot protection	Safety footwear with antistatic and heat resistant properties	CE CAT III	EN 13287:2008 EN ISO 20345:2011 EN ISO 20344:2011	Replace boots at any sign of deterioration.

F.- Additional emergency measures

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

Environmental exposure controls:

- CONTINUED ON NEXT PAGE -

**MARMOBOND - Polyester marble adhesive & putty
24-07****SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)**

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

Volatil organic compounds:

With regard to Directive 1999/13/EC, this product has the following characteristics:

V.O.C. (Supply):	13,11 % weight
V.O.C. density at 20 °C:	262,13 kg/m ³ (262,13 g/L)
Average carbon number:	8
Average molecular weight:	104,57 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
Color:	<input type="checkbox"/> White
Odor:	Characteristic

Volatility:

Boiling point at atmospheric pressure:	146 °C
Vapour pressure at 20 °C:	613 Pa
Vapour pressure at 50 °C:	6000 Pa (6 kPa)
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1800 - 2200 kg/m ³
Relative density at 20 °C:	1,792
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	>20,5 cSt
Concentration:	250000000 - 300000000 g/L (active ingredient)
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility property:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *

Flammability:

Flash Point:	32 °C
Autoignition temperature:	238 °C
Lower flammability limit:	Not available
Upper flammability limit:	Not available

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.

- CONTINUED ON NEXT PAGE -

**MARMOBOND - Polyester marble adhesive & putty
24-07**

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	Risk of combustion	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Not applicable	Not applicable	Avoid direct impact	Avoid direct impact	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 (CO₂), 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.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

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, however, it contains substances classified as dangerous for consumption. For more information see section 3.

B- Inhalation:

Exposure in high concentrations can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion and in serious cases, loss of concentration.

C- Contact with the skin and the eyes:

Produces skin inflammation.

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:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensiblizing effects. For more information see section 3.

F- Specific target organ toxicity (STOT)-time 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:

Serious health effects in the case of prolonged inhalation, including death, serious functional disorders or morphological changes of toxicological importance.

H- Aspiration hazard:

- CONTINUED ON NEXT PAGE -

**MARMOBOND - Polyester marble adhesive & putty
24-07**

SECTION 11: TOXICOLOGICAL INFORMATION (continue)

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
	Route	Dose	
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	LD50 oral	8532 mg/kg	Rat
	LD50 dermal	5100 mg/kg	Rat
	LC50 inhalation	30 mg/L (4 h)	Rat
Solvent naphtha (petroleum), light arom. < 0.1 % EC 200-753-7 CAS: 64742-95-6 EC: 265-199-0	LD50 oral	2100 mg/kg	Rat
	LD50 dermal	2000 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
Calcium Carbonate CAS: 471-34-1 EC: 207-439-9	LD50 oral	6450 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Styrene Monomer CAS: 100-42-5 EC: 202-851-5	LD50 oral	Non-applicable	
	LD50 dermal	Non-applicable	
	LC50 inhalation	11,8 mg/L (4 h)	Rat
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	LD50 oral	500 mg/kg	Rat
	LD50 dermal	1100 mg/kg	Rat
	LC50 inhalation	11 mg/L (4 h)	Rat

SECTION 12: ECOLOGICAL INFORMATION

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

12.1 Toxicity:

Identification	Acute toxicity		Specie	Genus
	Route	Dose		
Calcium Carbonate CAS: 471-34-1 EC: 207-439-9	LC50	56000 mg/L (96 h)	Gambusia affinis	Fish
	EC50	Non-applicable		
	EC50	Non-applicable		
Styrene Monomer CAS: 100-42-5 EC: 202-851-5	LC50	64,7 mg/L (96 h)	Carassius auratus	Fish
	EC50	4,7 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	67 mg/L (192 h)	Microcystis aeruginosa	Alga
Solvent naphtha (petroleum), light arom. < 0.1 % EC 200-753-7 CAS: 64742-95-6 EC: 265-199-0	LC50	1 - 10 mg/L (96 h)		Fish
	EC50	1 - 10 mg/L		Crustacean
	EC50	1 - 10 mg/L		Alga
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	LC50	1490 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50	1815 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	911 mg/L (72 h)	Pseudokirchneriella subcapitata	Alga
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	LC50	161 mg/L (96 h)	Pimephales promelas	Fish
	EC50	481 mg/L (48 h)	Daphnia sp.	Crustacean
	EC50	Non-applicable		

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
	Parameter	Value	Parameter	Value
Styrene Monomer CAS: 100-42-5 EC: 202-851-5	BOD5	1.96 g O2/g	Concentration	100 mg/L
	COD	2.8 g O2/g	Period	14 days
	BOD5/COD	0.7	% Biodegradable	100 %
Solvent naphtha (petroleum), light arom. < 0.1 % EC 200-753-7 CAS: 64742-95-6 EC: 265-199-0	BOD5	0.19 g O2/g	Concentration	Non-applicable
	COD	0.44 g O2/g	Period	Non-applicable
	BOD5/COD	0.43	% Biodegradable	Non-applicable

- CONTINUED ON NEXT PAGE -

**MARMOBOND - Polyester marble adhesive & putty
24-07**

SECTION 12: ECOLOGICAL INFORMATION (continue)

Identification	Degradability		Biodegradability	
	Parameter	Value	Parameter	Value
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	BOD5	0.71 g O2/g	Concentration	100 mg/L
	COD	2.2 g O2/g	Period	14 days
	BOD5/COD	0.32	% Biodegradable	96 %
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	BOD5	Non-applicable	Concentration	785 mg/L
	COD	Non-applicable	Period	8 days
	BOD5/COD	Non-applicable	% Biodegradable	100 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
	Parameter	Value
Styrene Monomer CAS: 100-42-5 EC: 202-851-5	BCF	14
	Pow Log	2,95
	Potential	Low
Solvent naphtha (petroleum), light arom. < 0.1 % EC 200-753-7 CAS: 64742-95-6 EC: 265-199-0	BCF	
	Pow Log	4
	Potential	
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	BCF	3
	Pow Log	0,83
	Potential	Low
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	BCF	1
	Pow Log	0,43
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Parameter	Value	Parameter	Value
Styrene Monomer CAS: 100-42-5 EC: 202-851-5	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	32100 N/m (25 °C)	Moist soil	Non-applicable
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	Koc	8	Henry	1,621E-1 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	27290 N/m (25 °C)	Moist soil	Yes

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 04 09*	Waste adhesives and sealants 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 recommend disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) n°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:

- CONTINUED ON NEXT PAGE -

**MARMOBOND - Polyester marble adhesive & putty
24-07**

SECTION 14: TRANSPORT INFORMATION (continue)

With regard to ADR 2013 and RID 2013:



- | | |
|---|---------------------------------------|
| 14.1 UN number: | UN1133 |
| 14.2 UN proper shipping name: | ADHESIVES containing flammable liquid |
| 14.3 Transport hazard class(es): | 3 |
| Labels: | 3 |
| 14.4 Packing group: | III |
| 14.5 Dangerous for the environment: | No |
| 14.6 Special precautions for user | |
| Special regulations: | 640E |
| 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 73/78 and the IBC Code: | Non-applicable |

Transport of dangerous goods by sea:

With regard to IMDG 36-12:



- | | |
|---|---------------------------------------|
| 14.1 UN number: | UN1133 |
| 14.2 UN proper shipping name: | ADHESIVES containing flammable liquid |
| 14.3 Transport hazard class(es): | 3 |
| Labels: | 3 |
| 14.4 Packing group: | III |
| 14.5 Dangerous for the environment: | No |
| 14.6 Special precautions for user | |
| Special regulations: | 223, 944, 955 |
| EmS Codes: | F-E, S-D |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 5 L |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: | Non-applicable |

Transport of dangerous goods by air:

With regard to IATA/ICAO 2014:



- | | |
|---|---------------------------------------|
| 14.1 UN number: | UN1133 |
| 14.2 UN proper shipping name: | ADHESIVES containing flammable liquid |
| 14.3 Transport hazard class(es): | 3 |
| Labels: | 3 |
| 14.4 Packing group: | III |
| 14.5 Dangerous for the environment: | No |
| 14.6 Special precautions for user | |
| Physico-Chemical properties: | see section 9 |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: | Non-applicable |

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) 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

- CONTINUED ON NEXT PAGE -

**MARMOBOND - Polyester marble adhesive & putty
24-07**

SECTION 15: REGULATORY INFORMATION (continue)

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):

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.

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.

Other legislation:

Non-applicable

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. :

COMPOSITION/INFORMATION ON INGREDIENTS:

- Added Content
Calcium Carbonate (471-34-1)

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

- S Phrases

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:

- R10: Flammable
- R20: Harmful by inhalation
- R20/21/22: Harmful by inhalation, in contact with skin and if swallowed
- R36/37/38: Irritating to eyes, respiratory system and skin
- R36/38: Irritating to eyes and skin
- R37: Irritating to respiratory system
- R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation
- R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- R65: Harmful: may cause lung damage if swallowed
- R66: Repeated exposure may cause skin dryness or cracking
- R67: Vapours may cause drowsiness and dizziness

CLP Regulation (EC) n° 1272/2008:

- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Acute Tox. 4: H332 - Harmful if inhaled
- Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects
- Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 3: H226 - Flammable liquid and vapour
- Skin Irrit. 2: H315 - Causes skin irritation
- STOT RE 1: H372 - Causes damage to organs after prolonged or repeated exposure through inhalation
- STOT SE 3: H335 - May cause respiratory irritation
- STOT SE 3: H336 - May cause drowsiness or dizziness

- CONTINUED ON NEXT PAGE -

**MARMOBOND - Polyester marble adhesive & putty
24-07**

SECTION 16: OTHER INFORMATION (continue)

Advice related 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 -