




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

- 1.1 Product identifier:** PUMAFIX TQP
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Miscellaneous. For professional use only.
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:**
Grupo Puma SL
Parque Industrial Trévenez. Calle Conrado del Campo, nº 2
– 1ª Planta
29590 Campanillas - Málaga - Spain
Phone.: +34 901 11 69 12 -
Fax: +34 957 44 19 92
fds@grupopuma.com
www.grupopuma.com
- 1.4 Emergency telephone number:** 901 11 69 12 (Horario de atención: 08:30 – 13:30 y de 16:00 – 19:00)

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) nº1907/2006 (REACH regulation).
Xi: Irritating to eyes and skin, May cause sensitisation by skin contact
- CLP Regulation (EC) nº 1272/2008:**
Classification of this product has been carried out in accordance with CLP Regulation (EC) nº 1272/2008.
Eye Irrit. 2: Eye irritation, Category 2
Skin Sens. 1: Sensitisation, skin, Category 1
- 2.2 Label elements:**
CLP Regulation (EC) nº 1272/2008:
Warning

Hazard statements:
Eye Irrit. 2: Causes serious eye irritation
Skin Sens. 1: May cause an allergic skin reaction
- Precautionary statements:**
Keep out of reach of children
Wear protective gloves/protective clothing/eye protection
In case of inadequate ventilation wear respiratory protection
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
Wash contaminated clothing before reuse
Dispose of the contents/containers in accordance with the current legislation on waste treatment
- Supplementary information:**
Contains 2-hydroxyethyl methacrylate, Dibenzoyl peroxide (M=10). May produce an allergic reaction
- 2.3 Other hazards:**
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical description: Mixture of substances

Components:

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continue)

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

Identification	Chemical name/Classification	Concentration
CAS: 868-77-9 EC: 212-782-2 Index: 607-124-00-X REACH:01-2119490169-29-XXXX	2-hydroxyethyl methacrylate ATP CLP00	5 - <10 %
	Directive 67/548/EC Xi: R36/38, R43 Regulation 1272/2008 Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning	
CAS: 25013-15-4 EC: 246-562-2 Index: Non-applicable REACH:01-2119622074-50-XXXX	Vinyltoluene Self-classified	5 - <10 %
	Directive 67/548/EC N: R51/53; Xi: R36/38; Xn: R20; R10 Regulation 1272/2008 Acute Tox. 4: H332; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Irrit. 2: H315 - Danger	
CAS: 94-36-0 EC: 202-327-6 Index: 617-008-00-0 REACH:01-2119511472-50-XXXX	Dibenzoyl peroxide (M=10) Self-classified	1 - <2 %
	Directive 67/548/EC E: R3; N: R50/53; O: R7; Xi: R36, R43 Regulation 1272/2008 Aquatic Acute 1: H400; Eye Irrit. 2: H319; Org. Perox. B: H241; Skin Sens. 1: H317 - Danger	
CAS: 97-90-5 EC: 202-617-2 Index: 607-114-00-5 REACH:01-2119965172-38-XXXX	Ethylene dimethacrylate ATP CLP00	<1 %
	Directive 67/548/EC Xi: R37, R43 Regulation 1272/2008 Skin Sens. 1: H317; STOT SE 3: H335 - Warning	
CAS: 27813-02-1 EC: 248-666-3 Index: Non-applicable REACH:01-2119490226-37-XXXX	Methacrylic acid, monoester with propane-1,2-diol Self-classified	<1 %
	Directive 67/548/EC Xi: R36, R43 Regulation 1272/2008 Eye Irrit. 2: H319; Skin Sens. 1: H317 - Warning	

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:

This product is not classified as dangerous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

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, containing flammable substances. 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:

Contains substances that may result in explosion caused by heat. In case of fire follow the instructions on the Internal Emergency Plan.

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SECTION 5: FIREFIGHTING MEASURES (continue)

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:

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

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid projections and pulverizations. 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.: 40 °C

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.

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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

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2-hydroxyethyl methacrylate CAS: 868-77-9 EC: 212-782-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1,3 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	4,9 mg/m ³	Non-applicable
Vinyltoluene CAS: 25013-15-4 EC: 246-562-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	37 mg/m ³	37 mg/m ³
Dibenzoyl peroxide (M=10) CAS: 94-36-0 EC: 202-327-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	6,6 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	11,75 mg/m ³	Non-applicable
Ethylene dimethacrylate CAS: 97-90-5 EC: 202-617-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1,3 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2,45 mg/m ³	Non-applicable
Methacrylic acid, monoester with propane-1,2-diol CAS: 27813-02-1 EC: 248-666-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	4,2 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	14,7 mg/m ³	Non-applicable

DNEL (Population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2-hydroxyethyl methacrylate CAS: 868-77-9 EC: 212-782-2	Oral	Non-applicable	Non-applicable	0,83 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,83 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2,9 mg/m ³	Non-applicable
Dibenzoyl peroxide (M=10) CAS: 94-36-0 EC: 202-327-6	Oral	Non-applicable	Non-applicable	1,65 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	3,3 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2,9 mg/m ³	Non-applicable
Ethylene dimethacrylate CAS: 97-90-5 EC: 202-617-2	Oral	Non-applicable	Non-applicable	100 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	100 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1,47 mg/m ³	Non-applicable
Methacrylic acid, monoester with propane-1,2-diol CAS: 27813-02-1 EC: 248-666-3	Oral	Non-applicable	Non-applicable	2,5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	2,5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	8,8 mg/m ³	Non-applicable

PNEC:

Identification					
2-hydroxyethyl methacrylate CAS: 868-77-9 EC: 212-782-2	STP	10 mg/L	Fresh water	0,482 mg/L	
	Soil	0,476 mg/kg	Marine water	0,482 mg/L	
	Intermittent	1 mg/L	Sediment (Fresh water)	3,79 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	3,79 mg/kg	
Vinyltoluene CAS: 25013-15-4 EC: 246-562-2	STP	1 mg/L	Fresh water	0,0498 mg/L	
	Soil	0,133 mg/kg	Marine water	0,002 mg/L	
	Intermittent	0,013 mg/L	Sediment (Fresh water)	0,684 mg/kg	
	Oral	2,5 g/kg	Sediment (Marine water)	0,0684 mg/kg	
Dibenzoyl peroxide (M=10) CAS: 94-36-0 EC: 202-327-6	STP	0,35 mg/L	Fresh water	0,000602 mg/L	
	Soil	0,0758 mg/kg	Marine water	0,000602 mg/L	
	Intermittent	0,000602 mg/L	Sediment (Fresh water)	0,338 mg/kg	
	Oral	6,67 g/kg	Sediment (Marine water)	Non-applicable	

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

Identification				
Ethylene dimethacrylate CAS: 97-90-5 EC: 202-617-2	STP	57 mg/L	Fresh water	0,139 mg/L
	Soil	0,239 mg/kg	Marine water	0,0139 mg/L
	Intermittent	0,15 mg/L	Sediment (Fresh water)	1,6 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,16 mg/kg
Methacrylic acid, monoester with propane-1,2-diol CAS: 27813-02-1 EC: 248-666-3	STP	10 mg/L	Fresh water	0,904 mg/L
	Soil	0,727 mg/kg	Marine water	0,904 mg/L
	Intermittent	0,972 mg/L	Sediment (Fresh water)	6,28 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	6,28 mg/kg



8.2 Exposure controls:

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



As a preventative measure it is recommended to use basic Personal Protection Equipment, with the corresponding <<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 more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.



B.- Respiratory protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours		EN 405:2001+A1:2009	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.



C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Chemical protective gloves		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		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
	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

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

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

Volatil organic compounds:

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


V.O.C. (Supply):	8,3 % weight
V.O.C. density at 20 °C:	83 kg/m ³ (83 g/L)
Average carbon number:	7,5
Average molecular weight:	124,33 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:	Paste
Color:	 Beige
Odor:	Characteristic

Volatility:

Boiling point at atmospheric pressure:	172 °C
Vapour pressure at 20 °C:	Non-applicable *
Vapour pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	Non-applicable *
Relative density at 20 °C:	1,74
Dynamic viscosity at 20 °C:	23000 cP
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	>20,5 cSt
Concentration:	Non-applicable *
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:	Inappreciable in water
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *

Flammability:

Flash Point:	61 °C
Autoignition temperature:	80 °C
Lower flammability limit:	1,1 % Volume
Upper flammability limit:	13,1 % Volume

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.

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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	Precaution	Precaution	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.

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:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes:

Produces eye damage after contact.

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, however it does contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

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SECTION 11: TOXICOLOGICAL INFORMATION (continue)

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
2-hydroxyethyl methacrylate CAS: 868-77-9 EC: 212-782-2	LD50 oral	5050 mg/kg	Rat
	LD50 dermal	3000 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
Methacrylic acid, monoester with propane-1,2-diol CAS: 27813-02-1 EC: 248-666-3	LD50 oral	11200 mg/kg	Rat
	LD50 dermal	5100 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
Vinyltoluene CAS: 25013-15-4 EC: 246-562-2	LD50 oral	5100 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	11 mg/L (4 h) (ATEi)	
Dibenzoyl peroxide (M=10) CAS: 94-36-0 EC: 202-327-6	LD50 oral	7710 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Ethylene dimethacrylate CAS: 97-90-5 EC: 202-617-2	LD50 oral	3300 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	

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
	LC50	EC50		
2-hydroxyethyl methacrylate CAS: 868-77-9 EC: 212-782-2	LC50	227 mg/L (96 h)	Pimephales promelas	Fish
	EC50	Non-applicable		
	EC50	Non-applicable		
Vinyltoluene CAS: 25013-15-4 EC: 246-562-2	LC50	7,6 mg/L (96 h)	Salmo gairdneri	Fish
	EC50	1,3 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	2,6 mg/L (72 h)	Selenastrum capricornutum	Alga
Dibenzoyl peroxide (M=10) CAS: 94-36-0 EC: 202-327-6	LC50	0,0602 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50	0,11 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	0,071 mg/L (72 h)	Pseudokirchneriella subcapitata	Alga
Methacrylic acid, monoester with propane-1,2-diol CAS: 27813-02-1 EC: 248-666-3	LC50	833 mg/L (96 h)	Scophthalmus maximus	Fish
	EC50	210 mg/L (48 h)	Acartia tonsa	Crustacean
	EC50	Non-applicable		

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
	BOD5	COD	Concentration	Period
2-hydroxyethyl methacrylate CAS: 868-77-9 EC: 212-782-2	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	95 %
Dibenzoyl peroxide (M=10) CAS: 94-36-0 EC: 202-327-6	BOD5	Non-applicable	Concentration	Non-applicable
	COD	Non-applicable	Period	10 days
	BOD5/COD	Non-applicable	% Biodegradable	68 %
Methacrylic acid, monoester with propane-1,2-diol CAS: 27813-02-1 EC: 248-666-3	BOD5	Non-applicable	Concentration	Non-applicable
	COD	Non-applicable	Period	Non-applicable
	BOD5/COD	Non-applicable	% Biodegradable	81 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
	BCF	Pow Log
2-hydroxyethyl methacrylate CAS: 868-77-9 EC: 212-782-2	BCF	3
	Pow Log	0,47
	Potential	Low

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SECTION 12: ECOLOGICAL INFORMATION (continue)

Identification	Bioaccumulation potential	
Vinyltoluene CAS: 25013-15-4 EC: 246-562-2	BCF	5
	Pow Log	3,44
	Potential	Low
Methacrylic acid, monoester with propane-1,2-diol CAS: 27813-02-1 EC: 248-666-3	BCF	3
	Pow Log	0,97
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Vinyltoluene CAS: 25013-15-4 EC: 246-562-2	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	32000 N/m (20 °C)	Moist soil	Non-applicable
Dibenzoyl peroxide (M=10) CAS: 94-36-0 EC: 202-327-6	Koc	6309,57	Henry	Non-applicable
	Conclusion	Immobile	Dry soil	Non-applicable
	Surface tension	Non-applicable	Moist soil	Non-applicable
Methacrylic acid, monoester with propane-1,2-diol CAS: 27813-02-1 EC: 248-666-3	Koc	80	Henry	9E-4 Pa·m ³ /mol
	Conclusion	High	Dry soil	Non-applicable
	Surface tension	Non-applicable	Moist soil	Non-applicable

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)
	It is not possible to assign a specific code, as it depends on the intended use by the user	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) 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

This product is not regulated for transport (ADR/RID,IMDG,IATA)

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):

Non-applicable

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SECTION 15: REGULATORY INFORMATION (continue)

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:

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. :

CLP Regulation (EC) n° 1272/2008:

- Hazard statements
- Precautionary statements

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
- R3: Extreme risk of explosion by shock, friction, fire or other sources of ignition
- R36: Irritating to eyes
- R36/38: Irritating to eyes and skin
- R37: Irritating to respiratory system
- R43: May cause sensitisation by skin contact
- R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- R7: May cause fire

CLP Regulation (EC) n° 1272/2008:

- Acute Tox. 4: H332 - Harmful if inhaled
- Aquatic Acute 1: H400 - Very toxic to aquatic life
- 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
- Org. Perox. B: H241 - Heating may cause a fire or explosion
- 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 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:



SECTION 16: OTHER INFORMATION (continue)

- 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 -