




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

- 1.1 Product identifier:** IMPLAREST EP (COMP. A)
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
Relevant uses: Miscellaneous. For professional user 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:**  
**CLP Regulation (EC) No 1272/2008:**  
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.  
Acute Tox. 4: Acute toxicity, Category 4, H312+H332  
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411  
Eye Irrit. 2: Eye irritation, Category 2, H319  
Skin Irrit. 2: Skin irritation, Category 2, H315  
Skin Sens. 1: Sensitisation, skin, Category 1, H317
- 2.2 Label elements:**  
**CLP Regulation (EC) No 1272/2008:**  
**Warning**  
  
**Hazard statements:**  
Harmful in contact with skin or if inhaled  
Toxic to aquatic life with long lasting effects  
Causes serious eye irritation  
Causes skin irritation  
May cause an allergic skin reaction  
**Precautionary statements:**  
Avoid breathing dust/fume/gas/mist/vapours/spray  
Wash thoroughly after handling  
Use only outdoors or in a well-ventilated area  
Wear protective gloves/protective clothing/eye protection/face protection  
IF ON SKIN: Wash with plenty of water  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Dispose of the contents/containers in accordance with the current legislation on waste treatment  
**Supplementary information:**  
Contains epoxy constituents. May produce an allergic reaction  
**Substances that contribute to the classification**  
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700); 1,4-bis(2,3 epoxypropoxy)butane
- 2.3 Other hazards:**  
Product fails to meet PBT/vPvB criteria

\*\* Changes with regards to the previous version

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## IMPLAREST EP (COMP. A)



### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substance:

Non-applicable

#### 3.2 Mixture:

**Chemical description:** Epoxic resin

#### Components:

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

Identification	Chemical name/Classification		Concentration
CAS: 25068-38-6 EC: 500-033-5 Index: 603-074-00-8 REACH: 01-2119456619-26-XXXX	<b>reaction product: bisphenol-A-(epichlorhydrin) (MW &lt; 700) <sup>1</sup></b>	ATP CLP00	<b>25 - &lt;50 %</b>
	Regulation 1272/2008	Aquatic Chronic 2: H411; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning	
CAS: 2425-79-8 EC: 219-371-7 Index: 603-072-00-7 REACH: 01-2119494060-45-XXXX	<b>1,4-bis(2,3 epoxypropoxy)butane <sup>1</sup></b>	ATP CLP00	<b>2,5 - &lt;10 %</b>
	Regulation 1272/2008	Acute Tox. 4: H312+H332; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning	

<sup>1</sup> Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830

To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 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 SDS 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 lukewarm 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, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

##### By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. 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, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

#### 5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

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## SECTION 5: FIREFIGHTING MEASURES (continued)

### 5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). 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. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, 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. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

### 6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

### 6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

### 6.4 Reference to other sections:

See sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

#### A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

#### B.- Technical recommendations for the prevention of fires and explosions

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

#### C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

#### D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

### 7.2 Conditions for safe storage, including any incompatibilities:

#### A.- Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 30 °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 occupational exposure limits for the substances contained in the product

#### DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	8,33 mg/kg	Non-applicable	8,33 mg/kg	Non-applicable
	Inhalation	12,25 mg/m <sup>3</sup>	Non-applicable	12,25 mg/m <sup>3</sup>	Non-applicable
1,4-bis(2,3 epoxypropoxy)butane CAS: 2425-79-8 EC: 219-371-7	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	9,26 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1,63 mg/m <sup>3</sup>	Non-applicable

#### DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	Oral	0,75 mg/kg	Non-applicable	0,75 mg/kg	Non-applicable
	Dermal	3,571 mg/kg	Non-applicable	3,571 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	Non-applicable
1,4-bis(2,3 epoxypropoxy)butane CAS: 2425-79-8 EC: 219-371-7	Oral	Non-applicable	Non-applicable	0,56 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	5,56 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0,48 mg/m <sup>3</sup>	Non-applicable

#### PNEC:

Identification				
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	STP	10 mg/L	Fresh water	0,006 mg/L
	Soil	0,196 mg/kg	Marine water	0,0006 mg/L
	Intermittent	0,018 mg/L	Sediment (Fresh water)	0,996 mg/kg
	Oral	11 g/kg	Sediment (Marine water)	0,0996 mg/kg
1,4-bis(2,3 epoxypropoxy)butane CAS: 2425-79-8 EC: 219-371-7	STP	100 mg/L	Fresh water	0,024 mg/L
	Soil	0,0027 mg/kg	Marine water	0,0024 mg/L
	Intermittent	0,24 mg/L	Sediment (Fresh water)	0,084 mg/kg
	Oral	0,028 g/kg	Sediment (Marine water)	0,0084 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 Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective 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	NON-disposable chemical protective gloves		EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.



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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

"As the product is a mixture of several substances, the resistance of the glove material can not be predicted in advance with total reliability and has therefore to be checked prior to the application"



### D.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face mask		EN 166:2001 EN 167:2001 EN 168:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

### E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks		EN 13034:2005+A1:2009 EN 168:2001 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2001 EN ISO 6530:2005 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk		EN ISO 20345:2011 EN 13832-1:2006	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:

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

### Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	0 % weight
V.O.C. density at 20 °C:	0 kg/m <sup>3</sup> (0 g/L)
Average carbon number:	Non-applicable
Average molecular weight:	Non-applicable

## 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
Colour:	<input type="checkbox"/> White
Odour:	Characteristic
Odour threshold:	Non-applicable *

#### Volatility:

Boiling point at atmospheric pressure:	294 °C
Vapour pressure at 20 °C:	0 Pa

\*Not relevant due to the nature of the product, not providing information property of its hazards.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Vapour pressure at 50 °C: 1 Pa (0 kPa)  
Evaporation rate at 20 °C: Non-applicable \*

### Product description:

Density at 20 °C: 1945 kg/m<sup>3</sup>  
Relative density at 20 °C: 1,945  
Dynamic viscosity at 20 °C: Non-applicable \*  
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 properties: Non-applicable \*  
Decomposition temperature: Non-applicable \*  
Melting point/freezing point: Non-applicable \*  
Explosive properties: Non-applicable \*  
Oxidising properties: Non-applicable \*

### Flammability:

Flash Point: Non Flammable (>60 °C)  
Flammability (solid, gas): Non-applicable \*  
Autoignition temperature: 260 °C  
Lower flammability limit: Non-applicable \*  
Upper flammability limit: Non-applicable \*

### Explosive:

Lower explosive limit: Non-applicable \*  
Upper explosive limit: Non-applicable \*

### 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.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. 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	Not applicable	Not applicable	Not applicable

### 10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

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## SECTION 10: STABILITY AND REACTIVITY (continued)

### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects:

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

#### Dangerous health implications:

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

#### A.- Ingestion (acute effect):

- Acute toxicity : 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.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

#### B- Inhalation (acute effect):

- Acute toxicity : Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: 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.

#### C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

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

- Carcinogenicity: 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.
- Mutagenicity: 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.
- Reproductive toxicity: 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.

#### E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

#### F- Specific target organ toxicity (STOT) - single 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:

- 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.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### H- Aspiration hazard:

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

#### Other information:

Non-applicable

#### Specific toxicology information on the substances:

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## IMPLAREST EP (COMP. A)



### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Identification	Acute toxicity		Genus
1,4-bis(2,3 epoxypropoxy)butane CAS: 2425-79-8 EC: 219-371-7	LD50 oral	3609 mg/kg	Rat
	LD50 dermal	1100 mg/kg (ATEi)	
	LC50 inhalation	11 mg/L (4 h) (ATEi)	

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

#### 12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	LC50	1 - 10 mg/L (96 h)		Fish
	EC50	1 - 10 mg/L		Crustacean
	EC50	1 - 10 mg/L		Algae

#### 12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	0 %

#### 12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	BCF	4
	Pow Log	2.8
	Potential	Low

#### 12.4 Mobility in soil:

Not available

#### 12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

#### 12.6 Other adverse effects:

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
	It is not possible to assign a specific code, as it depends on the intended use by the user	Dangerous

#### Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP4 Irritant — skin irritation and eye damage, HP13 Sensitising

#### 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 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

#### Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

### SECTION 14: TRANSPORT INFORMATION

#### Transport of dangerous goods by land:

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## IMPLAREST EP (COMP. A)



### SECTION 14: TRANSPORT INFORMATION (continued)

With regard to ADR 2017 and RID 2017:



- 14.1 UN number:** UN3082  
**14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) (MW < 700))  
**14.3 Transport hazard class(es):** 9  
**Labels:** 9  
**14.4 Packing group:** III  
**14.5 Environmental hazards:** Yes  
**14.6 Special precautions for user**  
Special regulations: 274, 335, 375, 601  
Tunnel restriction code: Non-applicable  
Physico-Chemical properties: see section 9  
Limited quantities: 5 L  
**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Non-applicable

#### Transport of dangerous goods by sea:

With regard to IMDG 38-16:



- 14.1 UN number:** UN3082  
**14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) (MW < 700))  
**14.3 Transport hazard class(es):** 9  
**Labels:** 9  
**14.4 Packing group:** III  
**14.5 Environmental hazards:** Yes  
**14.6 Special precautions for user**  
Special regulations: 274, 335, 969  
EmS Codes: F-A, S-F  
Physico-Chemical properties: see section 9  
Limited quantities: 5 L  
**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Non-applicable

#### Transport of dangerous goods by air:

With regard to IATA/ICAO 2017:



- 14.1 UN number:** UN3082  
**14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) (MW < 700))  
**14.3 Transport hazard class(es):** 9  
**Labels:** 9  
**14.4 Packing group:** III  
**14.5 Environmental hazards:** Yes  
**14.6 Special precautions for user**  
Physico-Chemical properties: see section 9  
**14.7 Transport in bulk according to Annex II of Marpol 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) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

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## SECTION 15: REGULATORY INFORMATION (continued)

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 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, etc ....):**

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

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

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

**Other legislation:**

The product could be affected by sectorial legislation

### 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) No 1907/2006 (Regulation (EC) No 2015/830)

**Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:**

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

- Precautionary statements
- Supplementary information

**Texts of the legislative phrases mentioned in section 2:**

H315: Causes skin irritation

H319: Causes serious eye irritation

H317: May cause an allergic skin reaction

H411: Toxic to aquatic life with long lasting effects

H312+H332: Harmful in contact with skin or if inhaled

**Texts of the legislative phrases mentioned 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

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

Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled

Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects

Eye Irrit. 2: H319 - Causes serious eye irritation

Skin Irrit. 2: H315 - Causes skin irritation

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

**Classification procedure:**

Skin Irrit. 2: Calculation method

Eye Irrit. 2: Calculation method

Skin Sens. 1: Calculation method

Aquatic Chronic 2: Calculation method

Acute Tox. 4: Calculation method

**Advice related to training:**

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

**Principal bibliographical sources:**

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

**Abbreviations and acronyms:**



**IMPLAREST EP (COMP. A)**



**SECTION 16: OTHER INFORMATION (continued)**

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  
LC50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol–water partition coefficient  
Koc: Partition coefficient of organic carbon

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


- END OF SAFETY DATA SHEET -



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

- 1.1 Product identifier:** IMPLAREST EP (COMP. B)
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
Relevant uses: Miscellaneous. For professional user 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:**  
**CLP Regulation (EC) No 1272/2008:**  
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.  
Acute Tox. 4: Acute toxicity, Category 4, H302+H332  
Skin Corr. 1A: Skin corrosion, Category 1A, H314  
Skin Sens. 1: Sensitisation, skin, Category 1, H317
- 2.2 Label elements:**  
**CLP Regulation (EC) No 1272/2008:**  
**Danger**  
  
**Hazard statements:**  
Harmful if swallowed or if inhaled  
Causes severe skin burns and eye damage  
May cause an allergic skin reaction  
**Precautionary statements:**  
Use only outdoors or in a well-ventilated area  
Wear protective gloves/protective clothing/eye protection/face protection  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
IF ON SKIN: Wash with plenty of water  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a poison center/doctor  
Dispose of the contents/containers in accordance with the current legislation on waste treatment  
**Supplementary information:**  
Corrosive to the respiratory tract  
Contains Amines, polyethylenepoly-, triethylenetetramine fraction, Trientine. May produce an allergic reaction  
**Substances that contribute to the classification**  
Benzyl alcohol; 2,4,6-tris(dimethylaminomethyl)phenol; m-phenylenebis(methylamine); 3-aminopropyldimethylamine
- 2.3 Other hazards:**  
Product fails to meet PBT/vPvB criteria

\*\* Changes with regards to the previous version

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

\*\* Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -

## IMPLAREST EP (COMP. B)



### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS \*\* (continued)

#### 3.1 Substance:














Non-applicable

#### 3.2 Mixture:

**Chemical description:** Mixture of substances

#### Components:

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

Identification	Chemical name/Classification		Concentration
CAS: 100-51-6 EC: 202-859-9 Index: 603-057-00-5 REACH: 01-2119492630-38-XXXX	<b>Benzyl alcohol</b> <sup>1</sup>	ATP CLP00	<b>10 - &lt;25 %</b>
	Regulation 1272/2008	Acute Tox. 4: H302+H332 - Warning 	
CAS: 1477-55-0 EC: 216-032-5 Index: Non-applicable REACH: 01-2119480150-50-XXXX	<b>m-phenylenebis(methylamine)</b> <sup>1</sup>	Self-classified	<b>2,5 - &lt;10 %</b>
	Regulation 1272/2008	Acute Tox. 4: H302+H332; Aquatic Chronic 3: H412; Skin Corr. 1B: H314; Skin Sens. 1B: H317; EUH071 - Danger  	
CAS: 90-72-2 EC: 202-013-9 Index: 603-069-00-0 REACH: 01-2119560597-27-XXXX	<b>2,4,6-tris(dimethylaminomethyl)phenol</b> <sup>1</sup>	ATP CLP00	<b>2,5 - &lt;10 %</b>
	Regulation 1272/2008	Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning 	
CAS: 109-55-7 EC: 203-680-9 Index: Non-applicable REACH: 01-2119486842-27-XXXX	<b>3-aminopropylidimethylamine</b> <sup>1</sup>	ATP CLP00	<b>2,5 - &lt;10 %</b>
	Regulation 1272/2008	Acute Tox. 4: H302; Flam. Liq. 3: H226; Skin Corr. 1B: H314; Skin Sens. 1: H317 - Danger   	
CAS: 90640-67-8 EC: 292-588-2 Index: Non-applicable REACH: 01-2119487919-13-XXXX	<b>Amines, polyethylenepoly-, triethylenetetramine fraction</b> <sup>1</sup>	Self-classified	<b>2,5 - &lt;10 %</b>
	Regulation 1272/2008	Acute Tox. 4: H312; Aquatic Chronic 3: H412; Skin Corr. 1B: H314; Skin Sens. 1: H317 - Danger  	
CAS: 69-72-7 EC: 200-712-3 Index: Non-applicable REACH: 01-2119486984-17-XXXX	<b>Salicylic acid</b> <sup>1</sup>	Self-classified	<b>1 - &lt;2,5 %</b>
	Regulation 1272/2008	Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger  	
CAS: 112-24-3 EC: 203-950-6 Index: 612-059-00-5 REACH: Non-applicable	<b>Trientine</b> <sup>1</sup>	ATP CLP00	<b>&lt;1 %</b>
	Regulation 1272/2008	Acute Tox. 4: H312; Aquatic Chronic 3: H412; Skin Corr. 1B: H314; Skin Sens. 1: H317 - Danger  	

<sup>1</sup> Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830

To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 and 16.

\*\* Changes with regards to the previous version

### SECTION 4: FIRST AID MEASURES

#### 4.1 Description of first aid measures:

Request medical assistance immediately, showing the SDS 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 lukewarm 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, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

##### By ingestion/aspiration:

- CONTINUED ON NEXT PAGE -

## IMPLAREST EP (COMP. B)



### SECTION 4: FIRST AID MEASURES (continued)

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and also risk damage to the respiratory system through inhalation. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Keep the person affected at rest.

#### 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, but the product contains 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:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

#### 5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). 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. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, 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 inert medium. 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:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

#### 6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

#### 6.4 Reference to other sections:

See sections 8 and 13.

### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

- CONTINUED ON NEXT PAGE -

## IMPLAREST EP (COMP. B)



### SECTION 7: HANDLING AND STORAGE (continued)

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 splashes 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.: 30 °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.

### 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 occupational exposure limits for the substances contained in the product

##### DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	47 mg/kg	Non-applicable	9,5 mg/kg	Non-applicable
	Inhalation	450 mg/m <sup>3</sup>	Non-applicable	90 mg/m <sup>3</sup>	Non-applicable
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0,31 mg/m <sup>3</sup>	Non-applicable
3-aminopropyl dimethylamine CAS: 109-55-7 EC: 203-680-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	9,8 mg/m <sup>3</sup>	9,8 mg/m <sup>3</sup>	4,9 mg/m <sup>3</sup>	4,9 mg/m <sup>3</sup>
Amines, polyethylenepoly-, triethylenetetramine fraction CAS: 90640-67-8 EC: 292-588-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,57 mg/kg	Non-applicable
	Inhalation	5380 mg/m <sup>3</sup>	Non-applicable	1 mg/m <sup>3</sup>	Non-applicable
Salicylic acid CAS: 69-72-7 EC: 200-712-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	2 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	16 mg/m <sup>3</sup>	Non-applicable

##### DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	Oral	25 mg/kg	Non-applicable	5 mg/kg	Non-applicable
	Dermal	28,5 mg/kg	Non-applicable	5,7 mg/kg	Non-applicable
	Inhalation	40,55 mg/m <sup>3</sup>	Non-applicable	8,11 mg/m <sup>3</sup>	Non-applicable
Amines, polyethylenepoly-, triethylenetetramine fraction CAS: 90640-67-8 EC: 292-588-2	Oral	20 mg/kg	Non-applicable	0,41 mg/kg	Non-applicable
	Dermal	8 mg/kg	Non-applicable	0,25 mg/kg	Non-applicable
	Inhalation	1600 mg/m <sup>3</sup>	Non-applicable	0,29 mg/m <sup>3</sup>	Non-applicable

- CONTINUED ON NEXT PAGE -



## IMPLAREST EP (COMP. B)



### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Salicylic acid	Oral	4 mg/kg	Non-applicable	1 mg/kg	Non-applicable
CAS: 69-72-7	Dermal	Non-applicable	Non-applicable	1 mg/kg	Non-applicable
EC: 200-712-3	Inhalation	Non-applicable	Non-applicable	4 mg/m <sup>3</sup>	0,2 mg/m <sup>3</sup>

#### PNEC:

Identification					
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	STP	39 mg/L	Fresh water	1 mg/L	
	Soil	0,456 mg/kg	Marine water	0,1 mg/L	
	Intermittent	2,3 mg/L	Sediment (Fresh water)	5,27 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0,527 mg/kg	
m-phenylenebis(methylamine) CAS: 1477-55-0 EC: 216-032-5	STP	10 mg/L	Fresh water	0,094 mg/L	
	Soil	0,045 mg/kg	Marine water	0,0094 mg/L	
	Intermittent	0,152 mg/L	Sediment (Fresh water)	0,43 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0,043 mg/kg	
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	STP	0,2 mg/L	Fresh water	0,084 mg/L	
	Soil	Non-applicable	Marine water	0,0084 mg/L	
	Intermittent	0,84 mg/L	Sediment (Fresh water)	Non-applicable	
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable	
3-aminopropyl dimethylamine CAS: 109-55-7 EC: 203-680-9	STP	69,5 mg/L	Fresh water	0,0535 mg/L	
	Soil	0,0854 mg/kg	Marine water	0,00535 mg/L	
	Intermittent	0,535 mg/L	Sediment (Fresh water)	0,585 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0,0585 mg/kg	
Amines, polyethylenepoly-, triethylenetetramine fraction CAS: 90640-67-8 EC: 292-588-2	STP	4,25 mg/L	Fresh water	0,19 mg/L	
	Soil	19,1 mg/kg	Marine water	0,038 mg/L	
	Intermittent	0,2 mg/L	Sediment (Fresh water)	95,9 mg/kg	
	Oral	0,18 g/kg	Sediment (Marine water)	19,2 mg/kg	
Salicylic acid CAS: 69-72-7 EC: 200-712-3	STP	162 mg/L	Fresh water	0,2 mg/L	
	Soil	0,166 mg/kg	Marine water	0,02 mg/L	
	Intermittent	1 mg/L	Sediment (Fresh water)	1,42 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0,142 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 Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective 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	 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	NON-disposable chemical protective gloves	 CAT III	EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.



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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

"As the product is a mixture of several substances, the resistance of the glove material can not be predicted in advance with total reliability and has therefore to be checked prior to the application"



### D.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face mask	 CAT II	EN 166:2001 EN 167:2001 EN 168:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

### E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks	 CAT III	EN 13034:2005+A1:2009 EN 168:2001 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2001 EN ISO 6530:2005 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk	 CAT III	EN ISO 20345:2011 EN 13832-1:2006	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:

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

### Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	3,86 % weight
V.O.C. density at 20 °C:	39,74 kg/m <sup>3</sup> (39,74 g/L)
Average carbon number:	5
Average molecular weight:	102,2 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:	Fluid
Colour:	Yellowish
Odour:	Aminic
Odour threshold:	Non-applicable *

#### Volatility:

Boiling point at atmospheric pressure:	196 °C
Vapour pressure at 20 °C:	18 Pa

\*Not relevant due to the nature of the product, not providing information property of its hazards.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Vapour pressure at 50 °C:	165 Pa (0 kPa)
Evaporation rate at 20 °C:	Non-applicable *
<b>Product description:</b>	
Density at 20 °C:	1030 kg/m <sup>3</sup>
Relative density at 20 °C:	1,03
Dynamic viscosity at 20 °C:	1200 cP
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
<b>Flammability:</b>	
Flash Point:	110 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	325 °C
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *
<b>Explosive:</b>	
Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *
<b>9.2 Other information:</b>	
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.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. 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
Avoid strong acids	Not applicable	Precaution	Not applicable	Avoid alkalis or strong bases

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## SECTION 10: STABILITY AND REACTIVITY (continued)

### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION \*\*

### 11.1 Information on toxicological effects:

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

#### Dangerous health implications:

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

#### A.- Ingestion (acute effect):

- Acute toxicity : The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

#### B- Inhalation (acute effect):

- Acute toxicity : Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Corrosive to the respiratory tract

#### C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

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

- Carcinogenicity: 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.
- Mutagenicity: 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.
- Reproductive toxicity: 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.

#### E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

#### F- Specific target organ toxicity (STOT) - single 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:

- 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.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### H- Aspiration hazard:

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

#### Other information:

Non-applicable

#### Specific toxicology information on the substances:

## IMPLAREST EP (COMP. B)



### SECTION 11: TOXICOLOGICAL INFORMATION \*\* (continued)

Identification	Acute toxicity		Genus
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	LD50 oral	500 mg/kg	Rat
	LD50 dermal	2500 mg/kg (ATEi)	
	LC50 inhalation	11 mg/L (4 h) (ATEi)	
Amines, polyethylenepoly-, triethylenetetramine fraction CAS: 90640-67-8 EC: 292-588-2	LD50 oral	2505 mg/kg	Rat
	LD50 dermal	1465 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	LD50 oral	1200 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
m-phenylenebis(methylamine) CAS: 1477-55-0 EC: 216-032-5	LD50 oral	1090 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	11 mg/L (4 h) (ATEi)	
3-aminopropyldimethylamine CAS: 109-55-7 EC: 203-680-9	LD50 oral	1870 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Salicylic acid CAS: 69-72-7 EC: 200-712-3	LD50 oral	891 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Trientine CAS: 112-24-3 EC: 203-950-6	LD50 oral	2100 mg/kg	Rat
	LD50 dermal	1100 mg/kg	Rat
	LC50 inhalation	Non-applicable	

\*\* Changes with regards to the previous version

### SECTION 12: ECOLOGICAL INFORMATION \*\*

The experimental information related to the eco-toxicological properties of the product itself is not available

#### 12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	LC50	646 mg/L (48 h)	Leuciscus idus	Fish
	EC50	400 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	79 mg/L (3 h)	Scenedesmus subspicatus	Algae
m-phenylenebis(methylamine) CAS: 1477-55-0 EC: 216-032-5	LC50	88 mg/L (96 h)	Oryzias latipes	Fish
	EC50	15 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	20 mg/L (72 h)	Selenastrum capricornutum	Algae
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	LC50	345 mg/L (96 h)	QSAR	Fish
	EC50	Non-applicable		
	EC50	Non-applicable		
3-aminopropyldimethylamine CAS: 109-55-7 EC: 203-680-9	LC50	122 mg/L (96 h)	Leuciscus idus	Fish
	EC50	68.3 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	56.2 mg/L (72 h)	Scenedesmus subspicatus	Algae
Amines, polyethylenepoly-, triethylenetetramine fraction CAS: 90640-67-8 EC: 292-588-2	LC50	330 mg/L (96 h)	Pimephales promelas	Fish
	EC50	31.1 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	20 mg/L (72 h)	Selenastrum capricornutum	Algae
Trientine CAS: 112-24-3 EC: 203-950-6	LC50	495 mg/L (96 h)	Pimephales promelas	Fish
	EC50	31.1 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		

#### 12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	94 %

\*\* Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



## SECTION 12: ECOLOGICAL INFORMATION \*\* (continued)

Identification	Degradability		Biodegradability	
m-phenylenebis(methylamine)	BOD5	Non-applicable	Concentration	14 mg/L
CAS: 1477-55-0	COD	Non-applicable	Period	28 days
EC: 216-032-5	BOD5/COD	Non-applicable	% Biodegradable	49 %

### 12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
Benzyl alcohol	BCF	0.3
CAS: 100-51-6	Pow Log	1.1
EC: 202-859-9	Potential	Low
m-phenylenebis(methylamine)	BCF	3
CAS: 1477-55-0	Pow Log	0.18
EC: 216-032-5	Potential	Low
2,4,6-tris(dimethylaminomethyl)phenol	BCF	3
CAS: 90-72-2	Pow Log	0.77
EC: 202-013-9	Potential	Low

### 12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Benzyl alcohol	Koc	Non-applicable	Henry	Non-applicable
CAS: 100-51-6	Conclusion	Non-applicable	Dry soil	Non-applicable
EC: 202-859-9	Surface tension	3,679E-2 N/m (25 °C)	Moist soil	Non-applicable
m-phenylenebis(methylamine)	Koc	1300	Henry	Non-applicable
CAS: 1477-55-0	Conclusion	Low	Dry soil	Non-applicable
EC: 216-032-5	Surface tension	Non-applicable	Moist soil	Non-applicable
2,4,6-tris(dimethylaminomethyl)phenol	Koc	15130	Henry	9,312E-12 Pa·m <sup>3</sup> /mol
CAS: 90-72-2	Conclusion	Immobile	Dry soil	No
EC: 202-013-9	Surface tension	Non-applicable	Moist soil	No
Amines, polyethylenepoly-, triethylenetetramine fraction	Koc	1584	Henry	Non-applicable
CAS: 90640-67-8	Conclusion	Low	Dry soil	Non-applicable
EC: 292-588-2	Surface tension	Non-applicable	Moist soil	Non-applicable
Salicylic acid	Koc	Non-applicable	Henry	Non-applicable
CAS: 69-72-7	Conclusion	Non-applicable	Dry soil	Non-applicable
EC: 200-712-3	Surface tension	2,444E-2 N/m (207,25 °C)	Moist soil	Non-applicable
Trientine	Koc	Non-applicable	Henry	Non-applicable
CAS: 112-24-3	Conclusion	Non-applicable	Dry soil	Non-applicable
EC: 203-950-6	Surface tension	4,307E-2 N/m (25 °C)	Moist soil	Non-applicable

### 12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

### 12.6 Other adverse effects:

Not described

\*\* Changes with regards to the previous version

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
	It is not possible to assign a specific code, as it depends on the intended use by the user	Dangerous

#### Type of waste (Regulation (EU) No 1357/2014):

HP6 Acute Toxicity, HP8 Corrosive

#### Waste management (disposal and evaluation):

- CONTINUED ON NEXT PAGE -



## SECTION 13: DISPOSAL CONSIDERATIONS (continued)

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 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

### Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

## SECTION 14: TRANSPORT INFORMATION

### Transport of dangerous goods by land:

With regard to ADR 2017 and RID 2017:



- |   |  |
|---|--|
| <b>14.1 UN number:</b>  | UN1760   |
| <b>14.2 UN proper shipping name:</b>  | CORROSIVE LIQUID, N.O.S. (m-phenylenebis(methylamine)) |
| <b>14.3 Transport hazard class(es):</b>   | 8  |
| Labels:   | 8  |
| <b>14.4 Packing group:</b>  | II   |
| <b>14.5 Environmental hazards:</b>  | No   |
| <b>14.6 Special precautions for user</b>  |  |
| Special regulations:  | 274  |
| Tunnel restriction code:  | E  |
| Physico-Chemical properties:  | see section 9  |
| Limited quantities:   | 1 L  |
| <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b> | Non-applicable   |

### Transport of dangerous goods by sea:

With regard to IMDG 38-16:



- |   |  |
|---|--|
| <b>14.1 UN number:</b>  | UN1760   |
| <b>14.2 UN proper shipping name:</b>  | CORROSIVE LIQUID, N.O.S. (m-phenylenebis(methylamine)) |
| <b>14.3 Transport hazard class(es):</b>   | 8  |
| Labels:   | 8  |
| <b>14.4 Packing group:</b>  | II   |
| <b>14.5 Environmental hazards:</b>  | No   |
| <b>14.6 Special precautions for user</b>  |  |
| Special regulations:  | 274  |
| EmS Codes:  | F-A, S-B   |
| Physico-Chemical properties:  | see section 9  |
| Limited quantities:   | 1 L  |
| <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b> | Non-applicable   |

### Transport of dangerous goods by air:

With regard to IATA/ICAO 2017:

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## SECTION 14: TRANSPORT INFORMATION (continued)



<b>14.1 UN number:</b>	UN1760
<b>14.2 UN proper shipping name:</b>	CORROSIVE LIQUID, N.O.S. (m-phenylenebis(methylamine))
<b>14.3 Transport hazard class(es):</b>	8
Labels:	8
<b>14.4 Packing group:</b>	II
<b>14.5 Environmental hazards:</b>	No
<b>14.6 Special precautions for user</b>	
Physico-Chemical properties:	see section 9
<b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b>	Non-applicable

## SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Salicylic acid (Product-type 2, 3, 4)

REGULATION (EU) No 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, etc ....):**

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

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

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

**Other legislation:**

The product could be affected by sectorial legislation

### 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) No 1907/2006 (Regulation (EC) No 2015/830)

### Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12):

- New declared substances
  - Amines, polyethylenepoly-, triethylenetetramine fraction (90640-67-8)
  - Salicylic acid (69-72-7)

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

- Hazard statements
- Precautionary statements

### Texts of the legislative phrases mentioned in section 2:

H314: Causes severe skin burns and eye damage

H317: May cause an allergic skin reaction

H302+H332: Harmful if swallowed or if inhaled

### Texts of the legislative phrases mentioned in section 3:

\*\* Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



## SECTION 16: OTHER INFORMATION \*\* (continued)

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

### CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H302 - Harmful if swallowed  
Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled  
Acute Tox. 4: H312 - Harmful in contact with skin  
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects  
Eye Dam. 1: H318 - Causes serious eye damage  
Eye Irrit. 2: H319 - Causes serious eye irritation  
Flam. Liq. 3: H226 - Flammable liquid and vapour  
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage  
Skin Irrit. 2: H315 - Causes skin irritation  
Skin Sens. 1: H317 - May cause an allergic skin reaction  
Skin Sens. 1B: H317 - May cause an allergic skin reaction

### Classification procedure:

Skin Corr. 1A: Calculation method  
Skin Sens. 1: Calculation method  
Acute Tox. 4: Calculation method

### Advice related to training:

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

### Principal bibliographical sources:

<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  
LC50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol–water partition coefficient  
Koc: Partition coefficient of organic carbon

*\*\* Changes with regards to the previous version*

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

- END OF SAFETY DATA SHEET -