

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH
Regulation, 453/2010/EC and Regulation No 1272/2008/EC
(CLP)

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

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

- **1.1 Product identifier**
- **Trade name:** MARISEAL 710
- **Registration number:** Not applicable-Mixture of substances
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No relevant identified uses the chemical product is exempted from REACH Regulation, 1907/2006/EC.
- **Application of the substance / the mixture** Polyurethane primer
- **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
e-mail: info@marispolymers.gr
website: www.marispolymers.com
- **1.4 Emergency telephone number:** 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.

Carc. 2 H351 Suspected of causing cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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

(Contd. on page 2)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH
Regulation, 453/2010/EC and Regulation No 1272/2008/EC
(CLP)

Printing date 06.11.2014

Version number 1


Revision: 12.09.2014

Trade name: MARISEAL 710

(Contd. of page 1)

STOT SE 3 H335 May cause respiratory irritation.


· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

 Xn; Harmful

R20/21-40-48/20-65: Harmful by inhalation and in contact with skin. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Harmful: may cause lung damage if swallowed.

 Xn; Sensitising

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

 Xi; Irritant

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

R10: Flammable.

· **Classification system:**

The classification of the product is according CLP Regulation 1272/2008/EC and European Directive 99/45/EC.

· **2.2 Label elements**

· **Labelling according to Regulation EC No 1272/2008 CLP**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**

xylene
diphenylmethanediisocyanate, isomeres and homologues
m-tolylidene diisocyanate

· **Hazard statements**

H226 Flammable liquid and vapour.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

(Contd. on page 3)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH
Regulation, 453/2010/EC and Regulation No 1272/2008/EC
(CLP)

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

Trade name: MARISEAL 710

(Contd. of page 2)

H304 May be fatal if swallowed and enters airways.

· **Precautionary statements**

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

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

P201 Obtain special instructions before use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P331 Do NOT induce vomiting.

· **Additional information:**

Contains isocyanates. May produce an allergic reaction.

· **Classification system:**

The classification of the product is according the European Chemicals Agency index, but it is also based to additional scientific bibliography and company data.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterization: Mixtures**

· **Description:** Mixture: consisting of the following components.

· **Dangerous components:**

(Contd. on page 4)


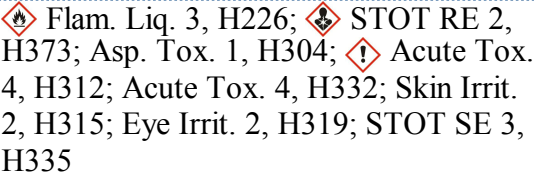
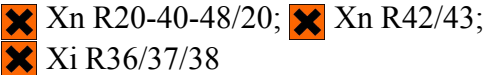
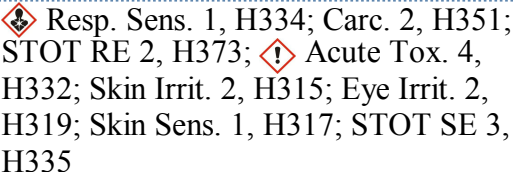


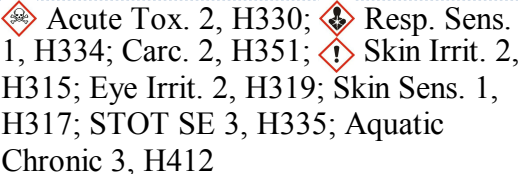
Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH
Regulation, 453/2010/EC and Regulation No 1272/2008/EC
(CLP)

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

Trade name: MARISEAL 710

		(Contd. of page 3)
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32-XXXX	xylene  R10 	25-50%
CAS: 9016-87-9	diphenylmethanediisocyanate, isomeres and homologues  Carc. Cat. 3 	10-<25%
CAS: 108-65-6 EINECS: 203-603-9 Index number: 607-195-00-7 Reg.nr.: 01-2119475791-29-XXXX	2-methoxy-1-methylethyl acetate R10 	10-<25%
CAS: 26471-62-5 EINECS: 247-722-4 Index number: 615-006-00-4 Reg.nr.: 01-2119454791-34-XXXX	m-tolylidene diisocyanate  R52/53 Carc. Cat. 3 	0.3-<1%

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.

Personal protection for the First Aider.

Take affected persons out into the fresh air.

Seek immediate medical advice.

(Contd. on page 5)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH
Regulation, 453/2010/EC and Regulation No 1272/2008/EC
(CLP)

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

Trade name: MARISEAL 710

(Contd. of page 4)

- **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.
 Seek medical treatment in case of complaints.
- **After skin contact:**
 Wash with polyethylene glycol and ethanol (2:1). Then wash thoroughly with water and soap.
 Remove contaminated clothing.
 Seek immediate medical advice.
- **After eye contact:**
 Rinse opened eye for at least 15 minutes under running water.
 Protect unharmed eye.
 Seek immediate medical advice.
- **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.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **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.
 Wear fully protective suit.
- **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**
 Wear protective equipment. Keep unprotected persons away.
 Keep away from ignition sources.
 Avoid contact with spilled material.
 Avoid inhalation of vapors.

(Contd. on page 6)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH
Regulation, 453/2010/EC and Regulation No 1272/2008/EC
(CLP)

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

Trade name: MARISEAL 710

(Contd. of page 5)

Avoid contact with oxidising agents.

Wear protective clothing.

- **6.2 Environmental precautions:** 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).

Ensure adequate ventilation.

- **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

- **Information about fire - and explosion protection:**



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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.

Provide ventilation for receptacles.

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

- **Further information about storage conditions:** Keep container tightly sealed.

- **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 xyleneWEL Short-term value: 441 mg/m³, 100 ppmLong-term value: 220 mg/m³, 50 ppm

Sk; BMGV

(Contd. on page 7)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH
Regulation, 453/2010/EC and Regulation No 1272/2008/EC
(CLP)

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

Trade name: MARISEAL 710

(Contd. of page 6)

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
-----	---

108-65-6 2-methoxy-1-methylethyl acetate

WEL	Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm Sk
-----	--

26471-62-5 m-tolyldiene diisocyanate

WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
-----	---

· Ingredients with biological limit values:**1330-20-7 xylene**

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.
Wash hands before breaks and at the end of work.

· 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

(Contd. on page 8)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH
Regulation, 453/2010/EC and Regulation No 1272/2008/EC
(CLP)

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

Trade name: MARISEAL 710

(Contd. of page 7)

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.

- **Penetration time of glove material**

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.

- **Eye protection:**



Tightly sealed goggles

Face protection

- **Body protection:**



Protective work clothing



Boots

SECTION 9: Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form: Liquid
Colour: According to product specification

- **Odour:** Characteristic

- **Odour threshold:** Not determined

- **pH value:** Not applicable

- **Melting point/Melting range:** Not determined

- **Boiling point/Boiling range:** Not determined

- **Flash point:** Not determined

- **Flammability (solid, gaseous):** Not applicable

- **Ignition temperature:** Not determined

- **Decomposition temperature:** Not determined

- **Self-igniting:** Product is not selfigniting.

(Contd. on page 9)

Safety Data Sheet
 complying with Regulation 1907/2006/EC (REACH)
 Regulation, 453/2010/EC and Regulation No 1272/2008/EC
 (CLP)

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

Trade name: MARISEAL 710

(Contd. of page 8)

· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	0.8 Vol %
Upper:	10.8 Vol %
· Vapour pressure:	Not determined
· Density at 20 °C:	1.0 g/cm ³
· 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/water):	Not determined
· Viscosity:	
Dynamic:	Not determined
Kinematic:	Not determined
· Solvent content:	
VOC (EC)	498 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** Avoid heat, sparkles, naked flame or other sources of ignition.
- **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 values relevant for classification:**

ATE (Acute Toxicity Estimates)

Dermal	LD50	4.985 mg/kg (rabbit)
Inhalative	LC50/4 h/vapours	19.4 mg/l

(Contd. on page 10)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH
Regulation, 453/2010/EC and Regulation No 1272/2008/EC
(CLP)

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

Trade name: MARISEAL 710

(Contd. of page 9)

1330-20-7 xylene		
Dermal	LD50	>1700 mg/kg (rabbit)
9016-87-9 diphenylmethanediisocyanate, isomeres and homologues		
Inhalative	LC50/4 h	0.31 mg/l (rat) (OECD 401)
108-65-6 2-methoxy-1-methylethyl acetate		
Oral	LD50	8532 mg/kg (rat)
26471-62-5 m-tolyldiene diisocyanate		
Oral	LD50	4130 mg/kg (rat)
Dermal	LD50	>9400 mg/kg (rabbit)
Inhalative	LC50/4 h	0.107 mg/l (rat)

- **Primary irritant effect:**
 - **on the skin:** Irritant to skin and mucous membranes.
 - **on the eye:** Irritating effect.
- **Sensitization:**
 - Sensitization possible through inhalation.
 - Sensitization possible through skin contact.
 - Sensitizing effect by skin contact is possible by prolonged exposure.
- **Sensitisation** Sensitization possible through skin contact
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
 - Carc. 2

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

26471-62-5 m-tolyldiene 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.
- **12.5 Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

GB

(Contd. on page 11)

Safety Data Sheet
 complying with Regulation 1907/2006/EC (REACH
 Regulation, 453/2010/EC and Regulation No 1272/2008/EC
 (CLP)

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

Trade name: MARISEAL 710

(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.

SECTION 14: Transport information

· 14.1 UN-Number	
· ADR, IMDG, IATA	UN1866
· 14.2 UN proper shipping name	
· ADR	1993 FLAMMABLE LIQUID, N.O.S.
· IMDG, IATA	(XYLENES, 2-methoxy-1-methylethyl acetate) RESIN SOLUTION
· 14.3 Transport hazard class(es)	
· ADR, IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	
· ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	30

(Contd. on page 12)

Safety Data Sheet
 complying with Regulation 1907/2006/EC (REACH
 Regulation, 453/2010/EC and Regulation No 1272/2008/EC
 (CLP))

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

Trade name: MARISEAL 710

(Contd. of page 11)

· EMS Number:	F-E, <u>S</u> -E
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN1993, FLAMMABLE LIQUID, N.O.S. (XYLENES, 2-methoxy-1-methylethyl acetate), 3, III

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.

REACH Regulation 1907/2006/EC

Regulation 453/2010/EC

CLP Regulation 1272/2008/EC

· **National regulations:**

· **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).

(Contd. on page 13)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH
Regulation, 453/2010/EC and Regulation No 1272/2008/EC
(CLP)

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

Trade name: MARISEAL 710

(Contd. of page 12)

· **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**

- | | |
|-----------|---|
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| 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. |
| H351 | Suspected of causing cancer. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H412 | Harmful to aquatic life with long lasting effects. |
| | |
| R10 | Flammable. |
| R20 | Harmful by inhalation. |
| R20/21 | Harmful by inhalation and in contact with skin. |
| R26 | Very toxic by inhalation. |
| 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. |
| R48/20 | Harmful: danger of serious damage to health by prolonged exposure through inhalation. |
| R52/53 | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R65 | Harmful: may cause lung damage if swallowed. |

· **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

(Contd. on page 14)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH
Regulation, 453/2010/EC and Regulation No 1272/2008/EC
(CLP)

Printing date 06.11.2014

Version number 1

Revision: 12.09.2014

Trade name: MARISEAL 710

(Contd. of page 13)

IATA: International Air Transport Association

GHS: Globally Harmonized 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. 3: Flammable liquids, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 2: Acute toxicity, Hazard Category 2

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 Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

GB