19270-B - Rocathaan Hotspray PA 270-FR - Base

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

1.1 Product identifier: 19270-B - Rocathaan Hotspray PA 270-FR - Base

Other means of identification:

Not relevant

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

Relevant uses: Base for Hotspray. For professional users 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:

Prokol Protective Coatings
Duizeldonksestraat 44
5705 CA Helmond - Noord-Brabant - Nederland
Phone: +31 (0) 85 78 200 20
sds@prokol.nl
www.prokol.com

1.4 Emergency telephone number: +31 (0) 85 78 200 20 Mon - Fri 8am - 4.45pm

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):

Classification of this product has been carried out in accordance with GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567).
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1C: Skin corrosion, Category 1C, H314
Skin Sens. 1A: Sensitisation, skin, Category 1A, H317
STOT RE 2: Specific target organ toxicity, repeated exposure, Category 2, H373

2.2 Label elements:

GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):

Danger

Hazard statements:

Acute Tox. 4: H302 - Harmful if swallowed.
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.
Skin Corr. 1C: H314 - Causes severe skin burns and eye damage.
Skin Sens. 1A: H317 - May cause an allergic skin reaction.
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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/doctor.
P501: Dispose of the contents and/or its container in line with regulations on dangerous waste or packaging and waste packaging respectively.

Supplementary information:

Contains 3-aminopropyltriethoxysilane, 4-morpholinecarbaldehyde, C9-C11 Aliphatic polyether.

Substances that contribute to the classification

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SECTION 2: HAZARDS IDENTIFICATION (continued)

Poly[oxy(methyl-1,2-ethanediyl)],a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)-; Diethylmethylbenzenediamine; Glycerylpoly(oxypropeen)triamine; maleic anhydride

2.3 Other hazards:

Product does not meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Formulated polyamines

Components:

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 9046-10-0	**Poly[oxy(methyl-1,2-ethanediyl)],a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)-** Acute Tox. 4: H302; Aquatic Chronic 3: H412; Eye Dam. 1: H318; Skin Corr. 1C: H314 - Danger	**25 - <50 %**
CAS: 68479-98-1	**Diethylmethylbenzenediamine** Acute Tox. 4: H302+H312; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Irrit. 2: H319; STOT RE 2: H373 - Warning	**10 - <25 %**
CAS: 64852-22-8	**Glycerylpoly(oxypropeen)triamine** Aquatic Chronic 3: H412; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	**5 - <10 %**
CAS: 919-30-2	**3-aminopropyltriethoxysilane** Acute Tox. 4: H302; Skin Corr. 1B: H314; Skin Sens. 1: H317 - Danger	**<1 %**
CAS: 709014-50-6	**C9-C11 Aliphatic polyether** Skin Sens. 1: H317 - Warning	**<1 %**
CAS: 4394-85-8	**4-morpholinecarbaldehyde** Skin Sens. 1B: H317 - Warning	**<1 %**
CAS: 108-31-6	**maleic anhydride** Acute Tox. 4: H302; Eye Dam. 1: H318; Resp. Sens. 1: H334; Skin Corr. 1B: H314; Skin Sens. 1A: H317; STOT RE 1: H372; EUH071 - Danger	**<1 %**

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

Other information:

Identification	Specific concentration limit
maleic anhydride CAS: 108-31-6	% (w/w) >=0.001: Skin Sens. 1A - H317

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity		Genus
Poly[oxy(methyl-1,2-ethanediyl)],a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)- CAS: 9046-10-0	LD50 oral	480 mg/kg	Rat
	LD50 dermal	Not relevant	
	LC50 inhalation	Not relevant	
Diethylmethylbenzenediamine CAS: 68479-98-1	LD50 oral	598 mg/kg	Rat
	LD50 dermal	1100 mg/kg	Rat
	LC50 inhalation	Not relevant	
3-aminopropyltriethoxysilane CAS: 919-30-2	LD50 oral	1491 mg/kg	Rat
	LD50 dermal	Not relevant	
	LC50 inhalation	Not relevant	
maleic anhydride CAS: 108-31-6	LD50 oral	1090 mg/kg	Rat
	LD50 dermal	Not relevant	
	LC50 inhalation	Not relevant	

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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:

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:

Not relevant

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable 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.

Unsuitable extinguishing media:

Non-applicable

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,...).

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:

For non-emergency personnel:

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SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

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 spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

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.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

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 on general occupational hygiene

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.- Specific storage requirements

Minimum Temp.: 5 ºC

Maximum Temp.: 30 ºC

Maximum time: 12 Months

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 workplace:

EH40/2005 Workplace exposure limits, fourth edition, published 2020:

Identification	Occupational exposure limits		
maleic anhydride	WEL (8h)		1 mg/m³
CAS: 108-31-6	WEL (15 min)		3 mg/m³

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Poly[oxy(methyl-1,2-ethanediyl)],a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)-	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 9046-10-0	Dermal	Not relevant	Not relevant	2.5 mg/kg	Not relevant
EC: 618-561-0	Inhalation	Not relevant	Not relevant	10.58 mg/m³	Not relevant
Diethylmethylbenzenediamine	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 68479-98-1	Dermal	Not relevant	Not relevant	1 mg/kg	Not relevant
EC: 270-877-4	Inhalation	Not relevant	Not relevant	0.13 mg/m³	Not relevant
3-aminopropyltriethoxysilane	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 919-30-2	Dermal	Not relevant	Not relevant	2 mg/kg	Not relevant
EC: 213-048-4	Inhalation	Not relevant	Not relevant	14 mg/m³	Not relevant
4-morpholinecarbaldehyde	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 4394-85-8	Dermal	Not relevant	Not relevant	11.7 mg/kg	Not relevant
EC: 224-518-3	Inhalation	Not relevant	Not relevant	50.3 mg/m³	13.3 mg/m³
maleic anhydride	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 108-31-6	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
EC: 203-571-6	Inhalation	0.2 mg/m³	0.2 mg/m³	0.081 mg/m³	0.081 mg/m³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Diethylmethylbenzenediamine	Oral	Not relevant	Not relevant	0.1 mg/kg	Not relevant
CAS: 68479-98-1	Dermal	Not relevant	Not relevant	1 mg/kg	Not relevant
EC: 270-877-4	Inhalation	Not relevant	Not relevant	0.1 mg/m³	Not relevant
3-aminopropyltriethoxysilane	Oral	Not relevant	Not relevant	1 mg/kg	Not relevant
CAS: 919-30-2	Dermal	Not relevant	Not relevant	1 mg/kg	Not relevant
EC: 213-048-4	Inhalation	Not relevant	Not relevant	3.5 mg/m³	Not relevant
4-morpholinecarbaldehyde	Oral	Not relevant	Not relevant	4.17 mg/kg	Not relevant
CAS: 4394-85-8	Dermal	Not relevant	Not relevant	4.17 mg/kg	Not relevant
EC: 224-518-3	Inhalation	Not relevant	Not relevant	8.93 mg/m³	13.3 mg/m³

PNEC:

Identification				
Poly[oxy(methyl-1,2-ethanediyl)],a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)-	STP	7.5 mg/L	Fresh water	0.015 mg/L
CAS: 9046-10-0	Soil	0.018 mg/kg	Marine water	0.014 mg/L
EC: 618-561-0	Intermittent	0.15 mg/L	Sediment (Fresh water)	0.132 mg/kg
	Oral	0.00693 g/kg	Sediment (Marine water)	0.125 mg/kg
Diethylmethylbenzenediamine	STP	17 mg/L	Fresh water	0.001 mg/L
CAS: 68479-98-1	Soil	0.0056 mg/kg	Marine water	0 mg/L
EC: 270-877-4	Intermittent	0.005 mg/L	Sediment (Fresh water)	0.029 mg/kg
	Oral	0.002 g/kg	Sediment (Marine water)	0.003 mg/kg
3-aminopropyltriethoxysilane	STP	1.3 mg/L	Fresh water	Not relevant
CAS: 919-30-2	Soil	Not relevant	Marine water	Not relevant
EC: 213-048-4	Intermittent	Not relevant	Sediment (Fresh water)	Not relevant
	Oral	Not relevant	Sediment (Marine water)	Not relevant
4-morpholinecarbaldehyde	STP	2000 mg/L	Fresh water	0.5 mg/L
CAS: 4394-85-8	Soil	0.244 mg/kg	Marine water	0.05 mg/L
EC: 224-518-3	Intermittent	5 mg/L	Sediment (Fresh water)	2.69 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0.269 mg/kg
maleic anhydride	STP	44.6 mg/L	Fresh water	0.038 mg/L
CAS: 108-31-6	Soil	0.037 mg/kg	Marine water	0.004 mg/L
EC: 203-571-6	Intermittent	0.379 mg/L	Sediment (Fresh water)	0.296 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0.03 mg/kg

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

In accordance with the order of importance to control professional exposure it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have <<UKCA marking>> or <<CE marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For additional 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	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours	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	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.4 mm)	Replace the gloves at any sign of deterioration.

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

D.- Eye and face protection

Pictogram	PPE	Remarks
 Mandatory face protection	Face shield	Clean daily and disinfect periodically according to the manufacturer´s instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks	For professional use only. Clean periodically according to the manufacturer´s instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

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

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2012:

V.O.C. (Supply):	0.85 % weight
V.O.C. density at 20 ºC:	11.28 kg/m³ (11.28 g/L)

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 ºC:	Liquid
Appearance:	Characteristic
Colour:	Beige
Odour:	Characteristic
Odour threshold:	Not relevant *

Volatility:

Boiling point at atmospheric pressure:	135 - 343 ºC
Vapour pressure at 20 ºC:	1 Pa
Vapour pressure at 50 ºC:	25.97 Pa (0.03 kPa)
Evaporation rate at 20 ºC:	Not relevant *

Product description:

Density at 20 ºC:	1328.5 kg/m³
Relative density at 20 ºC:	1.328
Dynamic viscosity at 20 ºC:	Not relevant *
Kinematic viscosity at 20 ºC:	Not relevant *
Kinematic viscosity at 40 ºC:	Not relevant *
Concentration:	Not relevant *
pH:	Not relevant *
Vapour density at 20 ºC:	Not relevant *
Partition coefficient n-octanol/water 20 ºC:	Not relevant *
Solubility in water at 20 ºC:	Not relevant *
Solubility properties:	Not relevant *
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *

Flammability:

Flash Point:	Non Flammable (>60 ºC)
Flammability (solid, gas):	Not relevant *
Autoignition temperature:	300 ºC
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *

Particle characteristics:

Median equivalent diameter:	Non-applicable

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Not relevant *

*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)

Oxidising properties:	Not relevant *
Corrosive to metals:	Not relevant *
Heat of combustion:	Not relevant *
Aerosols-total percentage (by mass) of flammable components:	Not relevant *
Other safety characteristics:	
Surface tension at 20 ºC:	Not relevant *
Refraction index:	Not relevant *

*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 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated 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	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Precaution	Not applicable	Avoid alkalis or strong bases

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_2), 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 : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

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

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- 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 hazardous for the effects mentioned. For more information see section 3.
  IARC: Zeolites (3); Talc (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous 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 hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with sensitising effects. For more information see section 3.
- Skin: 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 hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: 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.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous 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 hazardous for this effect. For more information see section 3.

Other information:

Not relevant

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Diethylmethylbenzenediamine CAS: 68479-98-1	LD50 oral	598 mg/kg (ATEi)	Rat
	LD50 dermal	1100 mg/kg (ATEi)	Rat
	LC50 inhalation	>20 mg/L	
Poly[oxy(methyl-1,2-ethanediyl)],a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)- CAS: 9046-10-0	LD50 oral	480 mg/kg	Rat
	LD50 dermal	2979.7 mg/kg	Rabbit
	LC50 inhalation		
Glycerylpoly(oxypropeen)triamine CAS: 64852-22-8	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation		
3-aminopropyltriethoxysilane CAS: 919-30-2	LD50 oral	1491 mg/kg	Rat
	LD50 dermal	4000 mg/kg	Rabbit
	LC50 inhalation	>20 mg/L	
C9-C11 Aliphatic polyether CAS: 709014-50-6	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation		
4-morpholinecarbaldehyde CAS: 4394-85-8	LD50 oral	7475 mg/kg	Rat
	LD50 dermal	18400 mg/kg	Rabbit
	LC50 inhalation	>5 mg/L	
maleic anhydride CAS: 108-31-6	LD50 oral	1090 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L	

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SECTION 12: ECOLOGICAL INFORMATION

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

Toxic to aquatic life with long lasting effects.

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
Poly[oxy(methyl-1,2-ethanediyl)],a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)- CAS: 9046-10-0	LC50	>10 - 100 mg/L (96 h)		Fish
	EC50	>10 - 100 mg/L (48 h)		Crustacean
	EC50	>10 - 100 mg/L (72 h)		Algae
Diethylmethylbenzenediamine CAS: 68479-98-1	LC50	194 mg/L (48 h)	Leuciscus idus	Fish
	EC50	0.5 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Not relevant		
Glycerylpoly(oxypropeen)triamine CAS: 64852-22-8	LC50	>10 - 100 mg/L (96 h)		Fish
	EC50	>10 - 100 mg/L (48 h)		Crustacean
	EC50	>10 - 100 mg/L (72 h)		Algae
3-aminopropyltriethoxysilane CAS: 919-30-2	LC50	934 mg/L (96 h)	Danio rerio	Fish
	EC50	331 mg/L (48 h)	N/A	Crustacean
	EC50	603 mg/L (72 h)	Desmodesmus subspicatus	Algae
4-morpholinecarbaldehyde CAS: 4394-85-8	LC50	500 mg/L (96 h)	Leuciscus idus	Fish
	EC50	Not relevant		
	EC50	23880 mg/L (72 h)	Desmodesmus subspicatus	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
4-morpholinecarbaldehyde	NOEC	1 mg/L	N/A	Fish
CAS: 4394-85-8	NOEC	1 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
Poly[oxy(methyl-1,2-ethanediyl)],a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)- CAS: 9046-10-0	BOD5	Not relevant	Concentration	17.6 mg/L
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	0 %
3-aminopropyltriethoxysilane CAS: 919-30-2	BOD5	Not relevant	Concentration	Not relevant
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	67 %
4-morpholinecarbaldehyde CAS: 4394-85-8	BOD5	Not relevant	Concentration	100 mg/L
	COD	Not relevant	Period	30 days
	BOD5/COD	Not relevant	% Biodegradable	100 %
maleic anhydride CAS: 108-31-6	BOD5	Not relevant	Concentration	33.33 mg/L
	COD	Not relevant	Period	29 days
	BOD5/COD	Not relevant	% Biodegradable	98.19 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
Poly[oxy(methyl-1,2-ethanediyl)],a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)- CAS: 9046-10-0	BCF	
	Pow Log	1.34
	Potential	
4-morpholinecarbaldehyde CAS: 4394-85-8	BCF	1
	Pow Log	-1.2
	Potential	Low
maleic anhydride CAS: 108-31-6	BCF	
	Pow Log	-2.61
	Potential	

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SECTION 12: ECOLOGICAL INFORMATION (continued)

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
4-morpholinecarbaldehyde	Koc	1	Henry	2.302E-3 Pa·m³/mol
CAS: 4394-85-8	Conclusion	Very High	Dry soil	No
	Surface tension	Not relevant	Moist soil	No
maleic anhydride	Koc	42	Henry	0E+0 Pa·m³/mol
CAS: 108-31-6	Conclusion	Very High	Dry soil	Not relevant
	Surface tension	1.673E-2 N/m (250.21 ºC)	Moist soil	Not relevant

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances	Hazardous

Type of waste:

HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP8 Corrosive

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste (England & Wales) Regulations 2011, 2011 No. 988. As under 15 01 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-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of UK REACH the provisions related to waste management are stated:

UK legislation: The Waste (England & Wales) Regulations 2011.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:

14.1 UN number: UN2735

14.2 UN proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Poly[oxy(methyl-1,2-ethanediyl)],a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)-; Diethylmethylbenzenediamine)

14.3 Transport hazard class (es): 8

Labels: 8

14.4 Packing group: III

14.5 Environmental hazards: Yes

14.6 Special precautions for user

Tunnel restriction code: E

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: Not relevant

Transport of dangerous goods by sea:

With regard to IMDG 41-22:

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SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN2735

14.2 UN proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Poly[oxy(methyl-1,2-ethanediyl)],a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)-; Diethylmethylbenzenediamine)

14.3 Transport hazard class (es): 8

Labels: 8

14.4 Packing group: III

14.5 Marine pollutant: Yes

14.6 Special precautions for user

Special regulations: 223, 274

EmS Codes: F-A, S-B

Physico-Chemical properties: see section 9

Limited quantities: 5 L

Segregation group: SGG18

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2024:

14.1 UN number: UN2735

14.2 UN proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Poly[oxy(methyl-1,2-ethanediyl)],a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)-; Diethylmethylbenzenediamine)

14.3 Transport hazard class (es): 8

Labels: 8

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: Not relevant

SECTION 15: REGULATORY INFORMATION

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

- Substances listed in UK candidate list of substances of very high concern (SVHCs): Not relevant
- Substances listed in UK REACH Authorisation List (Annex 14): Not relevant

The Control of Major Accident Hazards Regulations 2015:

Section	Description	Lower-tier requirements	Upper-tier requirements
E2	ENVIRONMENTAL HAZARDS	200	500

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK 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:

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SECTION 15: REGULATORY INFORMATION (continued)

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.
Control of Substances Hazardous to Health Regulations 2002 (as amended)
EH40/2005 Workplace exposure limits.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

Texts of the legislative phrases mentioned in section 2:

H318: Causes serious eye damage.
H373: May cause damage to organs through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.
H317: May cause an allergic skin reaction.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.

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

GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):

Acute Tox. 4: H302 - Harmful if swallowed.
Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin.
Aquatic Acute 1: H400 - Very toxic to aquatic life.
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
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.
Resp. Sens. 1: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Corr. 1C: 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. 1A: H317 - May cause an allergic skin reaction.
Skin Sens. 1B: H317 - May cause an allergic skin reaction.
STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure (Inhalation).
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

Classification procedure:

Eye Dam. 1: Calculation method
STOT RE 2: Calculation method
Aquatic Chronic 2: Calculation method
Skin Sens. 1A: Calculation method
Acute Tox. 4: Calculation method
Skin Corr. 1C: Calculation method

Advice related to training:

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:

- CONTINUED ON NEXT PAGE -

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: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

- END OF SAFETY DATA SHEET -