Safety Data Sheet complying with Regulation 1907/2006/EC (REACH

Regulation, 453/2010/EC and Regulation No 1272/2008/EC

(CLP)

Printing date 11.12.2014

Version number 2

Revision: 10.12.2014

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- · 1.1 Product identifier
- · Trade name: MARISEAL 670
- 1.2 Relevant identified uses of the substance or mixture and uses advised against No relevant identified uses-mixture of substances.
- · Application of the substance / the mixture Polyurethane Waterproofing Coating
- 1.3 Details of the supplier of the safety data sheet
 Manufacturer/Supplier: MARIS POLYMERS Industrial Area of Inofita 32 011 Inofita, Greece TEL. +30 22620 32918-9 FAX. +30 22620 32040 info@marispolymers.gr www.marispolymers.com
 1.4 Emergency telephone number:
- National Poisoning Center Emergency telephone number: 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Classification according to Regulation EC No 1272/2008 CLP GHS02 flame Flam. Liq. 3 H226 Flammable liquid and vapour. GHS08 health hazard Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

GHS07

Acute Tox. 4 H332 Harmful if inhaled. Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

(Contd. on page 2)

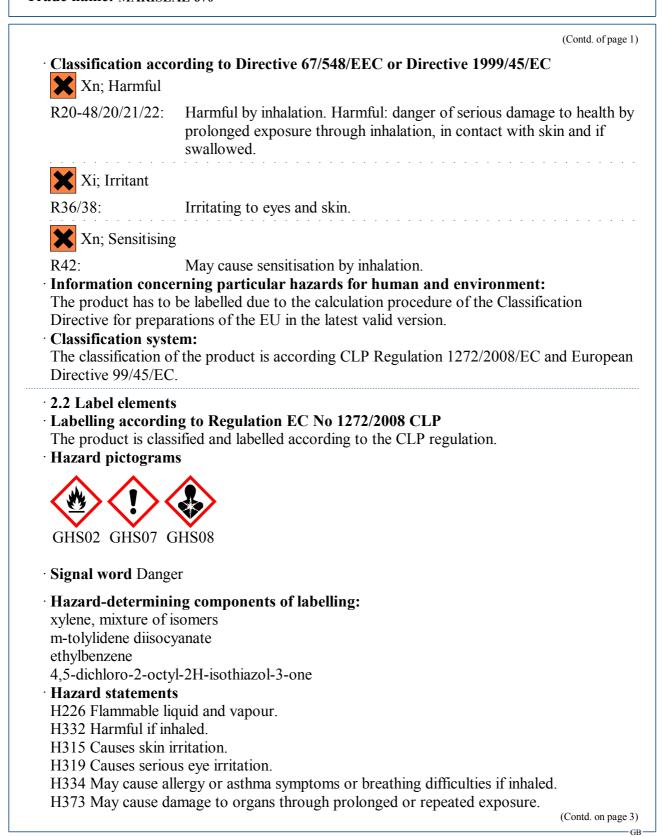
GB -

(CLP) Version number 2

Revision: 10.12.2014

Trade name: MARISEAL 670

Printing date 11.12.2014



(CLP)

Printing date 11.12.2014

Version number 2

Revision: 10.12.2014

Trade name: MARISEAL 670

		(Contd. of page 2)
 Precautionary sta 	itements	
P210	Keep away from heat, hot surfaces, sparks, open flames and	other
	ignition sources. No smoking.	
P280	Wear protective gloves/protective clothing/eye protection/fac	ce
	protection.	
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes	3. Remove
	contact lenses, if present and easy to do. Continue rinsing.	
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/ c	loctor.
P304+P340	IF INHALED: Remove person to fresh air and keep comfort	able for
	breathing.	
P331	Do NOT induce vomiting.	
P342+P311	If experiencing respiratory symptoms: Call a POISON CENT	ER/doctor.
P405	Store locked up.	
P501	Dispose of contents/container in accordance with local/region	nal/national/
	international regulations.	
· Additional inform	nation:	
Contains isocyanat	tes. May produce an allergic reaction.	
· 2.3 Other hazard	S	
· Results of PBT an	nd vPvB assessment	
• PBT: Not applical		

• **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

• Dangerous components:

CAS: 1330-20-7 EINECS: 215-535-7	xylene, mixture of isomers $\mathbf{X}_{\mathbf{x}} = \mathbf{X}_{\mathbf{x}} = $	10-<20%
Reg.nr.: 01-2119488216-32-XXXX		
	 Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute 	
	Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT	
	SE 3, H335	
	•	(Contd. on page 4)

Revision: 10.12.2014

Printing date 11.12.2014

Version number 2

Trade name: MARISEAL 670

		(Contd. of page 3)
CAS: 100-41-4 EINECS: 202-849-4 Index number: 601-023-00-4	ethylbenzene Xn R20;	3-<10%
CAS: 64742-82-1 EINECS: 265-185-4 Index number: 649-300-00-2	Naphtha (petroleum), hydrodesulfurized heavy Xn R65; Zn R51/53 R67 Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336	0.1-<0.3%
CAS: 26471-62-5 EINECS: 247-722-4 Index number: 615-006-00-4 Reg.nr.: 01-2119454791-34-XXXX	m-tolylidene diisocyanate	0.1-<1%
CAS: 64359-81-5 EINECS: 264-843-8	4,5-dichloro-2-octyl-2H-isothiazol-3-one T+R26; CR35; XnR22; Xi R43; NR50 Acute Tox. 1, H330; Met. Corr.1, H290; Skin Corr. 1A, H314; Aquatic Acute 1, H400; ↑ Acute Tox. 4, H302; Skin Sens. 1, H317	0.1-<0.3%

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Take affected persons out into the fresh air.

Seek immediate medical advice.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

Seek medical treatment in case of complaints.

(Contd. on page 5)

GB

(CLP)

Printing date 11.12.2014

Version number 2

Revision: 10.12.2014

Trade name: MARISEAL 670

- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Do not induce vomiting; call for medical help immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately. Seek immediate medical advice.

- 4.2 Most important symptoms and effects, both acute and delayed
- No further relevant information available.

• **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray.

- 5.2 Special hazards arising from the substance or mixture
- No further relevant information available.
- 5.3 Advice for firefighters
- · Protective equipment:

Mouth respiratory protective device.

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

· Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water.

• 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

(Contd. on page 6)

Printing date 11.12.2014

Version number 2

Revision: 10.12.2014

Trade name: MARISEAL 670

(Contd. of page 5)

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care.

Information about fire - and explosion protection: Protect from heat.

Protect against electrostatic charges.

Keep respiratory protective device available.

Keep it in a dry, cool, well ventilated, fixed in advance place, away from sources of heat, flames, ignition and direct sunlight.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

• Requirements to be met by storerooms and receptacles: Store in a cool location.

· Information about storage in one common storage facility: Store away from foodstuffs.

· Further information about storage conditions:

Keep container tightly sealed.

Protect from heat and direct sunlight.

Store under lock and key and with access restricted to technical experts or their assistants only.

Store under lock and key and out of the reach of children.

• 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

1330-20-7 xylene, mixture of isomers

WEL Short-term value: 441 mg/m³, 100 ppm Long-term value: 220 mg/m³, 50 ppm Sk; BMGV

100-41-4 ethylbenzene

WEL Short-term value: 552 mg/m³, 125 ppm Long-term value: 441 mg/m³, 100 ppm Sk

(Contd. on page 7)

(CLP)

Printing date 11.12.2014

Version number 2

Revision: 10.12.2014

Trade name: MARISEAL 670

(Contd. of page 6)

26471-62-5 m-tolylidene diisocyanate

WEL Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO

Ingredients with biological limit values:

1330-20-7 xylene, mixture of isomers

BMGV 650 mmol/mol creatinine

- Medium: urine
- Sampling time: post shift
- Parameter: methyl hippuric acid

• Additional information: The lists valid during the making were used as basis.

· 8.2 Exposure controls

· Personal protective equipment:

• General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.

Store protective clothing separately.

Respiratory protection:



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 8)

GB -

(CLP) Version number 2

Revision: 10.12.2014

Trade name: MARISEAL 670

Printing date 11.12.2014

(Contd. of page 7)

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

• For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable: PVC gloves

• Eye protection:



Tightly sealed goggles

Body protection:



Protective work clothing

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information

General Information	
· Appearance:	
Form:	Viscous
Colour:	Black
· Odour:	Characteristic
· Odour threshold:	Not determined
· pH value:	Not determined
• Melting point/Melting range:	Not determined
· Boiling point/Boiling range:	Not determined
· Flash point:	Not determined
· Flammability (solid, gaseous):	Not applicable
· Autoignition temperature:	Not determined
· Decomposition temperature:	Not determined
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Not determined.
· Explosion limits:	
Lower:	Not determined
	(Contd. on page

GB

Printing date 11.12.2014

Version number 2

Revision: 10.12.2014

Trade name: MARISEAL 670

	(Contd. of page 8)
Upper:	Not determined
· Vapour pressure:	Not determined
· Density:	Not determined
Relative density	Not determined
· Vapour density	Not determined
· Evaporation rate	Not determined
· Solubility in / Miscibility with	
water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/wa	ter): Not determined
· Viscosity:	
Dynamic:	Not determined
Kinematic at 20 °C:	90 s (ISO 2431: 1993 ; 6mm JET)
· Solvent content:	
VOC (EC)	170 g/l
• 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: Stable at environment temperature.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- Acute toxicity:

· LD/LC50 v	values	relevant	for	classification:
-------------	--------	----------	-----	-----------------

ATE	(Acute	Toxicity	Estimates)
-----	--------	----------	------------

Dermal	LD50	6322 mg/kg
Inhalative	LC50/4 h (vapour)	18.5 mg/l

100-41-4		
Oral	LD50	3500 mg/kg (rat)
Dermal	LD50	17800 mg/kg (rabbit)
	•	(Contd. on page 10)

----GB

Printing date 11.12.2014

Version number 2

Revision: 10.12.2014

Trade name: MARISEAL 670

		(Contd. of page 9)
Inhalative	LC50-4h	4000 ppm (rat)
26471-62-5 m-tolylidene diisocyanate		ocyanate
Oral LD50 Dermal LD50		4130 mg/kg (rat)
		>9400 mg/kg (rabbit)
Inhalative	LC50/4 h (vapour)	0.107 mg/l (rat)

· Primary irritant effect:

- on the skin: Irritant to skin and mucous membranes.
- on the eve: Irritating effect.
- · Sensitisation: Sensitisation possible through inhalation.

· Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Harmful

Carcinogenic.

The product can cause inheritable damage.

Sensitisation Sensitization possible through skin contact

SECTION 12: Ecological information

· 12.1 Toxicity

• Aquatic toxicity:

26471-62-5 m-tolylidene diisocyanate

EC50-48h 12.5 mg/l (daphnia magna)

LC50-96h 133 mg/l (Con)

• 12.2 Persistence and degradability No further relevant information available.

- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:

· General notes:

Do not allow product to reach ground water, water course or sewage system.

- · 12.5 Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB**: Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

(Contd. on page 11)

Printing date 11.12.2014

Version number 2

Revision: 10.12.2014

Trade name: MARISEAL 670

(Contd. of page 10)

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods · Recommendation



Dispose according to National Regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

· Uncleaned packaging:

· Recommendation:

Disposal must be made according to official regulations. Packaging may be reused or recycled after cleaning.

14.1 UN-Number		
ADR, ADN, IMDG	Void	
IATA	UN1866	
14.2 UN proper shipping name		
ADR, ADN, IMDG	Void	
ΙΑΤΑ	RESIN SOLUTION	
14.3 Transport hazard class(es)		
ADR, ADN, IMDG		
Class	Void	
ΙΑΤΑ		
Class	3 Flammable liquids.	
Label	3	
14.4 Packing group		
ADR, IMDĞ	Void	
IATA	III	
14.5 Environmental hazards:	Not applicable.	

(CLP) Version number 2

Revision: 10.12.2014

Trade name: MARISEAL 670

Printing date 11.12.2014

(Contd. of page 11) Not applicable. • 14.6 Special precautions for user • 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. · Transport/Additional information: · ADR · Remarks: No goods of grade 3 according to 2.2.3.1.5 ADR and 2.3.2.5 IMDG ADR: Containers >4501 = UN 1866 - 3(F1) -**RESIN SOLUTION**, flammable IMDG: Containers > 30 1 = UN 1866 - 3 (F1) -**RESIN SOLUTION**, flammable Outside ADR/IMDG = UN 1866 - 3 (F1) -**RESIN SOLUTION**, flammable ·IMDG · Remarks: No goods of grade 3 according to 2.2.3.1.5 ADR and 2.3.2.5 IMDG ADR: Containers >450 1 = UN 1866 - 3(F1) -**RESIN SOLUTION**, flammable IMDG: Containers > 301 = UN 1866 - 3 (F1) -**RESIN SOLUTION**, flammable Outside ADR/IMDG = UN 1866 - 3 (F1) -**RESIN SOLUTION**, flammable · UN "Model Regulation":

SECTION 15: Regulatory information

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

The mixture classification is according to CLP Regulation 1272/2008/EC and European Directive 99/45/EC.

- Labelling according to Regulation (EC) No 1272/2008 Label elements in Section 2.2
- · National regulations:
- · Information about limitation of use:

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

(Contd. on page 13)

GB

(CLP)

Printing date 11.12.2014

Version number 2

Revision: 10.12.2014

Trade name: MARISEAL 670

(Contd. of page 12)

· Other regulations, limitations and prohibitive regulations

· Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

	-			
H225	TT' 11	a 11	1 1	ind vapour.
н / / Л	Highly	tiammahla	11/11/1/10/10	nd vonour
$\Pi \angle \angle J$	11121117	панинали	nuulu a	nu vanour.
11220				

- H226 Flammable liquid and vapour.
- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- R11 Highly flammable.
- R20 Harmful by inhalation.
- R20/21 Harmful by inhalation and in contact with skin.
- R22 Harmful if swallowed.
- R26 Very toxic by inhalation.
- R35 Causes severe burns.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R40 Limited evidence of a carcinogenic effect.
- R42/43 May cause sensitisation by inhalation and skin contact.
- R43 May cause sensitisation by skin contact.
- R48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

(Contd. on page 14)

Version number 2 Printing date 11.12.2014 Revision: 10.12.2014 **Trade name: MARISEAL 670** (Contd. of page 13) R50 Very toxic to aquatic organisms. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R65 Harmful: may cause lung damage if swallowed. R67 Vapours may cause drowsiness and dizziness. **Department issuing MSDS:** SUSTCHEM Engineering Ltd **REACH & Chemical Services Department** 144, 3rd Septemvriou, GR 112 51, Athens, Greece Tel.: +30 210 8252510-4 Fax: +30 210 8252575 E-mail: info@suschem.gr Website: www.sustchem.gr Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent Flam. Liq. 2: Flammable liquids, Hazard Category 2 Flam. Liq. 3: Flammable liquids, Hazard Category 3 Met. Corr.1: Corrosive to metals, Hazard Category 1 Acute Tox. 4: Acute toxicity, Hazard Category 4 Acute Tox. 1: Acute toxicity, Hazard Category 1 Acute Tox. 2: Acute toxicity, Hazard Category 2 Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2 Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1 Carc. 2: Carcinogenicity, Hazard Category 2 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3 STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2 Asp. Tox. 1: Aspiration hazard, Hazard Category 1 Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2 Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3 * Data compared to the previous version altered. Classification and labelling according to CLP regulation.