

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

### 1.1. Product identifier

Mixture identification:

Trade name: IMPLAREST EPW - Comp. A

Registration Number N/A

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Hardener for epoxy products

Uses advised against: N.A.

### 1.3. Details of the supplier of the safety data sheet

Company: GRUPO PUMA SL

AVDA. AGRUPACIÓN CÓRDOBA, NUM. 17

14014 CÓRDOBA - CÓRDOBA - ESPAÑA

Phone.: +34 901 11 69 12 - Fax: +34 957 44 19 92

fds@grupopuma.com

### 1.4. Emergency telephone number

Emergency telephone 901 11 69 12 (Schedule of attention: 08:30 – 13:30 / 16:00 – 19:00)

## SECTION 2: Hazards identification



### 2.1. Classification of the substance or mixture

#### Regulation (EC) n. 1272/2008 (CLP)

Skin Irrit. 2 Causes skin irritation.

Eye Dam. 1 Causes serious eye damage.

Adverse physicochemical, human health and environmental effects:

No other hazards

### 2.2. Label elements

#### Regulation (EC) n. 1272/2008 (CLP)

#### Pictograms and Signal Words



Danger

#### Hazard statements:

H315 Causes skin irritation.

H318 Causes serious eye damage.

#### Precautionary statements:

P264 Wash hands thoroughly after handling.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

#### Contains:

linseed oil, polymer w/bis-A,bis-A diglycidyl ether, diethylenetriamine, formaldehyde, glycidyl Ph ether, pentaethylenehexamine



3,6,9,12-tetra-  
 azatetradecamethylenediamine;  
 pentaethylenehexamine

3,6,9-triazaundecamethylenediamine;  
 tetraethylenepentamine

2,2'-iminodiethylamine; diethylenetriamine

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

No PBT/vPvB Ingredients are present

Other Hazards: No other hazards

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

N.A.

#### 3.2. Mixtures

Mixture identification: IMPLAREST EPW - Comp. A

Hazardous components within the meaning of the CLP regulation and related classification:

Quantity	Name	Ident. Numb.	Classification	Registration Number
≥10 - <20 %	linseed oil, polymer w/bis-A,bis-A diglycidyl ether, diethylenetriamine, formaldehyde, glycidyl Ph ether, pentaethylenehexamine	CAS:68915-81-1	Skin Irrit. 2, H315; Eye Dam. 1, H318	
≥0.1 - <0.25 %	3,6,9,12-tetra-azatetradecamethylenediamine; pentaethylenehexamine	CAS:4067-16-7 EC:223-775-9 Index:612-064-00-2	Skin Corr. 1B, H314; Skin Sens. 1,1A,1B, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
≥0.1 - <0.25 %	acetic acid ... %	CAS:64-19-7 EC:200-580-7 Index:607-002-00-6	Flam. Liq. 3, H226; Skin Corr. 1A, H314	01-2119475328-30-xxxx
≥0.1 - <0.25 %	3,6,9-triazaundecamethylenediamine; tetraethylenepentamine	CAS:112-57-2 EC:203-986-2 Index:612-060-00-0	Skin Corr. 1B, H314; Skin Sens. 1,1A,1B, H317; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312	
≥0.1 - <0.25 %	2,2'-iminodiethylamine; diethylenetriamine	CAS:111-40-0 EC:203-865-4 Index:612-058-00-X	Skin Corr. 1B, H314; Skin Sens. 1,1A,1B, H317; Acute Tox. 4, H302; Acute Tox. 4, H312	01-2119473793-27-0005
≥0.05 - <0.1 %	MORFOLINA	CAS:110-91-8 EC:203-815-1	Flam. Liq. 3, H226; Acute Tox. 3, H311; Acute Tox. 3, H331; Acute Tox. 4, H302; Skin Corr. 1A, H314	01-2119496057-30-XXXX
<0.0015 %	2-METOSSIIETANOLO	CAS:109-86-4 EC:203-713-7	Flam. Liq. 3, H226; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Repr. 1B, H360	

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose of safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

Eye irritation

Eye damages

Skin Irritation

Erythema

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

---

**SECTION 5: Firefighting measures**

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus.

---

**SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

6.4. Reference to other sections

See also section 8 and 13

---

**SECTION 7: Handling and storage**

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular



SECTION 8: Exposure controls/personal protection

8.1. Control parameters

List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour	Note
acetic acid ... %	National	SWEDEN		13	5	25	10		SWEDEN, Short-term value, 15 minutes average value
	National	FINLAND		13	5	25	10		
	National	NORWAY		25	10				
	EU	NNN		25	10				
	National	NORWAY		25	10	50	20		
	ACGIH	NNN			10		15		URT and eye irr, pulm func
	DFG	GERMANY	C			50	20		
	ACGIH				10		15		eye and upper respiratory tract irritation; pulmonary function
	National	SWEDEN		13	5				
	National	FRANCE				25	10		
	National	SPAIN		25	10	50	20		
	National	GREECE		25	10	37	15		
	National	DENMARK		25	10				
	National	GERMANY		25	10				
	National	PORTUGAL		25	10		15		
	National	NORWAY		25	10	37,5	15		
	National	BELGIUM		25	10	38	15		
	NDS	POLAND		25					
	NDSch	POLAND				50			
	CHE	SWITZERLAND				50	20		
	NDS	NETHERLANDS		25		50			
	National	CZECHIA		25					
	National	HUNGARY		25		50			
	Malaysian OEL	MALAYSIA		25	10				
	National	ESTONIA		25	10	25	10		
	National	LATVIA		25	10	50	20		
	National	CZECHIA	C			50			
	National	SLOVAKIA	C			50			
	National	SLOVAKIA		25	10				
	National	SLOVENIA		25	10				
	National	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND		25	10	50	20		
	National	BULGARIA			25	50	20		

Safety Data Sheet  
**IMPLAREST EPW - Comp. A**

Safety Data Sheet dated: 04/02/2020 - version 3



2,2'-iminodiethylamine; diethylenetriamine	National ROMANIA	25	10	50	20	
	TUR TURKEY	25	10			
	National LITHUANIA	25	10	50	20	
	National CROATIA	25	10	50	20	
	EU	25	10			Indicative
	SUVA NNN	4	1			
	NDS NNN	4				
	National SWEDEN	4,5	1	10	2	SWEDEN, Short-term value, 15 minutes average value
	National FINLAND	4,3	1	13	3	FINLAND, hud
	National NORWAY	4	1			NORWAY, HA
	NDSCh NNN	12				
	ACGIH NNN		1			Skin - URT and eye irr
	National NORWAY	4	1	8	2	
	ACGIH		1			Skin - potential significant contribution to overall exposure by the cutaneous route;eye and upper respiratory tract irritation
	National SWEDEN	4,5	1			
	National FRANCE	4	1			
	National SPAIN	4,3	1			
	National GREECE	4	1			
	National DENMARK	4	1			
	National FINLAND	4,3	1	13	3	
National PORTUGAL		1				
National BELGIUM	4,3	1				
NDS POLAND	4					
NDSCh POLAND			12			
National CZECHIA	4					
National HUNGARY	4		4			
Malaysi a OEL MALAYSIA	4,2	1			Skin notation	
National ESTONIA	4,5	1	10	2		
National CZECHIA C			8			
National UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	4,3	1	12,9	3		
National BULGARIA	4,0					
National ROMANIA	2	0,5	4	1		
National LITHUANIA	4,5	1	10	2		
National CROATIA	4,3	1				



MORFOLINA	DFG	GERMANY	C		72	20		
	ACGIH			20				A4 - Not Classifiable as a Human Carcinogen; Skin - potential significant contribution to overall exposure by the cutaneous route; eye damage; upper respiratory tract irritation
	National	SWEDEN		35	10			
	EU			36	10	72	20	Indicative
	National	FRANCE		36	10	72	20	
	National	SPAIN		36	10	72	20	
	National	GREECE		36	10	72	20	
	National	DENMARK		36	10			
	National	FINLAND		36	10	72	20	
	National	GERMANY		36	10			
	National	PORTUGAL		36	10	72	20	
	National	NORWAY		36	10	54	15	
	National	BELGIUM		36	10	72	20	
	NDS	POLAND		36				
	NDSch	POLAND				72		
	CHE	SWITZERLAND				72	20	
	NDS	NETHERLANDS		36		72		
	National	CZECHIA		35				
	National	HUNGARY		36		72		
	Malaysian	MALAYSIA		71	20			Skin notation
	National	ESTONIA		36	10	72	20	
	National	LATVIA		36	10	72	20	
	National	CZECHIA	C			70		
	National	SLOVAKIA	C			72		
	National	SLOVAKIA		36	10			
	National	SLOVENIA		36	10	72	20	
	National	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND		36	10	72	20	
	National	BULGARIA		36,0	10	72,0	20	
	National	ROMANIA		36	10	72	20	
	TUR	TURKEY		36	10	72	20	
	National	LITHUANIA		36	10	72	20	
	National	CROATIA		36	10	72	20	
2-METOSSJETANOLO	DFG	GERMANY	C			25,6	8	
	ACGIH			0,1				Skin - potential significant



National FRANCE	3,2	1			contribution to overall exposure by the cutaneous route; hematologic and reproductive effects:
National SPAIN	3	1			
National GREECE		1			
National DENMARK		1			
National FINLAND	1,6	0,5			
National GERMANY	3,2	1			
National PORTUGAL		1			
National NORWAY	3,1	1	6,2	2	
National BELGIUM	0,3	0,1			
NDS POLAND	3				
CHE SWITZERLAND			25,6	8	
NDS NETHERLANDS	0,5				
National CZECHIA	3				
National HUNGARY	3,16				
Malaysi a OEL MALAYSIA	16	5			Skin notation;
National ESTONIA	16	5	30	10	
National LATVIA		1			
National CZECHIA C			30		
National SLOVAKIA C			128		
National SLOVAKIA	16	5			
National SLOVENIA	3	1			
National UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	3	1	9	3	
National BULGARIA		1			
National ROMANIA	3,2	1			
TUR TURKEY		1			
National LITHUANIA		1	30	10	
National CROATIA		1			
EU		1			Indicative Possibility of significant uptake through the skin;
ACGIH		0,1			Skin - potential significant contribution to overall exposure by the cutaneous route; hematologic and reproductive effects



National SWEDEN				1		
Malaysi a OEL	MALAYSIA	16		5		Skin notation
National ESTONIA				1		
National CZECHIA	C				6	
National SLOVAKIA				5		
EU				1		Indicative Possibility of significant uptake through the skin

Biological Exposure Index

CAS-No.	Component	Value	UoM	Medium	Biological Indicator	Sampling Period
109-86-4	2-METOSSIIETANOL O	1	MGGCREAT	Urine	Acid 2-Methoxyacetic	End of turn; End of working week

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC LIMIT	Exposure Route	Exposure Frequency	Remark
acetic acid ... %	64-19-7	0,3058	Marine water		
		30,58	Intermittent release		
		1,136	Marine water sediments		
		0,478	Soil		
		3,058	Fresh Water		
3,6,9-triazaundecamethylenedia mine; tetraethylenepentamine	112-57-2	0,00068	Fresh Water		
		0,00068	Marine water		
		3,34	Freshwater sediments		
		0,343	Marine water sediments		
		0,683	Soil		

Derived No Effect Level. (DNEL)

Component	CAS-No.	Worker Industr y	Worker Profess ional	Consu mer	Exposure Route	Exposure Frequency	Remark
acetic acid ... %	64-19-7	25			Human Inhalation	Short Term, local effects	
		25			Human Inhalation	Long Term, local effects	
				25	Human Inhalation	Short Term, local effects	
				25	Human Inhalation	Long Term, local effects	



3,6,9-triazaundecamethylene nediamine; tetraethylenepentamine	112-57-2	10 mg/kg	Human Dermal	Short Term, systemic effects
		0,74 mg/kg	Human Dermal	Long Term, systemic effects
		0,32 mg/kg	Human Dermal	Long Term, systemic effects
		0,53 mg/kg	Human Oral	Long Term, systemic effects
		0,00129 mg/l	Human Inhalation	Long Term, systemic effects
		0,00038 mg/l	Human Inhalation	Long Term, systemic effects

## 8.2. Exposure controls

### Eye protection:

Use close fitting safety goggles, don't use eye lens.

### Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

### Protection for hands:

Suitable materials for safety gloves; EN 374:

Polychloroprene - CR: thickness  $\geq 0,5$ mm; breakthrough time  $\geq 480$ min.

Nitrile rubber - NBR: thickness  $\geq 0,35$ mm; breakthrough time  $\geq 480$ min.

Butyl rubber - IIR: thickness  $\geq 0,5$ mm; breakthrough time  $\geq 480$ min.

Fluorinated rubber - FKM: thickness  $\geq 0,4$ mm; breakthrough time  $\geq 480$ min.

Neoprene gloves are suggested (0,5 mm) not recommended gloves: not waterproof gloves

### Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN 374 for gloves and EN 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

### Hygienic and Technical measures

N.A.

### Appropriate engineering controls:

N.A.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: Viscous yellow

Odour: like: Ammonia

Odour threshold: N.A.

pH: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range:  $> 200$  °C (392 °F)

Flash point:  $> 100$  °C (212 °F)

Evaporation rate: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 1.05 g/cm<sup>3</sup>

Solubility in water: Soluble

Partition coefficient (n-octanol/water): N.A. - This product is a mixture

Auto-ignition temperature: N.A. - No explosive or spontaneous ignition in contact with air at room temperature

Decomposition temperature: N.A.

Viscosity: 10,000.00 cPs

Explosive properties: N.A. - No components with explosive properties

Oxidizing properties: N.A. - No component with oxidizing properties

Solid/gas flammability: N.A.

### 9.2. Other information

No additional information

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions

### 10.2. Chemical stability

Stable under normal conditions

### 10.3. Possibility of hazardous reactions

None.

### 10.4. Conditions to avoid

Stable under normal conditions.

### 10.5. Incompatible materials

None in particular.

### 10.6. Hazardous decomposition products

None.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Toxicological information of the mixture:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information on main components of the mixture:

3,6,9,12-tetra- azatetradecamethylenedi amine; pentachylenehexamine	a) acute toxicity	LD50 Oral Rat = 1600 mg/kg
acetic acid ... %	a) acute toxicity	LD50 Oral Rat 3310 mg/kg LC50 Inhalation Rat > 40000 mg/m <sup>3</sup> 4h LD50 Skin Rabbit = 1060 mg/kg LC50 Inhalation Rat = 11,4 mg/l 4h LD50 Oral Rat = 3310 mg/kg
3,6,9- trizaundecamethylenedia mine; tetraethylenepentamine	a) acute toxicity	LD50 Oral Rat = 3990 mg/kg  LD50 Skin Rabbit = 660 mg/kg LD50 Skin Rabbit = 660 µL/kg LD50 Oral Rat = 3990 mg/kg
	b) skin corrosion/irritation	Skin Sensitization Rabbit Positive
2,2'-iminodiethylamine; diethylenetriamine	a) acute toxicity	LD50 Skin Rabbit = mg/kg  LC50 Inhalation Rat = 1,8 mg/l LD50 Oral Rat = mg/kg LD50 Skin Rabbit = 672 mg/kg LC50 Inhalation Rat = 70 mg/l 4h LD50 Oral Rat = 1080 mg/kg
MORFOLINA	a) acute toxicity	LD50 Skin Rabbit 310 mg/kg LC50 Inhalation Rat > 8000 ppm 8h LD50 Oral Rat = 1050 mg/kg
2-METOSSJETANOLO	a) acute toxicity	LD50 Skin Rabbit = 1280 mg/kg LC50 Inhalation Rat = 1478 ppm 7h LD50 Oral Rat = 2370 mg/kg



If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- k) Toxicological kinetics, metabolism and distribution information
- i) STOT-repeated exposure
- j) aspiration hazard

## SECTION 12: Ecological information

### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of components with eco-toxicological properties

Component	Ident. Numb.	Ecotox Infos
acetic acid ... %	CAS: 64-19-7 - EINECS: 200-580-7 - INDEX: 607-002-00-6	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 79 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 75 mg/L 96h EPA
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 65 mg/L 48h EPA
3,6,9-triazaundecamethylenediamine; tetraethylenepentamine	CAS: 112-57-2 - EINECS: 203-986-2 - INDEX: 612-060-00-0	a) Aquatic acute toxicity : LC50 Fish = 310 mg/L 96
		a) Aquatic acute toxicity : EC50 Daphnia = 24,1 mg/L 48
		a) Aquatic acute toxicity : EC50 Algae > 2,1 mg/L 72
		a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata = 420 mg/L 96h IUCLID
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 24,1 mg/L 48h IUCLID
		a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 2,1 mg/L 72h IUCLID
2,2'-iminodiethylamine; diethylenetriamine	CAS: 111-40-0 - EINECS: 203-865-4 - INDEX: 612-058-00-X	a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata = 248 mg/L 96h IUCLID
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 16 mg/L 48h IUCLID
		a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 1164 mg/L 72h IUCLID
		a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 592 mg/L 96h IUCLID
		a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata = 1014 mg/L 96h EPA
		a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 345,6 mg/L 96h EPA
MORFOLINA	CAS: 110-91-8 - EINECS: 203-815-1	a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 350 mg/L 96h EPA

- a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 375 mg/L 96h EPA  
a) Aquatic acute toxicity : LC50 Fish Brachydanio rerio > 1000 mg/L 96h IUCLID  
a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 28 mg/L 96h EPA
- 2-METOSSJETANOLO CAS: 109-86-4 - a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 10000 mg/L 96h EPA  
EINECS: 203-713-7
- a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 9650 mg/L 96h IUCLID  
a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 16000 mg/L 96h IUCLID
- 12.2. Persistence and degradability  
N.A.
- 12.3. Bioaccumulative potential  
N.A.
- 12.4. Mobility in soil  
N.A.
- 12.5. Results of PBT and vPvB assessment  
No PBT/vPvB Ingredients are present
- 12.6. Other adverse effects  
N.A.

---

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

A waste code according to European waste catalogue (EWC) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

#### Product:

Do not dispose of waste into sewers.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Send to an authorized waste disposal service.

#### Contaminated packaging:

Empty remaining content.

Dispose of as unused product.

Do not re-use empty containers.

---

## SECTION 14: Transport information

### 14.1. UN number

N/A

### 14.2. UN proper shipping name

ADR-Shipping Name: N/A

IATA-Technical name: N/A

IMDG-Technical name: N/A

### 14.3. Transport hazard class(es)

ADR-Class: N/A

IATA-Class: N/A

IMDG-Class: N/A

### 14.4. Packing group

ADR-Packing Group: N/A

IATA-Packing group: N/A

IMDG-Packing group: N/A

### 14.5. Environmental hazards

Marine pollutant: No

Environmental Pollutant: No

### 14.6. Special precautions for user



Road and Rail (ADR-RID):

ADR-Label: N/A  
ADR-Hazard identification number: N/A  
ADR-Special Provisions: N/A  
ADR-Transport category (Tunnel restriction code): N/A

Air (IATA):

IATA-Passenger Aircraft: N/A  
IATA-Cargo Aircraft: N/A  
IATA-Label: N/A  
IATA-Subsidiary hazards: N/A  
IATA-Erg: N/A  
IATA-Special Provisions: N/A

Sea (IMDG):

IMDG-Stowage Code: N/A  
IMDG-Stowage Note: N/A  
IMDG-Subsidiary hazards: N/A  
IMDG-Special Provisions: N/A  
IMDG-Page: N/A  
IMDG-Label: N/A  
IMDG-EMS: N/A  
IMDG-MFAG: N/A

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

N.A.

---

**SECTION 15: Regulatory information**

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

VOC (2004/42/EC) : N.A.

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EU) 2015/830

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Provisions related to directive EU 2012/18 (Seveso III):

N.A.

German Water Hazard Class

N.A.

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3, 40

Restrictions related to the substances contained: None

SVHC Substances:

No Data Available

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

---

**SECTION 16: Other information**

Code	Description
H226	Flammable liquid and vapour.

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H360	May damage fertility or the unborn child .
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.1/3/Dermal	Acute Tox. 3	Acute toxicity (dermal), Category 3
3.1/3/Inhal	Acute Tox. 3	Acute toxicity (inhalation), Category 3
3.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/1A	Skin Corr. 1A	Skin corrosion, Category 1A
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.4.2/1-1A-1B	Skin Sens. 1,1A,1B	Skin Sensitisation, Category 1,1A,1B
3.7/1B	Repr. 1B	Reproductive toxicity, Category 1B
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/C1	Aquatic Chronic 1	Chronic (long term) aquatic hazard, category 1
4.1/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
3.2/2	Calculation method
3.3/1	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center  
CE: European Community  
CLP: Classification, Labeling, Packaging.  
CMR: Carcinogenic, Mutagenic and Reprotoxic  
COD: Chemical Oxygen Demand  
COV: Volatile Organic Compound  
CSA: Chemical Safety Assessment  
CSR: Chemical Safety Report  
DMEL: Derived Minimal Effect Level  
DNEL: Derived No Effect Level.  
DPD: Dangerous Preparations Directive  
DSD: Dangerous Substances Directive  
EC50: Half Maximal Effective Concentration  
ECHA: European Chemicals Agency  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
ES: Exposure Scenario  
GefStoffVO: Ordinance on Hazardous Substances, Germany.  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association.  
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
IC50: half maximal inhibitory concentration  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO). IMDG:  
International Maritime Code for Dangerous Goods.  
INCI: International Nomenclature of Cosmetic Ingredients.  
IRCCS: Scientific Institute for Research, Hospitalization and Health Care  
KSt: Explosion coefficient.  
LC50: Lethal concentration, for 50 percent of test population.  
LD50: Lethal dose, for 50 percent of test population.  
LDLo: Leathal Dose Low  
N.A.: Not Applicable  
N/A: Not Applicable  
N/D: Not defined/ Not available  
NA: Not available  
NIOSH: National Institute for Occupational Safety and Health  
NOAEL: No Observed Adverse Effect Level  
OSHA: Occupational Safety and Health Administration.  
PBT: Persistent, Bioaccumulative and Toxic  
PGK: Packaging Instruction  
PNEC: Predicted No Effect Concentration.  
PSG: Passengers  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
STEL: Short Term Exposure limit.  
STOT: Specific Target Organ Toxicity.  
TLV: Threshold Limiting Value.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).  
vPvB: Very Persistent, Very Bioaccumulative.  
WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- 2. HAZARDS IDENTIFICATION

---

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

### 1.1. Product identifier

Mixture identification:

Trade name: IMPLAREST EPW - Comp. B

Registration Number N/A

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Epoxy resins

Uses advised against: N.A.

### 1.3. Details of the supplier of the safety data sheet

Company: **GRUPO PUMA SL**

AVDA. AGRUPACIÓN CÓRDOBA, NUM. 17

14014 CÓRDOBA - CÓRDOBA - ESPAÑA

Phone.: +34 901 11 69 12 - Fax: +34 957 44 19 92

fds@grupopuma.com

<http://www.grupopuma.com>

### 1.4. Emergency telephone number

Emergency telephone 901 11 69 12 (Schedule of attention: 08:30 – 13:30 / 16:00 – 19:00)

---

## SECTION 2: Hazards identification



### 2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Skin Irrit. 2 Causes skin irritation.

Eye Irrit. 2 Causes serious eye irritation.

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

Aquatic Chronic 2 Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

### 2.2. Label elements

Regulation (EC) n. 1272/2008 (CLP)

Pictograms and Signal Words



Warning

Hazard statements:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

Special Provisions:

EUH208 Contains reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700). May produce an allergic reaction.

EUH208 Contains oxirane, mono[(C12-14-alkyloxy)methyl] derivs.. May produce an allergic reaction.

EUH205 Contains epoxy constituents. May produce an allergic reaction.

Contains:

bisphenol F - epoxy resin

Special provisions according to Annex XVII of REACH and subsequent amendments:



None

### 2.3. Other hazards

No PBT/vPvB Ingredients are present

Other Hazards: No other hazards

This preparation contains low molecular weight epoxy resins. Cross sensitisation to other epoxies is possible. Avoid also exposure to spray mist and vapour.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

N.A.

### 3.2. Mixtures

Mixture identification: IMPLAREST EPW - Comp. B

Hazardous components within the meaning of the CLP regulation and related classification:

Quantity	Name	Ident. Numb.	Classification	Registration Number
≥50 - <75 %	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	CAS:25068-38-6 EC:500-033-5 Index:603-074-00-8	Eye Irrit. 2, H319; Skin Irrit. 2, H315; Skin Sens. 1,1A,1B, H317; Aquatic Chronic 2, H411	01-2119456619-26-xxxx
≥10 - <20 %	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	CAS:68609-97-2 EC:271-846-8 Index:603-103-00-4	Skin Irrit. 2, H315; Skin Sens. 1, H317	01-2119485289-22-XXXX
≥10 - <20 %	bisphenol F - epoxy resin	CAS:9003-36-5 EC:500-006-8	Skin Irrit. 2, H315; Skin Sens. 1A, H317; Aquatic Chronic 2, H411	01-2119454392-40-XXXX

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose of safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

### 4.2. Most important symptoms and effects, both acute and delayed

Eye irritation

Eye damages

Skin Irritation

Erythema

### 4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons:

None in particular.

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



Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus.

**SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

6.4. Reference to other sections

See also section 8 and 13

**SECTION 7: Handling and storage**

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

**SECTION 8: Exposure controls/personal protection**

8.1. Control parameters

List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour	Note
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)	National	BULGARIA		1,0					

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC LIMIT	Exposure Route	Exposure Frequency	Remark
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)	25068-38-6	0,006 mg/l	Fresh Water		
		0,0006 mg/l	Marine water		

Safety Data Sheet  
**IMPLAREST EPW - Comp. B**

Safety Data Sheet dated: 04/02/2020 - version 3



		0,0627	Freshwater
		mg/kg	sediments
		0,00627	Marine water
		mg/kg	sediments
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	0,00072	Marine water
		mg/l	
		0,0072	Fresh Water
		mg/l	
		66,77	Freshwater
		mg/kg	sediments
		6,677	Marine water
		mg/kg	sediments
		80,12	Soil
		mg/kg	
		10 mg/l	Microorganisms
			in sewage
			treatments
bisphenol F - epoxy resin	9003-36-5	10 mg/l	Microorganisms
			in sewage
			treatments
		0,003	Fresh Water
		mg/l	
		0,294	Freshwater
		mg/kg	sediments
		0,0003	Marine water
		mg/l	
		0,0294	Marine water
		mg/kg	sediments
		0,237	Soil
		mg/kg	

Derived No Effect Level. (DNEL)

Component	CAS-No.	Worker Industr y	Worker Profess ional	Consu mer	Exposure Route	Exposure Frequency	Remark
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700)	25068-38-6	8,3			Human Dermal	Short Term, systemic effects	
					Human Inhalation	Short Term, systemic effects	
					Human Dermal	Long Term, systemic effects	
					Human Inhalation	Long Term, systemic effects	
					Human Dermal	Short Term, systemic effects	
					Human Oral	Short Term, systemic effects	
					Human Dermal	Long Term, systemic effects	
					Human Oral	Long Term, systemic effects	

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Suitable materials for safety gloves; EN 374:

Polychloroprene - CR: thickness  $\geq 0,5\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Nitrile rubber - NBR: thickness  $\geq 0,35\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Butyl rubber - IIR: thickness  $\geq 0,5\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Fluorinated rubber - FKM: thickness  $\geq 0,4\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Neoprene gloves are suggested (0,5 mm) not recommended gloves: not waterproof gloves

Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN 374 for gloves and EN 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

In case of insufficient ventilation use mask with ABEKP filters (EN 14387).

Hygienic and Technical measures

N.A.

Appropriate engineering controls:

N.A.

---

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: Viscous blue

Odour: characteristic

Odour threshold: N.A.

pH: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range:  $> 100\text{ }^\circ\text{C}$  (212  $^\circ\text{F}$ )

Flash point:  $\geq 130\text{ }^\circ\text{C}$  (266  $^\circ\text{F}$ )

Evaporation rate: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 11.00 g/cm<sup>3</sup>

Solubility in water: N.A.

Partition coefficient (n-octanol/water): N.A. - This product is a mixture

Auto-ignition temperature: N.A. - No explosive or spontaneous ignition in contact with air at room temperature

Decomposition temperature: N.A.

Viscosity: 850.00 PA-s

Explosive properties: N.A. - No components with explosive properties

Oxidizing properties: N.A. - No component with oxidizing properties

Solid/gas flammability: N.A.

9.2. Other information

No additional information

---

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

---

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the mixture:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information on main components of the mixture:

reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700)	a) acute toxicity	LD50 Oral Rat > 15000 mg/kg  LD50 Skin Rabbit > 23000 mg/kg LD50 Oral Rat = 11400 mg/kg NOAEL Oral Rat = 50 mg/kg  NOAEL Skin Rat = 100 mg/kg
	i) STOT-repeated exposure	
oxirane, mono[(C12-14- alkyloxy)methyl] derivs.	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg  LD50 Skin Rabbit > 3987 mg/kg LD50 Oral Rat = 17100 mg/kg
bisphenol F - epoxy resin	a) acute toxicity	LD50 Oral Rat > 10000 mg/kg LD50 Skin Rat > 2000 mg/kg LD50 Oral Rat > 2 g/kg  NOAEL Oral = 250 mg/kg
	i) STOT-repeated exposure	

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- k) Toxicological kinetics, metabolism and distribution information
- i) STOT-repeated exposure
- j) aspiration hazard

**SECTION 12: Ecological information**

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

List of components with eco-toxicological properties

Component	Ident. Numb.	Ecotox Infos
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700)	CAS: 25068-38-6 - EINECS: 500-033-5 - INDEX: 603-074-00-8	a) Aquatic acute toxicity : LC50 Fish > 2 mg/L 96  a) Aquatic acute toxicity : EC50 Daphnia > 1,8 mg/L 48 a) Aquatic acute toxicity : LC50 Algae > 11 mg/L 72

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	CAS: 68609-97-2 - EINECS: 271-846-8 - INDEX: 603-103-00-4	a) Aquatic acute toxicity : LC50 Daphnia = 1,3 mg/L 96
		b) Aquatic chronic toxicity : NOEC Daphnia = 0,3 mg/L
bisphenol F - epoxy resin	CAS: 9003-36-5 - EINECS: 500-006-8	a) Aquatic acute toxicity : EC50 Daphnia = 7,20000 mg/L 48
		a) Aquatic acute toxicity : EC50 Algae = 844,00000 mg/L 72
		a) Aquatic acute toxicity : LC50 Fish > 1800,00000 mg/L 96
		a) Aquatic acute toxicity : EC50 Fish = 2,54 mg/L 96
		a) Aquatic acute toxicity : EC50 Daphnia = 2,55 mg/L 48

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT/vPvB Ingredients are present

12.6. Other adverse effects

N.A.

---

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

A waste code according to European waste catalogue (EWC) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

Product:

Do not dispose of waste into sewers.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Send to an authorized waste disposal service.

Contaminated packaging:

Empty remaining content.

Dispose of as unused product.

Do not re-use empty containers.

---

SECTION 14: Transport information

14.1. UN number

3082

14.2. UN proper shipping name

ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

IATA-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

IMDG-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es)

ADR-Class: 9

IATA-Class: 9

IMDG-Class: 9

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Marine pollutant: Yes

Environmental Pollutant: Yes

14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR-Label: 9  
ADR-Hazard identification number: 90  
ADR-Special Provisions: 274 335 375 601  
ADR-Transport category (Tunnel restriction code): 3 (-)

Air (IATA):

IATA-Passenger Aircraft: 964  
IATA-Cargo Aircraft: 964  
IATA-Label: 9  
IATA-Subsidiary hazards: -  
IATA-Erg: 9L  
IATA-Special Provisions: A97 A158 A197

Sea (IMDG):

IMDG-Stowage Code: Category A  
IMDG-Stowage Note: -  
IMDG-Subsidiary hazards: -  
IMDG-Special Provisions: 274 335 969  
IMDG-Page: N/A  
IMDG-Label: N/A  
IMDG-EMS: F-A, S-F  
IMDG-MFAG: N/A

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

N.A.

These substances, when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids, or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to provisions of ADR, IMDG and IATA DGR.

---

SECTION 15: Regulatory information

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

VOC (2004/42/EC) : N.A.

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EU) 2015/830

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
Products belongs to category E2	200	500

German Water Hazard Class

N.A.

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3

Restrictions related to the substances contained: None

SVHC Substances:

No Data Available

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

## SECTION 16: Other information

Code	Description
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1-1A-1B	Skin Sens. 1,1A,1B	Skin Sensitisation, Category 1,1A,1B
3.4.2/1A	Skin Sens. 1A	Skin Sensitisation, Category 1A
4.1/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
3.2/2	Calculation method
3.3/2	Calculation method
3.4.2/1A	Calculation method
4.1/C2	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association.  
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
IC50: half maximal inhibitory concentration  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO). IMDG:  
International Maritime Code for Dangerous Goods.  
INCI: International Nomenclature of Cosmetic Ingredients.  
IRCCS: Scientific Institute for Research, Hospitalization and Health Care  
KSt: Explosion coefficient.  
LC50: Lethal concentration, for 50 percent of test population.  
LD50: Lethal dose, for 50 percent of test population.  
LDLo: Leathal Dose Low  
N.A.: Not Applicable  
N/A: Not Applicable  
N/D: Not defined/ Not available  
NA: Not available  
NIOSH: National Institute for Occupational Safety and Health  
NOAEL: No Observed Adverse Effect Level  
OSHA: Occupational Safety and Health Administration.  
PBT: Persistent, Bioaccumulative and Toxic  
PGK: Packaging Instruction  
PNEC: Predicted No Effect Concentration.  
PSG: Passengers  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
STEL: Short Term Exposure limit.  
STOT: Specific Target Organ Toxicity.  
TLV: Threshold Limiting Value.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).  
vPvB: Very Persistent, Very Bioaccumulative.  
WGK: German Water Hazard Class.